



भारत सरकार Government of India

विद्युत मंत्रालय Ministry of Power

उत्तर पूर्वी क्षेत्रीय विद्युत समिति

North Eastern Regional Power Committee

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



No. NERPC/TCC & NERPC/2025-26/1237 - 1316

Date: 09<sup>th</sup> July, 2025

सेवा में / To,

As per NERPC members List.

विषय: 29<sup>वीं</sup> टीसीसी और 29<sup>वीं</sup> एनईआर पावर समिति की बैठकों के लिए एजेंडा - रेग।

Agenda for the 29<sup>th</sup> TCC & 29<sup>th</sup> NER Power Committee Meetings – Reg.

महोदय/महोदया,

Please find attached herewith the agenda for 29<sup>th</sup> TCC & 29<sup>th</sup> NERPC meeting which are scheduled to be held as per details given below:

| Date                                      | Meeting                | Venue                                              | Time      |
|-------------------------------------------|------------------------|----------------------------------------------------|-----------|
| 17 <sup>th</sup> July, 2025<br>(Thursday) | 29 <sup>th</sup> TCC   | Mayfair Spring Valley<br>Resort, Sonapur, Guwahati | 10:30 Hrs |
| 18 <sup>th</sup> July, 2025<br>(Friday)   | 29 <sup>th</sup> NERPC | Mayfair Spring Valley<br>Resort, Sonapur, Guwahati | 11:00 Hrs |

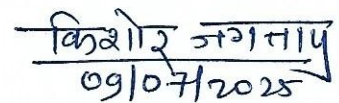
The meetings will be hosted by NETC. The nodal officers for the meetings are as given below:

| Name & Designation                                                | Contact No. | Email                                                                          |
|-------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------|
| Mr. Jyotirmoy Barman, Assistant Manager -<br>Business Development | 9864808133  | <a href="mailto:jyotirmoybarman@netcindia.in">jyotirmoybarman@netcindia.in</a> |
| Ms. Manashi Roy, Assistant Manager -<br>HR&Admin                  | 9804115856  | <a href="mailto:manashiroy@netcindia.in">manashiroy@netcindia.in</a>           |
| Mr. Vivek Pandey, Executive - HR&Admin                            | 7827213800  | <a href="mailto:vivek@netcindia.in">vivek@netcindia.in</a>                     |

It is once again requested to communicate the travel plan of participants to the above Nodal Officers with a copy to NERPC secretariat ([ms-nerpc@gov.in](mailto:ms-nerpc@gov.in) & [nerpc.commercial@gov.in](mailto:nerpc.commercial@gov.in)), at the earliest, for smooth arrangement of the meetings

Kindly make it convenience to attend the meeting for fruitful deliberation.

भवदीय/Yours faithfully,

  
09/07/2025

(के. बी. जगताप /K. B. Jagtap)

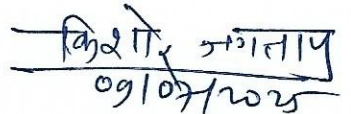
सदस्य सचिव/Member Secretary

**NERPC Members List:**

1. Hon'ble Dy. Chief Minister & In-charge of Power, Govt. of Arunachal Pradesh, Itanagar - 791 111
2. Hon'ble Power Minister, Govt. of Assam, Dispur-781006
3. Hon'ble Minister of Power, Govt. of Manipur, Imphal - 795 001
4. Hon'ble Minister of Power, Govt. of Mizoram, Aizawl - 796 001
5. Hon'ble Minister of Power, Govt. of Nagaland, Kohima - 797001
6. Hon'ble Minister of Power, Govt. of Tripura, Agartala-799001
7. Member (GO&D), CEA, Sewa Bhavan, R. K. Puram, New Delhi - 110 066
8. Commissioner & Secretary (Power), Govt. of Arunachal Pradesh, Itanagar - 791 111
9. Principal Secretary (Power), Govt. of Assam, Dispur, Guwahati - 781 006
10. Commissioner & Secretary (Power), Govt. of Manipur, Imphal - 795001
11. Commissioner & Secretary (Power), Govt. of Meghalaya, Shillong - 793001
12. Commissioner & Secretary (Power), Govt. of Mizoram, Aizawl - 796001
13. Principal Secretary (Power), Govt. of Nagaland, Kohima - 797001
14. Principal Secretary (Power), Govt. of Tripura, Agartala - 799001
15. Chairman, APDCL/AEGCL/APGCL, Bijuli Bhavan, Paltan Bazar, Guwahati - 781 001
16. CMD, MeECL (MePDCL/MePGCL/MePTCL), Lumjingshai, S. R. Road, Shillong - 793 001
17. Chairman, TSECL, Agartala - 799001
18. Managing Director, AEGCL, Bijuli Bhavan, Paltan Bazar, Guwahati - 781 001
19. Managing Director, APDCL, Bijuli Bhavan, Paltan Bazar, Guwahati - 781 001
20. Managing Director, APGCL, Bijuli Bhawan, Paltan Bazar, Guwahati - 781 001
21. Managing Director, TSECL, Agartala - 799001
22. Managing Director, TPGL, Agartala - 799001
23. Chairman & Managing Director, NEEPCO Ltd., Lower New Colony, Shillong - 793 003
24. Director (Technical), NHPC Ltd., NHPC Complex, Sector-33, Faridabad, Haryana - 121 003
25. Director (Finance), NTPC Ltd. NTPC Bhawan, Scope Complex, Institutional Area, Lodhi Road
26. Managing Director, OTPC, 6th Floor, A-Wing, IFCI Tower -61, Nehru Place, New Delhi - 110019
27. Managing Director, NETC, 3rd Floor, DMRC Building, Dwarka Sector-21, New Delhi-77
28. Director (Operation), POWERGRID, Saudamini, Plot No. 2, Sector-29, Haryana - 122 001
29. CEO, NVVNL, Core 5, 3rd Floor, Scope Complex, 7 Institutional Area, Lodhi Road, Delhi - 03
30. Chairman & Managing Director, PTC, NBCC Tower, 15 Bhikaji Cama, Place, New Delhi - 110066
31. COO, CTUIL, Plot No.2, sector-29, Gurgaon, Haryana - 122001
32. ED, NLDC, B/9, Qutub Institutional Area, Katwaria Sarai, New Delhi - 16
33. ED, NERLDC, Dongtiéh-Lower Nongrah, Lapalang, Shillong- 793006
34. CEO, MUMIL, DLF Cyber Park, Udyog Vihar Phase 3 Rd, Sector 20, Gurugram, Haryana-122008

**Copy to:**

PS to Chairman, NERPC and Hon'ble Minister of Power, Govt. of Meghalaya, Shillong - 793001

  
सदस्य सचिव/Member Secretary

### **TCC Members -Copy for kind information**

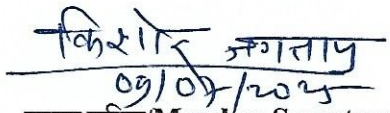
1. Director (Transmission), MePTCL & Chairman TCC, Lumjingshai, S.R. Road, Shillong – 793 001
2. Director (Distribution), MePDCL, Lumjingshai, S.R. Road, Shillong – 793 001
3. Director (Generation), MePGCL, Lumjingshai, S.R. Road, Shillong – 793 001
4. Managing Director, MSPCL, Electricity Complex, Keishampat, Imphal – 795 001
5. Managing Director, MSPDCL, Secure Office Bldg. Complex, Near 2nd MR Gate, Imphal – 795 001
6. Director (Tech.), TSECL, Bidyut Bhaban, Banamalipur, Agartala -799 001.
7. Director (Generation), TPGL, Bidyut Bhaban, Banamalipur, Agartala -799 001.
8. Director (Tech.), NETC, 3rd Floor, DMRC Building, Dwarka Sector-21, New Delhi-77
9. GM (Transmission), TPTL, Bidyut Bhaban, Banamalipur, Agartala -799 001.
10. Executive Director (O&M), NEEPCO Ltd., Lower New Colony, Shillong-793003.
11. Regional ED (East –II), NTPC, 3rd Floor, OLIC Bldg., Pl No- N.17/2, Nayapalli, Bhubaneswar-12
12. Executive Director, NERTS, PGCIL, Lapalang, Shillong - 793006
13. GGM/HoD (O&M), NHPC Ltd., Sector-33, Faridabad, Haryana-12103.
14. Executive Director (Marketing), PTC, NBCC Tower, 15 Bhikaji Cama, Place, New Delhi – 110066
15. Chief Engineer (GM), CEA, 6th Floor, Sewa Bhawan, R.K.Puram New Delhi-110066.
16. Engineer-in-Chief, P&E Dept., Govt. of Mizoram, Aizawl – 796 001
17. Engineer-in-Chief, Dept. of Power, Govt. of Nagaland, Kohima – 797 001.
18. Chief Engineer (TPMZ), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 1
19. Chief Engineer (WEZ), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 1
20. Chief Engineer (EEZ), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 1
21. Chief Engineer (Commercial) -cum- CEI, Deptt. of Power, Govt. of Arunachal Pradesh, Itanagar- 11
22. VP (Plant), OTPC, Palatana, P.O Udaipur, Gomati Dist., Tripura – 799105
23. GM (BD), NVVNL, Core 5, 3rd Floor, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi-3
24. CGM, AEGCL, Bijuli Bhawan, Paltan Bazar, Guwahati – 781 001
25. CGM, APGCL, Bijuli Bhawan, Paltan Bazar, Guwahati – 781 001
26. CGM, APDCL, Bijuli Bhawan, Paltan Bazar, Guwahati – 781 001
27. CGM (LDC), SLDC Complex AEGCL, Kahelipara, Guwahati-781019.
28. Head of SLDC, Dept. of Power, Govt. of Arunachal Pradesh, Itanagar-791111
29. Head of SLDC, Dept. of Power, Govt. of Manipur, Keishampat, Imphal-795001
30. Head of SLDC, MeECL, Lumjingshai, S.R. Road, Shillong-793001
31. Head of SLDC, P&E Dept., Govt. of Mizoram, Aizawl-796001
32. Head of SLDC, Dept. of Power, Govt. of Nagaland, Dimapur
33. Head of SLDC, TSECL, Agartala – 799001
34. ED, NLDC, Grid-India, B-9 (1st Floor), Qutab Institutional Area, Katwaria Sarai, New Delhi-16
35. Dy. COO, CTUIL, Plot No.2, Sector-29, Gurgaon, Haryana-122001
36. Executive Director, NERLDC, Grid-India (POSOCO), Lapalang, Shillong – 793006
37. Head & VP- Regulatory & Contracts, ENICL, Windsor Building, Kalina, Santacruz (East), Mumbai-400098
38. Head (O&M), MUMIL, DLF Cyber Park, Udyog Vihar Phase 3 Rd, Sector 20, Gurugram, Haryana-122008

### **Special Invitee(s):**

1. Member (Power System), CEA, Sewa Bhavan, R. K. Puram, New Delhi – 110066
2. Member Secretary, ERPC, 14 – Golf Club Road, Tollygunge, Calcutta – 700 033
3. Member Secretary, NRPC, NRPC Complex, 18-A, S.J.S. Marg, Katwaria Sarai, New Delhi – 16
4. Member Secretary, WRPC, MIDC Area, Marol, Andheri (E), Mumbai – 400 093
5. Member Secretary, SRPC, 29 – R.C. Cross Road, Bangalore – 560 009
6. Chief Engineer (NPC), CEA, Sewa Bhavan, R. K. Puram, New Delhi – 110066

### **Non-member participants:**

1. Head, Transmission, KMTL, 7th Floor, Fulcrum, Sahar Road, Andheri (E), Mumbai-400099
2. COO, IndiGrid, Unit No. 101, Windsor, Off CST Road, Vidyanagari Marg, Kalina, Santacruz East, Mumbai 400 098

  
09/09/2025  
सदस्य सचिव/Member Secretary



सत्यमेव जयते

भारत सरकार

**Government of India**

विद्युत मंत्रालय

**Ministry of Power**

उत्तरपूर्वी क्षेत्रीय विद्युत समिति

**North Eastern Regional Power Committee**

**AGENDA**

**FOR**

**29<sup>TH</sup> TCC MEETING**

**(UNDER THE AEGIS OF NETC)**

|                   |                                                         |
|-------------------|---------------------------------------------------------|
| <b>Venue</b>      | <b>: Mayfair Spring Valley Resort, GUWAHATI</b>         |
| <b>Date (TCC)</b> | <b>: July 17<sup>th</sup> and 18<sup>th</sup>, 2025</b> |



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**AGENDA FOR 29<sup>TH</sup> TCC MEETING TO BE HELD ON 17<sup>TH</sup> July 2025 AT 10:30 HRS**

**1. MEETING SCHEDULE, CONFIRMATION OF MINUTES & ATR**

**1.1. Meeting Schedule**

| SN | Meeting | Date       | Time     | Venue                                     |
|----|---------|------------|----------|-------------------------------------------|
| 1  | TCC     | 17.07.2025 | 10:30hrs | Mayfair Spring Valley<br>Resort, Guwahati |
| 2  | NERPC   | 18.07.2025 | 11:00hrs | Mayfair Spring Valley<br>Resort, Guwahati |

**1.2. Confirmation of the minutes of 28<sup>th</sup> NERPC Meeting**

The minutes of the 28<sup>th</sup> TCC & 28<sup>th</sup> North Eastern Regional Power Committee (NER Power Committee) meetings held on 20<sup>th</sup> and 21<sup>st</sup> February 2025 respectively in Guwahati were circulated vide letter no. NERPC/TCC & NERPC/2025/4317-4394 dated 10<sup>th</sup> march 2025.

**Comments were received from OTPC regarding agenda point 3.6 in respect of blending of gas at Palatana station and the details are enclosed at Annexure 1.2.**

**TCC and NER Power Committee may confirm the minutes of above meetings.**

**1.3. Action Taken Report on decisions taken in 28<sup>th</sup> TCC/NERPC Meetings**

Action taken report on decisions taken in 28<sup>th</sup> TCC & NERPC Meeting is enclosed (**Annexure-1.3**) for kind information.



**1.4. Arrangement of Agenda of 29<sup>th</sup> TCC Meeting**

| <b>SN</b> | <b>DESCRIPTION</b>                                            | <b>CATEGORY</b> |
|-----------|---------------------------------------------------------------|-----------------|
| <b>1</b>  | <b><u>ITEMS FOR DISCUSSION</u></b>                            | <b>A</b>        |
| <b>2</b>  | <b><u>ITEMS FOR APPROVAL</u></b>                              | <b>B</b>        |
| <b>3</b>  | <b><u>COMMERCIAL ISSUES</u></b>                               | <b>C</b>        |
| <b>4</b>  | <b><u>ITEMS FOR INFORMATION/UPDATE</u></b>                    | <b>D</b>        |
| <b>5</b>  | <b><u>ITEMS RECOMMENDED FOR REFERRAL TO SUB-COMMITTEE</u></b> | <b>E</b>        |



## **2. PART-A: ITEMS FOR DISCUSSION**

### **2.1. INCLUSION OF SIKKIM IN NER REGION” & “AS CONSTITUENT MEMBER OF NORTH EASTERN REGIONAL POWER COMMITTEE - NERPC secretariat**

#### **Background**

Sikkim is a member of North Eastern Council (NEC)/DoNER and all the development activities funded in Sikkim are being shared with NER States. NER members felt that if development activities are being shared by NER States, NER has the right to share the power projects being developed in Sikkim.

Geographically, culturally, etc., Sikkim is very much the part of NER. The challenges faced by Sikkim is similar to that of NER states like RoW, vegetation issues, landslides etc. and devising solution for these challenges will be easier if Sikkim is part of NERPC.

Electrically NER is already connected to ER (via 400kV Bongaion- Siliguri Tx line, 220kV Salakati-Alipurduar Tx line) and NR (via through Agra-Alipurduar-BNC HVDC 800kV). It is not so difficult that Sikkim cannot be connected with NER with some additional steps at Siliguri or Alipurduar.

Power allocation from Sikkim projects is in the purview of Ministry of Power. Power can be reallocated by MoP to NER States.

During the 4<sup>th</sup> NERPC Meetings held on 20<sup>th</sup> & 21<sup>st</sup> August, 2007 following Resolution was adopted “To approach Ministry of Power, Govt. of India for allocation of share from Power Projects of Sikkim to NE States because Sikkim is a constituent state of NEC and all the development fund allocated to NEC is being shared by Sikkim also with all other NE States. Resource of Sikkim now becomes part of NER Resource”.



During the 9<sup>th</sup> NERPC meetings held on 12<sup>th</sup> August, 2010 Chairman, NERPC & Hon'ble Power Minister, Govt. of Meghalaya in his inaugural speech once again stressed that Sikkim being a constituent member of North Eastern Council (NEC) and funds are earmarked for power development in Sikkim and therefore NER States should also have a share from these projects being set up in Sikkim. Chairman, NERPC vide letter dated 28.10.2011 has written letters to Union Minister of Power, Govt. of India, Hon'ble Chief Minister & Power Minister, Govt. of Sikkim requesting them to re-consider the issue of inclusion Sikkim as member of NERPC.

During the 13<sup>th</sup> TCC/NERPC meetings held during 9<sup>th</sup> & 10<sup>th</sup> July, 2012 at Faridabad, Members strongly opined that Sikkim should be included as member of NERPC. A Resolution was also adopted and sent to Hon'ble Union Power Minister, Govt. of India.

Ministry of Power, vide their Resolution dated 25.05.2005 and subsequent amendments has established Sikkim as a constituent member of Eastern Regional Power Committee (ERPC). All the developmental activities in Sikkim State are taking place with financial assistance through North-Eastern Council (NEC)/ Ministry of Development of North Eastern Region (DoNER), including States of NE Region. The benefit of all developmental activities is being utilized by the States in Eastern Region. We, therefore, humbly submit to kindly consider inclusion of State of Sikkim as constituent member of North Eastern Regional Power Committee and to make necessary amendment of the relevant provisions in the resolution dated 25.05.2005 published in the Gazette of India.

Meanwhile, Ministry of Power, Govt. of India vide letter dated 31.10.2018 has desired to get a comments/feedbacks on "whether Sikkim can be included in North Eastern Region in place of Eastern Region, where it is currently included". NERPC had sent comments for inclusion of Sikkim in NERPC vide letter no. NERPC/OP/Committee/2019/1890 dated January 22, 2019 (copy enclosed).



In 9<sup>th</sup> RPC (12<sup>th</sup> August, 2010), members strongly opined that Sikkim should become a member of NERPC due to the factual points:

1. Sikkim is a member of North Eastern Council (NEC)/DoNER and all the development activities funded in Sikkim are being shared with NER States. NER members felt that if development activities are being shared by NER States, NER has the right to share the power projects being developed in Sikkim.
2. Electrically can be easily made from NER to Sikkim with some additional steps.
3. If NER is being connected to ER, it is not so difficult that Sikkim cannot be connected with NER. Any disturbance can be emanated from anywhere not particularly Sikkim.
4. Geographically, culturally, etc., Sikkim is very much the part of NER.
5. Power allocation from Sikkim projects is in the purview of Ministry of Power. Power can be allotted by MoP

Although all the development activities in Sikkim State are taking place with financial assistance through North-Eastern Council (NEC)/DoNER, the benefits from development in the State are being availed by Eastern Regional States only. Many hydro projects are existing or are under execution in the Sikkim State. However, the State of Sikkim is presently a constituent member of Eastern Regional Power Committee. We, therefore, once again request Ministry of Power for kindly considering inclusion of Sikkim State as constituent member of North-Eastern Regional Power Committee and for amendment of the relevant provisions in the resolution dated 29.11.2005 and Ministry of Power Resolution F. No:23/21/2021-R&R dated 03.12.2021 published in the Gazette of India, so that the States of North Eastern Region are able to fully derive benefits from major hydro projects developed in the State of Sikkim.



Hence NERPC forum strongly urged to consider for inclusion of the state of Sikkim as constituent member of NERPC so that share of Power from generation projects in the state of Sikkim is allocated to NE States because Sikkim is a constituent state of NEC and all the development fund allocated to NEC is being shared by Sikkim along with other NE States.

With this background, a resolution to be sent to Hon'ble Union Power Minister, MoP to intervene into the matter so that Sikkim being in NE Region can be granted full membership of NERPC by amending the relevant clause of NERPC.

***TCC may deliberate***

### **2.2. Progress of SCADA-EMS upgradation/replacement systems at Regional/State level in North-Eastern Region - NERLDC**

The extended AMC period for existing (ULDC-Phase II) of the SCADAEMS Project for SLDC-Assam State ends on 11<sup>th</sup> November 2024, and for SLDC-Meghalaya on 31<sup>st</sup> March 2025. Moreover, NER states are already facing financial difficulties in paying the AMC charges for the ongoing SCADA projects, which is hindering the proper service delivery by the vendor, M/s GE T&D India Limited. M/s GE T&D, India is quoting AMC amounts that are three (3) times higher than previous rates for further extension, exacerbating the financial strain. Additionally, the existing SCADA-EMS systems are facing cybersecurity risks due to outdated critical devices (firewall) and the aging servers are unable to support new operating systems due to hardware limitations.

Hence, in view of the same the SCADA-EMS upgradation/replacement is being taken up by NER SLDCs in consultation with Grid-India. NER SLDCs has approached PSDF for 100% funding. Monitoring Committee, PSDF in its 21<sup>st</sup> meeting held under Chairmanship of Secretary (Power) on 17<sup>th</sup> August 2023, agreed for funding of the SCADA/EMS projects (ULDC-Phase III) for the seven NER SLDCs including AMC for 7 years.



Subsequently, the Detailed Project Reports (DPRs) for SCADA/EMS project at main as well as backup control centers and Part B (Civil Works) for setting up of backup control centre of SCADA-EMS for the Load Despatch Centers of the North Eastern Region (NER), for each of the seven NER states, were submitted to PSDF Committee for approval on 16<sup>th</sup> August 2024.

Following multiple discussions in the 86<sup>th</sup>, 87<sup>th</sup>, 88<sup>th</sup>, and 89<sup>th</sup> TESG meetings, and based on TESG's direction, NERLDC prepared a cost estimate for the upgradation of SCADA/EMS proposals for the states of NER. This estimate was based on the latest Letter of Award (LoA) available, which was for SLDC Tamil Nadu.

NERLDC submitted these cost estimates via email on May 2, 2025, applying a 30% cost escalation on the SCADA/EMS project cost of SLDC, Tamil Nadu. These estimates were subsequently discussed in the 90<sup>th</sup> Meeting of the TESG of PSDF, held on May 2, 2025.

As per minutes of 90<sup>th</sup> meeting released on 28<sup>th</sup> May 2025, TESG sought following directions on SCADA Proposals of NER states from Appraisal Committee of PSDF:

- i. Direction on the 30% escalation considered on the LoA costs of SCADA/EMS project of SLDC, Tamil Nadu.
- ii. Direction on mandatory spares which are considered in the range of 7.51% to 8.51% for these proposals.

NERLDC requests the forum to take up the matter appropriately so that PSDF approval can be obtained at the earliest.

***TCC may deliberate***

### **2.3. Status of Construction of Backup SLDC in NER states - NERLDC**

As deliberated in 86<sup>th</sup> Meeting of the TESG of PSDF held on 22<sup>nd</sup> October 2024, TESG has communicated the NER States that civil construction for setting of infrastructure for backup control centres at NER SLDCs is not being funded through PSDF as per the laid guidelines. Hence, all NER state has to



arrange necessary fund for construction of backup SLDC on their own resources.

The status of construction of backup SLDCs is tabulated, states may provide the updated status:

| S. No. | Name of state     | Status of construction of Back up SLDC as per 31 <sup>st</sup> NETeST meeting                                                                                                                                                                                                                                                  |
|--------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | Arunachal Pradesh | Latest Update not available as representative from Arunachal Pradesh was absent.                                                                                                                                                                                                                                               |
| 2      | Assam             | Assam updated that DPR has been submitted with a budget of around 8.5 Cr. to Govt. of Assam for approval of funds for construction of a new building for Backup NERLDC at Samaguri S/S premises of AEGCL. Assam clarified that the cost shall not form part of tariff as it is proposed to be part of Grant by Govt. of Assam. |
| 3      | Manipur           | Latest Update not available as representative from Manipur was absent.                                                                                                                                                                                                                                                         |
| 4      | Meghalaya         | Tender Floated<br>.                                                                                                                                                                                                                                                                                                            |
| 5      | Mizoram           | Budget amount approved, however re-allocation from government expected by end of April 2025.                                                                                                                                                                                                                                   |
| 6      | Nagaland          | It was informed that the earlier proposed location for construction of the backup SLDC at Zhadima has been cancelled. The under construction building available in 132 kV New Kohima S/S (New Secretariat) shall be modified to accommodate the back-up of Nagaland SLDC.                                                      |
| 7      | Tripura           | The proposal for modification of the existing building at S M Nagar Grid S/S (Tripura) has been submitted for approval of BOD which is expected by May 2025.                                                                                                                                                                   |



NERLDC requests all state to provide the periodic updates and show a substantial progress before the pre-bid stage of tendering as it will be difficult to make provision for SCADA/EMS equipment for Backup SLDC afterwards.

***TCC may deliberate***

#### **2.4. Workforce Adequacy at Load Despatch Centres - NERPC secretariat**

The Minister of Power has issued Workforce Adequacy Guidelines for Load Despatch Centres (LDCs) in October 2024 to ensure their smooth operation and enhance capacity building at State Load Despatch Centres (SLDCs). In line with these efforts, the Ministry has introduced guidelines titled as “Workforce Adequacy for Load Despatch Centres and Deputation of Workforce from SLDCs to GRID-INDIA for fixed Terms.”

Workforce Staffing Norms, as per Workforce Adequacy Guidelines for Load Despatch Centres (LDCs) issued by MoP are as follows:

| <b>LDCs - Workforce Staffing Norms</b> |                                                                |                    |                      |
|----------------------------------------|----------------------------------------------------------------|--------------------|----------------------|
| <b>SN</b>                              | <b>Function</b>                                                | <b>Medium SLDC</b> | <b>Emerging SLDC</b> |
| <b>System Operation</b>                |                                                                |                    |                      |
| 1                                      | System Operation - Operational Planning                        | 16                 | 9                    |
| 2                                      | Real Time Grid Operation (For SO only)                         | 26                 | <b>18</b>            |
| 3                                      | Post-Despatch                                                  | 10                 | 4                    |
| <b>Sub -Total (SO)</b>                 |                                                                | <b>52</b>          | <b>31</b>            |
| <b>Market Operation</b>                |                                                                |                    |                      |
| 4                                      | Open Access Administration                                     | 1                  | 1                    |
| 5                                      | Market Coordination                                            | 3                  | 1                    |
| 6                                      | Inter-face Energy Metering, Accounting and Settlement          | 4                  | 1                    |
| 7                                      | Regulatory Affairs, Market Operation Planning and Coordination | 1                  | 1                    |
| <b>Subtotal - MO</b>                   |                                                                | <b>9</b>           | <b>4</b>             |
| <b>Logistics</b>                       |                                                                |                    |                      |
| 8                                      | logistics _Operation technology                                | 8                  | 3                    |
| 9                                      | IT logistics                                                   | 6                  | 3                    |
| 10                                     | Communication logistics                                        | 2                  | 2                    |
| <b>Subtotal - Logistics</b>            |                                                                | <b>16</b>          | <b>8</b>             |
| <b>REMC</b>                            |                                                                |                    |                      |



## NORTH EASTERN REGIONAL POWER COMMITTEE

|                                    |                      |            |           |
|------------------------------------|----------------------|------------|-----------|
| 11                                 | REMC Logistics       | 2          | 1         |
| <b>Cyber Security</b>              |                      |            |           |
| 12                                 | Cyber Security       | <b>13</b>  | <b>10</b> |
| <b>Support Functions</b>           |                      |            |           |
| 13                                 | Contract Services    | 2          | 2         |
| 14                                 | Finance and Accounts | 5          | 3         |
| 15                                 | HR & Admin           | 4          | 3         |
| <b>Subtotal -Support Functions</b> |                      | <b>11</b>  | <b>8</b>  |
| <b>Grand-Total</b>                 |                      | <b>103</b> | <b>62</b> |

Existing manpower\* of NER SLDCs against Workforce Adequacy guidelines for Load Despatch Centres are as follows:

| Sl. No | SLDC              | System Operation                                                                                                                                                                                                                          | Market Operation | Logistics | REMC | Cyber Security | Support Functions(Contract Services, HR & Admin, F&A) | Total  |
|--------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------|------|----------------|-------------------------------------------------------|--------|
| 1      | Arunachal Pradesh | There is no specific segregation of manpower in respective Department. Total 7 executives are there which includes 3 Top management post. The remaining 4 executives are handling any of the above mentioned areas on rotational basis.** |                  |           |      |                |                                                       | 7/62   |
| 2      | Assam             | 17/52                                                                                                                                                                                                                                     | 7/9              | 6/16      | 0/2  | 1/13           | 2/11                                                  | 33/103 |
| 3      | Manipur           | 14/31                                                                                                                                                                                                                                     | 5/4              | 2/8       | 0/1  | 0/10           | 0/8                                                   | 21/62  |
| 4      | Meghalaya         | 14/31                                                                                                                                                                                                                                     | 2/4              | 0/8       | 0/1  | 0/10           | 0/8                                                   | 16/62  |
| 5      | Mizoram           | 3/31                                                                                                                                                                                                                                      | 2/4              | 1/8       | 0/1  | 1/10           | 2/8                                                   | 9/62   |
| 6      | Nagaland          | 6/31                                                                                                                                                                                                                                      | 2/4              | 2/8       | 0/1  | 0/10           | 0/8                                                   | 10/62  |
| 7      | Tripura           | 15/31                                                                                                                                                                                                                                     | 0/4              | 2/8       | 0/1  | 0/10           | 0/8                                                   | 17/62  |

\*As on 01/01/2024

The issue was deliberated in 28<sup>th</sup> TCC & NERPC meetings wherein, the forum acknowledged the serious manpower constraints in NER SLDCs and agreed that a phased approach would be required to address workforce adequacy while ensuring participation in the exchange program. Further, CMD, MeECL suggested exploring the possibility of a centralized agency that could cover cybersecurity and other specialized functions for the entire NER region in absence of cyber security experts in SLDCs. Member (GO&D), CEA suggested that this forum may highlights the workforce shortages issue and critical gaps in SLDCs across NER through resolution to MoP.

***TCC may deliberate***



**2.5. Rationalization of SRAS and TRAS quantum as calculated by NLDC-  
NERPC secretariat**

In 227<sup>th</sup> OCC meeting NER states raised the issue of disproportionality high requirement of the reserve (TRAS and SRAS) vis-à-vis the larger states outside NER. Kindly refer to the table below -

| Requirement of reserve for NER states (%<br>of peak demand) |    | Requirement of reserve for large<br>states (% of peak demand) |       |
|-------------------------------------------------------------|----|---------------------------------------------------------------|-------|
| Meghalaya                                                   | 29 | U.P                                                           | 3.618 |
| Mizoram                                                     | 21 | Rajasthan                                                     | 7.284 |
| Tripura                                                     | 13 | Tamil Nadu                                                    | 4.417 |
|                                                             |    |                                                               |       |

It is to be noted that ensuring such high reserves will increase the cost of power procurement for the states and will ultimately burden the consumers of NER. Further maintain the reserves is also practically challenging.

NER states unanimously requested that the matter may be taken with CERC to address the concern of NER states.

NERPC already written a letter to CERC, dtd 27.06.2025, on the matter and further the matter will be taken up the upcoming RPC meeting for further discussion and for escalating the matter to the Ministry of power.

***TCC may deliberate***

**2.6. Request for Proposal for Down Stream Distribution Network  
connectivity of 33 KV sub-stations implemented/being  
implemented under NERPSIP and Comprehensive Scheme in NE  
States – NERPC secretariat**

During a meeting taken by Additional Secretary (Transmission), Ministry of Power on 14th May, 2024 to discuss the requirement of strengthening of intra-



state transmission system in North Eastern States, it was informed that out of 155 number of 33 KV sub-stations being implemented in NE States under NERPSIP and Comprehensive Scheme, only 49 sub-stations are having Down Stream Connectivity distribution network.

- During the meeting it was decided that Distribution division of CEA would prepare a plan for distribution Down Stream network of 33 KV substations being implemented under the NERPSIP and Comprehensive scheme which would be considered for approval under RDSS by Ministry of Power.
- Down Stream distribution network of some of the 33 KV sub-stations under NERPSIP and Comprehensive scheme have already approved under State schemes/ RDSS/ Ministry of DONOR/NEC Schemes/ or externally funded schemes like ADB, WB etc, however, downstream network of many of the sub-station might still not finalized/approved.
- NE States are requested that the requirement of Down Stream distribution network of remaining 33 KV sub-stations being implemented under NERPSIP and Comprehensive Scheme may be finalized and furnished to CEA so as to submit a comprehensive plan for consideration of MOP for funding under RDSS.
- The Down Stream network may include the 11 KV Panels (if not available at SS), 11 KV lines, associated distribution transformers, LT lines & LT switchgears etc. as per the actual site requirement.
- There should not be any duplication of works with already approved/implemented works.
- CEA has already requested to all NE States vide letter Dt 4-6-2024 to furnish the proposals on the above to CEA on priority

The matter was deliberated in the 26<sup>th</sup> and 27<sup>th</sup> RPC meeting. In 26<sup>th</sup> TCC meeting, CE(DP&T), CEA informed the forum about the status of 33 KV sub-stations under the NERPSIP and Comprehensive Scheme. It was highlighted that while many 33 KV sub-stations have been implemented, a significant



number still lack 11 KV downstream networks. This issue was discussed during a meeting held on 14th May 2024, chaired by the Additional Secretary (Transmission), Ministry of Power. Key points of the deliberation. Further he informed that the RDSS Scheme is available up to March'2026.

Further, in 27<sup>th</sup> RPC meeting Member (GO&D, CEA) informed that downstream distribution networks from three states have been forwarded to the Ministry. Other states were urged to submit their proposals promptly. He further requested NE states to submit the requisite data to CEA at the earliest. RPC emphasized the significance of Down Stream Distribution Network connectivity of 33 KV sub-stations of NER and exhorted all NE States to provide their requirements to CEA at the earliest.

It is highly requested to the remaining states to provide their downstream requirements at the earliest to CEA.

***TCC may deliberate***

**2.7. Capacity building for NER constituents on emerging technologies of Power Sector to be funded through PSDF or any other funds  
NERPC - NERPC secretariat**

NERPC is proposing a capacity building program on “International Best Practices in Energy Transition with Study tour to Europe”, which includes tour to European countries, in consultancy with PowerGrid. The program is proposed to be funded through PSDF.

The details of the program are provided below-

**Programme Objectives -**

The programme is designed to meet the needs of top officials of electricity utilities in India to understand, Europe’s energy transition journey that is built on three primary pillars:



1. Decarbonization: Reducing carbon emissions through the phasing out of coal, oil, and natural gas while increasing reliance on renewable energy sources.

2. Renewable Energy Integration: Successfully integrating large-scale wind, solar, and hydropower into the energy mix, creating challenges and solutions for grid stability and energy storage.

3. Hydrogen Development: Exploring green hydrogen as an alternative fuel source for hard to-decarbonize sectors like industry and transportation.

European countries have implemented robust regulatory frameworks, including market integration, energy storage, and the development of smart grids. The role of Transmission System Operators (TSOs) and Distribution System Operators (DSOs) is central in ensuring the integration of renewable energy into grids while maintaining reliability and flexibility.

### **Programme Design and Overview**

The following is the proposed programme design keeping in view the overarching objective of the programme. The **7-day** international study tour (exclusive of travel) will provide a detailed understanding of:

- Energy Transition Frameworks: Policies and strategies for renewable energy integration and decarbonization.
- Energy Markets: The functioning of the electricity market in Europe, including the roles of TSOs and DSOs.
- Hydrogen Economy: The development of green hydrogen and its integration into national energy systems.
- Renewable Energy Penetration: The European experience of achieving high penetration of wind, solar, and hydropower into the grid.

The tour will include site visits, workshops, and discussions with energy policymakers, experts, utilities, and industry leaders in each country to deepen participants' understanding of these issues.



**Project Cost:** INR **6,88,44,150** for four batches of 15 members each.

**Scope of service** provided by Powergrid:

- i. Tuition fees
- ii. Boarding & Lodging
- iii. Airport Transfers
- iv. Training kit
- v. Visa charges
- vi. Air fare economy (Delhi to Europe to Delhi)
- vii. Medical cum travel insurance
- viii. Tickets (if any) to official engagements (entry tickets to sight-seeing, conferences etc.) and
- ix. Membership to ASCI alumni network

***TCC may deliberate***

**2.8. Exemption/reduction of NPV for projects within the North Eastern States to make the project commercially viable - NERPC secretariat & Mizoram**

According to India State of Forest Report (ISFR) 2023, Ministry of Environment, Forest and Climate Change, the total coverage of Forest area in India is 21.76% which is 7,15,343sq km. Also, the Forest coverage area in the North Eastern State is 53.77 % and 66.52% including Tree coverage area. The Coverage of the Forest Area in the North Eastern State is still very high as compared with other States of India. The Coverage of Forest Area can be seen from the enclosed table from ISFR 2023(**Annexure-2.8**)

However, in spite of the higher forest coverage of the State, the rates of NPV to be realised in lieu of diversion of forest land have been fixed the same for the whole country which put burden and cost to those States with higher Forest coverage than those with lesser Forest Coverage. For instance, States with lesser Forest coverage will have to pay lesser NPV in spite of the State



having less Forest area. However, in a State like North Eastern States with 70 % to 80 % forest coverage, large amount of NPV have to be paid in spite of the State almost fully covered by the Forest Area. With the NPV come into picture, the project cost shoots up which make the project not commercially viable and ultimately detract developers. If this is not corrected, the development in the North Eastern States will come to a standstill due to the State being rich in Forest, trees and biodiversity.

There are provision for certain projects in the order No. 5-3/2011-FC(Vol-I) dated 6<sup>th</sup> January, 2022 from Ministry of Environment, Forest and Climate Change to charge NPV with half the rate with prescribed conditions such as Wind projects and Small Hydel Projects. However, these prescribed conditions are rarely meet to reduce NPV with the current forest condition of these North Eastern States.

Therefore, it is suggested that Ministry of Environment, Forest and Climate Change to exercise

- (1) Exemption of NPV for the North Eastern State for boosting the overall development of the States or
- (2) May devise a way of charging of NPV in accordance to the composition (deficiency or surplus) of Forest area within the State or
- (3) To segregate the NPV from the overall cost of the project and meet the NPV cost from the Central Government to make projects viable commercially in order to attract project developer and to pave way for the North Eastern States (with high forest coverage) to grow in other sectors.

The matter was deliberated in the 227<sup>th</sup> OCC meeting, wherein, Mizoram highlighted that due to higher forest coverage in the north eastern states, compared to other states of India, large amount of NPV have to be paid which shoots up the project costs in the region and makes the project commercially unviable. Other states also echoed the same concern.



It was suggested that Ministry of Environment, Forest & Climate Change may be requested to consider the following points.

1. Exemption of Net Present Value (NPV) of Forest area for NE states.  
or
2. Request for Net Present Value (NPV) of Forest area to be paid by Central Government in the NE states.

*If the above 1&2 is not possible,*

3. To devise a way of charging NPV in accordance with the percentage of Forest area in the state so that states having more percentage of forest cover will pay at lower rates of NPV and vice-versa

The OCC forum noted the concerns of the states. MS NERPC stated that the matter will be referred to the upcoming TCC/RPC meetings for further discussion and necessary action.

***TCC may deliberate***

**2.9. Establishment of Security Operation centre (SOC) at SLDCs for ensuring cyber security readiness of the states – NERPC secretariat**

As stated in clause 3(j) of The Information Technology (Information Security Practices and Procedures for Protected System) Rules, 2018, “an organization having protected systems shall establish a Cyber Security Operation Centre (C-SOC) using tools and technologies to implement real time preventive, detective and corrective controls to secure against advanced and emerging cyber threats. In addition, Cyber Security Operation Center is to be utilized for identifying unauthorized access to “Protected System”, and unusual and malicious activities on the “Protected System”, by analyzing the logs on regular basis. The records of unauthorized access, unusual and malicious activity, if any, shall be documented.”

It is to be noted that Cyber security has become a major concern over the past few years as threats to the OT/IT infrastructure of various enterprises has



increased significantly with increasing frequency and sophistication. The protection of critical information infrastructure and preservation of the confidentiality, integrity, and availability of information in cyberspace is the essence of a secure cyber space.

**Also, as decided in the meeting held under the chairmanship of Secretary (Power) on 'Review of Cyber Security in Power Sector' held on 21.03.2025 The SOC proposals that are submitted under the PSDF-funded scheme should be revised to include indigenous SOC, NOC solutions and a 5-year Annual Maintenance Contract (AMC). (Annexure 2.9a)**

Furter CSIRT-Power has finalised a Model BOQ for PSDF funding of Indigenous SOC (including Indigenous NOC) Projects at SLDCs which is attached as **annexure 2.9b**

In light of the above decisions and guidelines, it is requested to the state SLDCs to prepare the DPR for the SOC with integrated NOC and submit to the PSDF committee at the earliest.

***TCC may deliberate***

### **2.10. Representation in NCT - NERPC secretariat**

MoP vide order No. 15/3/2018-Trans-Part (5) dated 18.02.2025 (**Annexure-2.10**) has reconstituted the existing National Committee on Transmission (NCT) wherein all five Regional Power Committee have been included as member of the NCT. Accordingly, Forum is requested to decide on representation from NERPC in NCT meeting.

***TCC may deliberate***

### **2.11. Critical Grid Constraints in Assam Power System and Need for Early Commissioning of 400/220 kV Substations- Rangia, Sonapur and Khumtai - NERLDC**



On 20<sup>th</sup> September 2024, Assam's power demand reached a peak of 2,687 MW (as per SCADA). Several constraints were observed in meeting this maximum demand, which are highlighted below:

**a) High loading in 400/220 kV Azara ICTs:**

The 400/220 kV, 2\*315 MVA Azara ICTs were loaded beyond 300 MW, nearing a violation of the N-1 contingency criterion. As communicated by the SLDC Assam, the situation was further exacerbated by load restrictions on the 220kV BTPS-Agia Transmission Line, limited to 500 A. One way to control the loading on this line is by opening of 220kV Azara-Agia and 220kV Boko-Agia lines from the 400/220/132 kV Azara S/s end. However, doing so would significantly increase the load on the 400/220 kV Azara ICT, making it non-compliant with the N-1 contingency standard. This poses a serious threat to capital areas of Assam system. Furthermore, 220 kV Salakati-BTPS-Agia-Boko-Azara link plays a critical role in computing the TTC/ATC for the NER region, making its availability even more crucial.

**Remedial actions:** Early commissioning of the approved 400/220 kV Sonapur substations and their associated transmission elements is necessary to alleviate this constraint.

**b) N-1 Contingency Issues on 220 kV Misa-Samaguri D/C Lines:**

During peak demand periods, the 220 kV Misa-Samaguri (D/C) lines does not meet the N-1 contingency criterion. A tripping of either of these lines would lead to a significant reduction in the reliability of the Assam power system, as well as the NER grid network.

**Remedial actions:** Early commissioning of Approved 400/220 Sonapur & Khumtai substations and associated elements



**c) High loading in Rangia-BTPS D/C and Low Voltage in Rangia area:**

The loading on 220 kV Rangia-BTPS D/C is not N-1 compliant for most of the time during peak demand period. Tripping of any one circuit of 220 kV Rangia-BTPS D/C would lead to grid disturbance in these areas. Apart from that, Rangia and Bongaigaon area of Assam Power system are facing severe low voltage issues.

**Remedial actions:** Fast-tracking the commissioning of the approved 400/220 kV Rangia Substation and associated transmission infrastructure is essential to address these challenges and improve grid reliability.

The early commissioning of the planned Rangia, Sonapur and Khumtai 400/220 kV substations and associated elements is critical for ensuring the stability & reliability of the Assam power system, particularly in meeting the high growing demand and fulfilling the N-1 contingency criterion.

As per deliberation of 219<sup>th</sup> OCC meeting, Assam apprised the forum as follows:

400 kV Rangia substation is expected to be around July-2026. For 400 kV Khumtai substation, the 220 kV part is under construction. Fund allocation is not finalized for the 400 kV part.

LoA has been placed for 400 kV Sonapur substation on 13<sup>th</sup> September 2024. The work is expected to be completed by December 2026.

***TCC may deliberate***

**2.12. Review of Tripura Power System Demand Management & Grid Performance - NERLDC**

In the current grid scenario of the **Tripura power system**, generation has remained consistently low for an extended period due to **limited gas supply**. The present generation levels are as follows:



- **AgGBPS – 50-55 MW (average)**
- **Rokhia – 18-20 MW,**
- **Monarchak – 55-60 MW,**
- **Baramura – All units remain under outage condition due to non-availability of gas.**

With the **approaching summer season**, effective **demand management** is crucial to maintain system reliability. A **detailed system study** was conducted to analyse different **N-1 contingency scenarios**, and the most critical case identified is the **outage of the 132 kV SM Nagar (ISTS) – Budhjungnagar transmission line**.

Under this condition, the **Tripura power system can meet demand up to 315 MW load, including 100 MW export to Bangladesh**, with a significant constraint observed on the **132 kV SM Nagar (ISTS) - SM Nagar line, which experiences a loading of 87 MW**.

However, considering that Tripura's peak demand already touched 386 MW on 4<sup>th</sup> May 2024 and is expected to rise to 400 MW during the peak summer months (year 2025), it is evident that the existing transmission infrastructure is inadequate to meet demand while adhering to N-1 reliability criteria. The ability to meet Tripura's projected load reliably depends heavily on the followings:

a) *Expedite Reconductoring of following lines:*

- SM Nagar (ISTS)-SM Nagar T/L*
- SM Nagar (ISTS)-BudhjungnagarT/L*
- PK Bari (ISTS)-PK Bari T/L*
- PK Bari (ISTS)-Ambasa T/L*

b) *Early Commissioning of following lines:*

- 132 kV SM Nagar-Monarchak DC*



ii. *132 kV SM Nagar-Rokhia DC*

c) *Improving the generation from following plants:*

i. *Rokhia & Baramura plants*

All the above work has to be completed at the earliest on priority.

The above issue was also deliberated in 224<sup>th</sup> OCC.

SLDC Tripura is requested to provide updates on the present status of the above and share their resource adequacy plan for managing the upcoming summer season, ensuring effective peak demand management.

***TCC may deliberate***

**2.13. Protection issues in NER and compliance of IEGC 2023 protection code – NERPC Secretariat**

NER protection system has gradually improved over the years resulting in reduction in Grid disturbances and black outs. It is praiseworthy, however, It is also to be highlighted that there are various lingering protection issues in NER and continuous violations of IEGC 2023 are being observed. The issues are being regularly discussed in PCC meetings but states are showing little progress on the remedial measures suggested in the meetings –

1. Internal and External protection audit: regarding the internal audit, some states like Ar. Pradesh have expressed the concern for shortage of manpower to carry out the audits. Regarding the external audit, all the states have raised the issue that carrying out the audit by an external agency will cause financial implications on the state and therefore they are showing reluctance to carry out the audits.
2. IEGC 2023 mandates like submission DR and grid disturbance analysis report and performance indices: states are not submitting the data and reports in a time bound manner and in some cases, no submission has been observed. Issues like lack of trained manpower at the substation,



lack of computer systems etc. are being cited. Such issues are leading to non-compliance of IEGC 2023 and hampering the improvement of protection systems of the states.

3. Various relay coordination issues and non-compliance of NERPC protection protocol: Such non-compliance and miscoordination have been consistently observed in all the NER states except Assam. It is noteworthy that such shortcomings are causing multiple Grid disturbances and blackouts of loads and generating units causing financial losses and disservice to common people.
4. Non-functional protection systems: relay maloperation, failure of CBs and instrument transformers have become a frequent occurrence and no action is being taken despite repeated requests in PCC meetings. This issue is also causing Grid disturbances as in the above point.

Urgent actions are needed to be taken on above points and states have to commit to such endeavour from financial and manpower point of view.

### **TCC may deliberate**

#### **2.14. Ensuring sufficient and qualified manpower at the substations of NER states – NERPC secretariat**

During the protection audits of the substations of the state utilities the following issues have been commonly observed (except for Assam in some cases) -

- i. the manpower manning the substation are very less in numbers and also are not qualified to man the substation.
- ii. Further there has not been regular maintenance of the substations
- iii. there are no SoP for O&M practices at the substations.

Because of these issues Further, equipment are either defected or are in dilapidated condition, rendering the substations vulnerable for faults and blackouts. Also, these issues have caused unsafe operation of the bay elements which may have serious impact on the grid.



***TCC may deliberate***

**2.15. Cyber security workshop**

NERPC is planning to conduct a workshop on Cyber security in Guwahati in physical mode to sensitize constituents on the necessity of maintaining cyber security infrastructure and procedures in place in light of increasing threats of cyber-attacks on the power network.

***TCC may deliberate***

**2.16. Creation of “Training” head under NERPC Establishment Fund for training purpose for the constituents**

NERPC is proposing to create Training head under “NERPC Establishment Fund” for training purpose for the constituents. The trainings will be organized for operation, protection, cyber security and commercial related matters of the power sector for improvement of knowledge and imparting necessary skills to the engineers/officers.

***TCC may deliberate***

**2.17. Qualifying criteria for the selection of prospective bidders (Company) for conducting Third-Party Protection Audits – NERPC secretariat**

- a) In the 15<sup>th</sup> NPC meeting held on 14.11.2024, ERPC had presented the qualifying criteria for the selection of prospective bidders for conducting Third-Party Protection Audits, with the objective of ensuring authenticity and reliability in the audit process. The criteria have been attached at **Annexure-2.17**
- b) The key points of the qualifying criteria for the selection of prospective bidders for Third-Party Protection Audit, as submitted by ERPC, are summarized in the table below:

i. **Technical Criteria**



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| <b>Sub-Category</b>                    | <b>Requirement</b> | <b>Details</b>                                                                                                  |
|----------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------|
| Experience in Protection System Audits | Number of projects | At least 2 protection system audit projects for 132 kV and above since 2019 for generation/transmission utility |
| Consideration of Sub-Contracted Work   | Restrictions       | Sub-contracted work without client consent not considered                                                       |
| Statutory Compliance                   | Upload requirement | Upload statutory requirement documents as per extant rules                                                      |
| Project References & Testimonials      | Mandatory details  | Client name, Contact details, Scope, Value, Duration, Completion Certificate, Performance Report                |

### ii. **Personnel Requirements**

| <b>Designation</b>             | <b>Qualification</b>              | <b>Experience</b>       | <b>Additional Notes</b> |
|--------------------------------|-----------------------------------|-------------------------|-------------------------|
| Team Leader (Option 1)         | Bachelors in Electrical /<br>EEE  | 10 years incl. 2 audits | -                       |
| Team Leader (Option 2)         | Bachelor's +<br>Master's          | 7 years incl. 2 audits  | -                       |
| Team Leader (Option 3)         | PhD +<br>Master's +<br>Bachelor's | 3 years incl. 2 audits  | -                       |
| Protection Engineer (Option 1) | Bachelor's in Electrical /<br>EEE | 7 years                 | Minimum 3 required      |



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|                                |                                       |         |                                                 |
|--------------------------------|---------------------------------------|---------|-------------------------------------------------|
| Protection Engineer (Option 2) | Bachelor's + Master's                 | 5 years | -                                               |
| Protection Engineer (Option 3) | PhD + Master's + Bachelor's           | 3 years | -                                               |
| Documents for Team             | ID, Degree, Experience Cert., CV      | -       | Signed by professional and attested by employer |
| Team Restrictions              | Only listed profiles to conduct audit | -       | Changes need RPC Member Secretary approval      |

### iii. **Financial Criteria**

| Requirement             | Details                                                            |
|-------------------------|--------------------------------------------------------------------|
| Minimum Annual Turnover | As per contract, average over last 3 financial years               |
| Turnover Documents      | Audited Balance Sheets or CA/Cost Accountant Certificate with UDIN |
| New Firms               | Use average of completed years post-incorporation                  |
| MSEs and Start-ups      | Exempted from turnover only; technical compliance mandatory        |

### iv. **Evaluation & Selection Criteria**

| Category                 | Requirement      | Details                                                |
|--------------------------|------------------|--------------------------------------------------------|
| Legal Eligibility        | Entity Type      | Registered in India or authorized international entity |
| Registration & Statutory | Documents        | Registration certificates, statutory clearances        |
| OEM Restriction          | Self-declaration | Not an OEM or authorized rep                           |



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| OEM<br>Restriction           | JV | Self-declaration                                | No JV with OEM                                   |
|------------------------------|----|-------------------------------------------------|--------------------------------------------------|
| Manpower<br>Strength – Total |    | 15 qualified<br>engineers                       | Minimum BE/B.Tech in<br>Electrical/EEE           |
| Manpower<br>Strength – Role  |    | Team Leaders: 3,<br>Protection<br>Engineers: 10 | As per qualification criteria                    |
| Experience                   |    | Minimum 7 years                                 | In protection audits or similar<br>projects      |
| Past Projects                |    | 2 audits since<br>2019                          | 132 kV and above substations                     |
| Turnover                     |    | As per contract                                 | Average over last 3 financial years              |
| Net Worth                    |    | Positive                                        | Must be financially healthy                      |
| Solvency<br>Certificate      |    | Required                                        | Valid document must be<br>submitted              |
| Technical<br>Proposal        |    | Content                                         | Experience, Methodology, Work<br>plan, Timelines |

- v. **Technical Evaluation Criteria:** The technical evaluation will be based on the bidder's expertise, approach, and resources.

| Criteria                                                    | Score                        |
|-------------------------------------------------------------|------------------------------|
| Experience – No. of Projects ( $\geq 4$ / 3 / 2 / $< 2$ )   | 30 / 20 / 10 / Not eligible. |
| Scale – No. of Bays/Elements audited ( $\geq 20$ / $< 20$ ) | 20 / 10                      |
| Nature – No. of Gen. Stations audited ( $\geq 3$ / 1-2 / 0) | 20 / 10 / 0                  |
| Team Lead Experience ( $\geq 4$ / 2 / $< 2$ projects)       | 20 / 15 / Not eligible.      |
| Protection Engineers' Experience (All / At least 2)         | 10 / 5                       |



- vi. **Financial Evaluation:** Based on **bid price (excl. GST)**  
**Final Score** = 70% Technical + 30% Financial
- vii. **Disqualification Clause:** Any L1 bidder in Govt. tenders in the **last 1 year** who:
- a) Refused to execute a contract, OR
  - b) Quoted unworkable prices (e.g., violating minimum wage/statutory norms),  
**will be disqualified** without further justification.

The matter was deliberated in the 16<sup>th</sup> NPC meeting held on 04.07.2025, wherein it was referred to RPCs for observations and inputs. Therefore, it has been placed in this forum for deliberation.

***TCC may deliberate***

**2.18. Report of the Committee to Evolve a Mechanism for Ensuring Thermal Generation at Technical Minimum Level for Grid Stability and Renewable Energy Integration – NERPC secretariat**

1. The rapid increase in renewable energy penetration, combined with periods of low demand has created significant operational challenges for the grid as well as thermal generators in India. During weekends/holidays solar hours, the availability from Variable RE is high, consequently the requisitions from several inter-state thermal stations by beneficiary is nil or negligible resulting in injection schedules below the minimum technical levels (MTL). However, these generators are still required to provide firm supply during non-solar hours/evening peak hours.
2. During the meeting dated 26.05.2025, Chairperson, CEA, observed that several thermal generators, particularly Central Sector owned units, were being scheduled below their technical minimum limits during day time despite their requirement during non-solar/evening peak demand. NLDC also reported persistent high frequency operation and the need for limiting



RE generation especially during weekends with lower demand, by deployment of TRAS emergency provisions after exhausting the downward regulation capability from conventional sources.

3. To resolve the above issues, **NPC Division vide letter dated 30.05.2025** constituted a committee under the chairmanship of the Member Secretary (NRPC) with representatives from RPCs, GM Division, CEA, CERC, NLDC, RLDCs as Members and Member Secretary, NPC as the Member Convener.
4. The primary mandate of the Committee is to develop a common mechanism to ensure adequate scheduling of thermal generation during daytime hours upto technical minimum for ensuring sufficient ramp-up capabilities to maximize the thermal availability during evening/ non-solar peak hours. This will ensure secure and reliable grid operations, support the integration of RE sources, and help avoid operational and commercial challenges for generating units nationwide.
5. The terms of reference of the meeting are as follows:
  - i. Review the current scheduling and dispatch practices of all thermal generators, particularly during Solar/high RE hours and propose mechanism for ensuring technical minimum schedule of thermal generators to support grid balancing and reliability during Non-Solar/evening hours.
  - ii. Assess operational constraints, technical minimum limit issues, and ramp-up/ramp-down capabilities of all thermal generators, to ensure the maximum availability during Non-Solar hours.
  - iii. Recommend a common mechanism for:
    - a) Ensuring all thermal units are scheduled above their technical minimum limits during solar hours and moderating other generation sources including RE for ensuring reliable grid operation during Non-Solar hours.
    - b) Maintaining sufficient ramp-up capability of thermal generating units to meet the Non-Solar/evening demand.



- iv. Address commercial and regulatory aspects linked to the common mechanism being finalized for operation of thermal generating units.

## **6. RECOMMENDATIONS:**

The meeting of the committee was held on 03.06.2025 & 12.06.2025 and based on extensive deliberations and inputs/comments received from members, the committee has recommended the following short term and long term solutions to ensure Thermal Generation at Technical Minimum level for Grid Stability and RE Integration:

### **1. Short Term solutions (within 1 year):**

- a) Implementation of minimum technical load (MTL) level of 55% immediately on pan-India basis and 40% as per phasing plan for all units, irrespective of their ownership at Intrastate/Interstate level and establishment of monitoring mechanism to ensure compliance with the CEA (Flexible Operation of Coal based Thermal Power Generating Units) Regulations, 2023. **Exemption, if any, may be granted by SERC/CERC on technical ground.**
- b) **State Grid Codes shall be aligned** with the Central Electricity Authority (CEA) “Flexible Operation of Coal based Thermal Power Generating Units” regulation 2022, notified in January 2023 and IEGC 2023. Suitable directions needs to be issued to SERCs by Ministry of Power/CEA to notify commercial compensation mechanism as per CEA guidelines to ensure the MTL of 55%, which in force from 01.02.2024 as per CEA (Flexible Operation of Coal based Thermal Power Generating Units) Regulation 2023 **on sustained basis.**
- c) Generators maintaining MTL of 40-45% may be given more preference (bypassing Merit Order when required for maintaining down reserves) and units may be kept on bar.



- d) Directions from RPCs may be issued to existing PSPs to make all pumps operational and also use as a load during solar hours as envisaged in Optimal Generation Mix Report of CEA.
- e) Time lines for scheduling for all Intra State generators also need to be streamlined/harmonized with CERC IEGC Regulation 2023 which will ensure equitable comparison and similar provisions of scheduling of power.
- f) There is a need to create **equitable balance** between the supply obligation of generators under IEGC Regulation 2023 as well as offtake obligation of drawing entities/ beneficiaries of the generators. Beneficiaries requisitioning power during non-solar hours from an ISGS shall have Offtake obligations from those stations during solar hours. Beneficiaries may be mandated to maintain a minimum requisition as percentage of maximum requisition in a day, during the lean hours to ensure operationally reasonably schedule during lean hours and availability in non-solar hours. If the ratio cannot be maintained, one or more units from that station could be allowed to be taken under reserve shutdown to replenish down reserves. Once the unit is taken under reserve shut down, the aggregate requisition by beneficiaries in that station should be restricted to the declared capacity corresponding to the units on bar in that station. The **proposed ratio of minimum and maximum requisition by the beneficiary in a generating station during a day may be 40%.**
- g) De-commitment of the Thermal units through SCUC is required to be included in regulatory provisions (CERC/SERC). The unit which is not committed under SCUC by NLDC 1500 hrs on day ahead and its schedule remains below MTL level by 2200 hrs on day ahead basis may be allowed to de-commit. The time between 1500 hrs and 2200 hrs would be the time available to the beneficiaries to revise their schedules to either support the unit by giving schedule above MTL or



reduce their schedule from those units. **The de-committed unit will have no supply obligation while it will be able to maintain its DC.**

- h) Optimal number of thermal units may be kept on bar during solar hours by NLDC/RLDC/SLDCs to meet non-solar hours demand. Excess generation is leading to frequency excursions. **Empowering NLDC/RLDC/SLDC to take out units under exigencies.**
- i) Suitable provisions may be provided for **higher DSM charges on entities for over-injection or under-drawl by the entities when the grid frequency exceeds 50.05 Hz during solar hours/off-peak hours**, irrespective of the nature (both RE and non-RE) of the entities. However, **under-injection/over-drawl by the entities when the grid frequency exceeds 50.05 Hz during solar hours/off-peak hours, irrespective of the entity type (RE or non-RE), should attract a lesser penalty and incentivization may be considered.** Further, during the schedule revision under TRAS Emergency provision, over injection may not be allowed and the volume limit may be made as Zero during such time period.
- j) Necessary Regulatory provisions for participation of all ISTS & InSTS generators for giving Ancillary Service support to the Grid are required. Ancillary service regulations should be brought out by SERC for intra state level in line with CERC Ancillary Service Regulation. TRAS Shortfall & TRAS Emergency needs to be brought out by all SERC which may include backing down of RE as last resort. Suitable directions needs to be issued to SERCs by Ministry of Power/CEA in this regard.
- k) NTPC Ltd. shall develop and share Standards Operating Procedure for implementation of 55% minimum turn down level in intrastate thermal power stations. Training program to be conducted in NPTI with



support from NTPC Ltd. for employees of state thermal generators/IPPs for running intra state plants upto 55% MTL.

- l) Energy storage capacity to be created/ augmented in interstate as well as intra-state system. States may accelerate the commissioning of the required storage capacities.

**2. Long Term solutions (Beyond 1 year):**

- a) Ensuring 40% MTL for all coal based thermal generators both at ISTS & InSTS on sustained basis. Other technological intervention may be considered by generators (storage etc.). Monitoring of the same has to be done rigorously.
- b) Two shift operation/taking out units on weekends/holidays/high wind season needs to be implemented. Before implementation two shift operation of thermal Generating units must be performed on pilot basis in each region and potential damage including wear & tear, O&M, and plant life spans should be thoroughly examined before final implementation. Wear & tear, O&M, plant life spans and cost implications may be properly recorded during pilot two shift operation.
- c) Peaking capacity may be considered with technical and commercial aspects with well-defined rules. This will further optimise number of units on bar, ensuring MTL at solar hours and also enable the states to meet the evening peak demand.
- d) Energy storage (BESS, PSP etc.) need to be promoted rigorously to integrate the RE targets. BESS installation in existing thermal stations (Both Inter and Intra State thermal stations) may be one of the options for storing excess energy during solar hours.
- e) Each control area needs to maintain the reserves (Up & Down) as calculated by NLDC in different timeframes to control and manage the deviations and other grid parameters.



- f) Demand response needs to be promoted. Initially large industries with captive generation may be focused.
- g) TOD tariff with lower tariff during solar hours and higher tariff during evening needs to be implemented by all SERCs.

**TCC may deliberate.**

### **2.19. Non-functional 48V DC battery chargers installed under NERPSIP - MePTCL**

The non-functional status of the 48V DC battery Chargers installed at NEHU, Mawlai, Nongstoin, Nangalbibra and Rongkhon grid substations of MePTCL had been discussed during the 27<sup>th</sup> TCC & NERPC meetings (Agenda 6.1) . The forum had opined that the matter was to be discussed in Sub-Committee meetings. Accordingly, the matter was discussed during the 30<sup>th</sup> and 31<sup>st</sup> NETeST meetings as agenda items 2.19 and 2.14 respectively wherein the implementing agency, POWERGRID, had assured rectification of the defects by the 31<sup>st</sup> March, 2025.

However, it is regretted to inform that these issues are still pending thereby affecting operation as well as telemetry of the substation concerned. This in turn had impacted (i) real time system operation due to absence of telemetered data and (ii) the percentage of telemetry availability of MePTCL. POWERGRID (NERPSIP) had been repeatedly requested to rectify the issues but till date there has not been any response whatsoever.

MePTCL is, therefore, compelled to refer the matter again to the TCC/NERPC forum in the interests of reliable power system operation and telemetry availability. POWERGRID may be requested once again to resolve the issues and to specify a time line thereof failing which, the forum may explore the possibility for penalising the implementing agency for excessive delay in resolving the issues.



## **2.20. REDUCTION OF PRICE QUOTED FOR AMC OF SAMAST - MePTCL**

During the 27<sup>th</sup> TCC and NERPC meetings, the following decisions were made:

1. M/s PWC was advised to provide a detailed state-wise justification explaining the reasons for the high AMC costs. M/s PWC was also asked to get assistance from Infotech (Hardware Partner) in the matter.
2. M/s PWC was requested to present a module-wise cost breakup, including a distinction between basic AMC and comprehensive AMC (which includes equipment replacement). NER States will accordingly place the AMC by selecting the suitable modules as per their needs and minimize the cost of AMC.
3. Similarly, for the metering part M/s Genus to provide state wise justification as well as module-wise cost breakup for the AMC. NER States will accordingly place the AMC by selecting the suitable modules as per their needs and minimize the cost of AMC.

However, this is to inform that till date, only M/s Genus Infrastructure Pvt Ltd had provided the price for 5 years' AMC amounting to Rs.3.6 crores whereas there has been no response from M/s PWC. To facilitate a decision on the AMC of SAMAST, the forum is requested to take up the matter requesting M/s PWC to submit the information as deliberated during the 27<sup>th</sup> TCC and NERPC meetings.

## **2.21. Funding of proposals for strengthening of Intra State Transmission System of Meghalaya approved by CEA and CTU up To 2032 time frame - MePTCL**

During the 27<sup>th</sup> TCC and NERPC meetings, NERPC forum had acknowledged the importance of Meghalaya's intra-state transmission projects and agreed to support the state's request for priority funding assistance considering MePTCL and other NER state financial constraints. A resolution in this regard had been sent to the Ministry of Power with request for prioritized funding for such important project in NER including Meghalaya. This was conveyed



during the 28<sup>th</sup> TCC and NERPC meetings. The status regarding consideration of the request is still not known.

Moreover, CEA, in its Report on Transmission System Requirements for North Eastern States and Sikkim up to the year 2031-32, had recommended that a transmission scheme may be formulated for all the intra state transmission proposals of NER state & Sikkim in line with NERPSIP and CSSTDS for implementation of the identified system considering the availability of funds with States. Wherever the State seeking/has tied up funding from other sources, the approved transmission proposals may be excluded from this new scheme. However, if funding has not been tied up, the same may be considered in the scheme. The elements shall be removed from the scheme if the funding is sanctioned before taking up the scheme.

Accordingly, it is requested that the forum may please pursue the matter again with MoP. It may also be mentioned that the exercise/study conducted by CEA for examining intra state transmission proposals up to the year 2034-35 and for assessment of Transmission Adequacy is in the final stages.

#### **2.22. Bus Strengthening of 132kV and 33kV system at 132/33/11kV Kohima Sub-station – Nagaland**

The 132/33/11 kV Kohima Sub-station plays a vital role in Nagaland's power transmission network, acting as a key node for delivering power to the state capital and surrounding districts, including Tseminyu, Wokha, Phek, Meluri and Kiphire. The 132/33/11kV Kohima Sub-station is connected to the grid through the 132kV Karong-Kohima, 132kV Dimapur PG-Kohima, 132kV Zhadima-Kohima and 132kV Meluri-Kohima Lines. The sub-station is also linked to the Doyang HEP through the 132kV Doyang-Sanis-Wokha-Chiephobozou-Zhadima-Kohima line and Likimro HEP through the 132kV Likimro-Kiphire-Meluri-Kohima line. The sub-station is linked to two(2) inter-state elements through the 132kV Karong-Kohima and 132kV Dimapur PG-Kohima lines. The sub-station not only plays an important role in system



stability and reliability of Nagaland but also for Northern Part of Manipur State. Presently, the sub-station caters power to the entire State Capital with an existing load of approximately 45.6 MW. Kohima, the capital city of Nagaland state, has been selected in the list of Smart City Initiative by Government of India. As such, numerous socio-economic infrastructural developments are underway. Therefore, the Sub-station is expected to experience a substantial increase in loading due to increased load demand and capacity addition of upcoming generation sources. Besides the existing Likimro HEP (24MW), upcoming generation sources includes the proposed Tizu Valley HEP (24 MW), Zungki HEP (24 MW), Lower Tizu HEP (42 MW), Ponglefo HEP(1 MW), Lower Likimro HEP (8.1 MW) thereby cumulatively contributing an additional 123.1 MW to the grid. Consequently, the projected future loading on the 132/33/11kV Kohima sub-station is estimated to be around 190 MW.

The Sub-station presently operates on a Single Bus Bar arrangement and hence, the sub-station is highly vulnerable to disruptions. Any system breakdown or fault on the Bus leads to complete outage causing entire blackout of the state Capital severely disrupting essential public services, administrative operations, government functions and also affects the reliability and stability of power to its adjoining districts. There have been many incidents in the past where a fault on the Bus has led to blackout of the entire capital and its adjoining areas. This particular issue has been taken on a serious note by North Eastern Regional Power Committee (NERPC) & North Eastern Regional Load Despatch Centre –Grid India (NERLDC) and subsequently discussed multiple times at NER-Power Co-ordination Committee (NER-PCC) & Operation and Co-ordination Committee (NER-OCC) meetings. During 54th, 55th, 56th, 57th and 58th PCC Meetings NERPC has strongly recommended for Bus Strengthening of 132kV and 33kV at Kohima sub-station. However, due to funding issues and space constraint, the proposed strengthening / upgradation could not be implemented. Strengthening of existing 132kV and 33kV Bus Bar from Single to Double busbar system is therefore vital to enhance system reliability.



The sub-station is also constrained in terms of available land for expansion and the aging switchgear components necessitates the need for a major upgradation to accommodate the future demand, improve fault tolerance and support modernization of the grid. Due to the hilly terrain of the sub-station, the 132kV bays at the sub-station are constructed at three different elevation levels in a cascading arrangement. On 28th June 2019, the Executive Director, NERLDC on his visit to 132/33/11 kV Kohima Sub-station also remarked on the limited space and congestion within the sub-station, noting that any future expansion and modification or strengthening would be challenging under the existing AIS setup. In 2024, the Department engaged M/s Hitachi Energy India Limited for conducting system Study of 132/33/11kV Kohima Sub-station. During their site visit, the firm observed the existing cascading layout of the 132kV bays and the space constraint of the sub-station and suggested for conversion of the existing 132kV AIS substation to Hybrid-GIS substation. Conversion of existing AIS Bays to Hybrid GIS not only offers the benefit of space optimization for construction of Double Bus Bar arrangement but also has the advantage of compactness, reduced maintenance cost and high reliability, making it a viable solution due to constrained space installations. The 33kV Hybrid-GIS arrangement at Kohima Sub-station will also increase reliability of the 33 kV voltage network and ensure better protection coordination with the 11 kV and LT levels.

Considering the existing load, future load demand and integration of upcoming Hydro Power stations projects, the bus loading is expected to touch about 190MW. This will require replacement of ACSR Single Panther Bus with ACSR Twin Moose Bus, as the present bus is not sufficient to handle the projected load growth.

The 132/33/11kV Kohima sub-station was commissioned during the 1980s and has been a vital infrastructure for power distribution in the State capital and adjoining areas since then. Given it's age, the existing control panels have been in service for a very long time and with the advancement in control panel



automation system through Substation Automation System (SAS), modernization of control room with modern SAS will enable real-time monitoring, fault isolation and remote operation by integration with SCADA system thereby ensuring better system control and fault response times.

The proposal “Bus Strengthening of 132kV and 33kV system at 132/33/11 kV Kohima Sub-station” consists of following scope of works:

- a) Conversion of 132 kV & 33kV AIS Bays to Outdoor Hybrid Gas-Insulated Sub-station (GIS).
- b) Strengthening of the Existing 132 kV & 33kV Busbar from Single to Double Busbar Configuration.
- c) Replacement of 132 kV & 33kV Busbar Conductor from ACSR Panther to ACSR Twin Moose conductor for 132kV system and ACSR Moose conductor for 33kV system.
- d) Replacement of existing 132kV and 33kV Control Panels with 132kV and 33kV Control Panel with Automation System.
- e) Substation Automation System (SAS).

The project has been conceptualized and proposed with the following **goals & objectives:**

- i. The proposed strengthening of 132kV & 33kV bus shall enhance reliability of power to the State capital and it's adjoining areas.
- ii. The Double Bus Bar scheme shall provide system redundancy and enable parallel operation and maintenance at both 132kV and 33kV levels thereby ensuring uninterrupted power supply and also minimize outage during contingency and scheduled maintenance.
- iii. Hybrid GIS will reduce operation and maintenance cost as compared to AIS.
- iv. Improved system design, support higher short-circuit levels and ease of future addition of new elements.



- v. Up-gradation of busbar conductors will enhance load carrying capacity for projected load growth and integration of upcoming generation sources.
- vi. Integration of SAS and SCADA systems through modernization of the Control Room of the 132/33/11kV Kohima Sub-station shall enable real-time monitoring, fault isolation and remote operation thereby ensuring better system control and fault response times.

In view of the above considerations, with the objective to enhance capacity, reliability, and resilience of power supply across Kohima by modernizing and upgrading the 132/33/11 kV Kohima Sub-station through the implementation of Hybrid GIS, double busbar configuration, and automation systems the proposal for “Bus Strengthening of 132kV and 33kV system at 132/33 kV Kohima Sub-station” with an estimated cost of **Rs. 5956.60 lakh** is hereby submitted for consideration of funding under PSDF

**TCC may deliberate.**

### **2.23. Urgent Review of Online Element Transfer at PLHPS - NERLDC**

The Bus Scheme of PLHPS at the 132 kV level is a Double Main scheme and 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. However, due to issues with isolator alignment at the Panyor 132 kV bus system, the station is currently unable to perform such online transfers, as noted in the 225<sup>th</sup> OCC meeting.

As per deliberation of 226<sup>th</sup> OCC meeting held on 20<sup>th</sup> May 2025, Forum opined that ensuring the online element transfer facility at the station is critical for reliable operation of the grid and urged NEEPCO to present a plan for rectification/replacement of the isolators before next OCC meeting.

NEEPCO is requested to provide an update on the current status of this issue.



### **3. PART-B: ITEMS FOR APPROVAL**

#### **3.1. Endorsement for consideration of NETC petition to CERC for allowing Additional Capitalization on account of works necessitated due to Force Majeure condition - Damage to towers/ tower foundations of Palatana-Silchar T/L of the 400 kV D/C Palatana-Bongaigaon Transmission System of NETC caused due to Land Slide/ Soil Erosion during the recent incessant rainfall in the State of Tripura: NETC**

The state of Tripura witnessed very heavy rainfall and unprecedented floods in the month of August 2024, causing loss of human lives and extensive damage, destruction and loss of both public and private infrastructure & properties and subsequently the state of Tripura was declared as “Natural Calamity Affected Area” vide notification dated 27<sup>th</sup> August, 2024 by the Relief, Rehabilitation and Disaster Management, Government of Tripura (Copy of the notification enclosed as **Annexure-3.1a**).

NETC submitted an agenda (item no. C.5 – copy enclosed at Annexure-2 for reference) in the 218<sup>th</sup> OCC meeting held on 12<sup>th</sup> September, 2024 at Guwahati informing about the status of the damages caused and also requesting that NETC being a single project organization (Transmission line from Palatana to Bongaigaon through Silchar, Byrnihat & Azara) with limited resources, will find it difficult to bear such major financial implications for these protection works and tower shifting necessitated due to Force Majeure and proposed that the financial implications incurred on this account may be considered. The agenda was deliberated by the sub-committee and the deliberation of the sub-committee are presented hereunder;

Quote:

*“NETC informed the forum that due to heavy rain in Tripura massive landslides had occurred which left some towers of the line vulnerable and prone to collapse. NETC also informed the forum that immediate action needed to be taken to restore the condition of the affected tower. NETC further requested that*



*a sub-group under aegis of NERPC may be formed so that the same might visit the affected locations and suggest the immediate and long-term solution to the problem. NERTS (North Eastern Regional Transmission System) suggested that on the basis of study and suggestion of the sub-group, some guidelines may be framed for future references.*

*After detailed deliberation, the forum opined to form a sub-group consisting of representatives of CEA, NERPC, NERLDC, POWERGRID, IIT Guwahati, Assam, Meghalaya and Tripura.”*

*Unquote.*

NERPC vide order No. NERPC/SE(O)/OCC/2024/3642-3649 dated 09<sup>th</sup> January, 2025 (copy enclosed as **Annexure-3.1b** for reference) informed the formation of NERPC sub-group to visit & inspect the vulnerable towers of the 400 kV Palatana-Silchar TL and suggest remedial measures. The sub-group visited on 20<sup>th</sup> January, 2025 & 21<sup>st</sup> January, 2025

Subsequently, the NERPC sub-committee visit report was presented in the 223<sup>rd</sup> OCC meeting held on 28<sup>th</sup> February 2025 and after necessary deliberation of the same, 10 (ten) days' time was given to all constituents to register any objections or comments, if any. However, no objections or comments were received from any constituents and the same was unanimously accepted by all the Constituents. (Copy of the NERPC sub-committee visit report and minutes of 223<sup>rd</sup> OCC meeting is enclosed herewith as **Annexure-3.1c and Annexure-3.1d** for reference.)

Subsequently, an agenda pertaining to the subject matter (item no. 12.1 – copy enclosed as Annexure-6 for reference) was submitted by NETC in the 55<sup>th</sup> Commercial sub-Committee Meeting (CCM) held on 22<sup>nd</sup> May, 2025 at Agartala, Tripura informing about the recommendations of the NERPC sub-committee report, the preliminary cost estimate of Rs. 3.27 Cr. (based on DSR, 2023) for the recommended protection works for 8 tower locations and the status of the protection works. The said details of recommended protection



works were requested for endorsement to higher forums of TCC & RPC. During the meeting, the matter was deliberated in details with all the stakeholders and it was accepted by all the constituents without any objection.

Further it is to inform the forum that the urgent works in line with the recommendations of the NERPC sub-committee has been initiated. The works at 02 (two) tower locations (i.e. tower no. 200 & 217) have commenced and the tendering process for balance six locations is under process. Considering the vulnerable situation of the foundation of the all eight tower locations, the work is targeted to be completed at by early 2026. It is to mention that the proposed slope protection works shall make the tower locations safe thereby prolonging the life of the line and ensure overall reliability & availability of the transmission system and NER grid.

It is to mention that for consideration of the petition to be submitted by NETC to CERC for allowing Additional Capitalization on account of works necessitated due to force majeure (regulation 26(1)(c) of Terms & Conditions of Tariff Regulations, 2024), endorsement of forums i.e. TCC & RPC are invariably required. Hence, this proposal is submitted to this forum for necessary consideration and endorsement.

### ***Placed for approval of TCC***

### **3.2. Cyber-security in SAS Upgradation (Agenda by NERTS):**

1. Cyber Security in Power Sector, drafted on the guidelines from CEA-2021 warrants nullifying Cyber Intrusion attempts in critical Infrastructure such as SAS/ SCADA system of a Sub-station.

To this effect it is imperative that, Systems in place are regulated with updated Software versions/ patches and Protection mechanisms for OT systems as well as Phasing out of Obsolete systems-

2. The 03 sub-stations of NERTS, Mokokchung, Tezu and Roing are under O&M stage and SCADA: GE Make DS agile at Mokokchung and



Schneider Make PACIS at Roing & Tezu had been commissioned as follows:

- Tezu & Roing: 2016-17
  - Mokokchung : 2015
3. On the software- SAS (Substation Automation System) is operating on Windows XP and its associated Hardware. Now, win 8.1 as well as Windows XP as on date is obsolete in the market, and its Services also stopped by Microsoft. It is ending Life and end of support product thus no patches/updates are available for the same-
4. In line, any End point protection will be non-compatible with the existing System and thereby increasing the attack surface, therein the Risk mitigation controls fail to be compatible with Win XP Solution-
5. Hence, with CEA Cyber security Guidelines as framework- to counter such cyber vulnerabilities it is planned to upgrade the existing SAS System in the 03 stations to an updated version, along-with the compatible Hardware requirement so as to have much more secured and patched backbone of Monitoring/ Control of a Sub-station.

The Cost estimate for the Upgradation works amount to Rs 1.5 Crore (approximately).

The Bidders will be required to perform the FAT & SAT under Indian Standards IS 15953:2011 SCADA System for Power System Applications as a methodical approach to the verification and validation of a substation solution thereby enabling a better Cyber Risk mitigation to the OT System.

Thus, considering the requirement as part of a vision of safe and secure Power Network the Financial Implication such Upgradation may be considered under POC Mechanism-

**Deliberation of the 55<sup>th</sup> CCM:**

The representative of PowerGrid informed the forum that the Substation Automation System (SAS) was installed at Tezu and Roing in 2016-17 and at Mokokchung in 2015, and it now requires upgradation. The estimated cost



for this work is around ₹1.5 crore.

In response to a query about the cost estimate, PowerGrid further informed the forum that the cost estimate was based on quotations received from relevant vendors. PowerGrid also informed the forum that the final cost of this work will be submitted to CERC during the next truing-up process.

NERLDC suggested that the issue may be discussed in the next NeTest meeting for better clarity on the scope of work and other related matters.

Director, NERPC pointed that such works may be done through Additional Capitalization as per CERC Tariff regulation-2024 since useful life of the system is already exhausted.

In response representative of PowerGrid submitted that cost would be recovered as Additional Capitalization through CERC only. They have placed the issue in the forum for approval before taking up the work and the same is also placed in 224<sup>th</sup> OCC wherein principal approval was agreed.

After due deliberation forum agreed in principle for the above SAS upgradation work under Additional Capitalization with an estimated cost of Rs. 1.5 Crore (approx.) and referred to TCC/NERPC.

***Placed for approval of TCC***

**3.3. URTDSM Phase-I : Cyber Security issues in URTDSM system – PowerGrid**

1. The URTDSM Phase 1 System was made operational from year 2018-19 onwards. The Contract was awarded in 2014. The AMC of URTDSM phase 1 system is available till Jan 2027. The various systems (IT hardware/Software) were procured in 2015-16 and are about 10 years old and most items have reached technical obsolescence.
2. The URTDSM phase-2 project for replacement of these items is still under DPR stage and will take at least 3 years for implementation. Hence the URTDSM phase 1 system are to be kept functional and secure till Jan 2027 and beyond.



3. Also, CEA cyber security regulations require certain changes in the URTDSM phase 1 system architecture, which necessitates addition of few cyber security components. Also, the Auditors of cyber security have raised NCs (Non-Conformity) for this deviation. POWERGRID proposed three measures (Virtual patching, PMU Data streaming through firewall and log storage) to address cyber security concerns. Two of these solutions were accepted in the NeTeST meeting.

**I) Virtual patching for Servers with Windows 2012 R2 Operating system**

- a. Support from Microsoft for Windows 2012 R2 Operating system has expired on 10th October-2023:
- b. M/s GE informed that Win OS (Servers) upgrade is not feasible under current circumstances owing to following reasons:
  - i. Some of the current applications will not be supported on new operating systems as GE WAMS application Roadmap is heading for different application suite i.e. GridOS WAMS
  - ii. Associated applications of 3<sup>rd</sup> party tools will also not be supported on new operating systems.
- c. In view of above, a system upgrade on existing infra is not feasible in current set-up.

POWERGRID explored the following alternative of Virtual patching to ensure the security of existing Windows Server until Phase-II systems which are in place:

- URTDSM WAMS System is being maintained air-gapped with perimeter protection at Firewall level and available updated Anti-virus patches for system robustness and security.
- Additionally, at HIPS level, option for Virtual patching shall take care of the obsolete Windows Server 2012 OS. Virtual patching protects operating



systems and third-party applications from known vulnerabilities and protects legacy systems and end-of-life software that no longer receive updates, ensuring ongoing security and helping organizations meet compliance requirements.

- POWERGRID discussed with the OEM M/s TrendMicro and obtained budgetary quote. The OEM quoted approximately Rs. 1.50 Crores for all 500+ Servers installed in URTDSM System pan India (approximately Rs 30,000/- per Sever for 3 years license support)
- The solution is under PoC in one of the RLDCs. The cost at each control centre is **Rs.4.05 lakhs excluding GST.**

*Members to deliberate and concur the proposed solution of virtual patching to address the obsolete Windows Server 2012 OS issue.*

*Upon concurrence from the RPC, licenses from the OEM shall be procured on Cost sharing basis.*

## **II) PMU Data Streaming through Firewall:**

- a. There is an observation in Cyber Security Audit to stream the data from PMU to PDC through a Firewall.
- b. Also, CEA Cyber Security guidelines 2021 stipulates creating of electronic security perimeter (ESP). This necessitates the requirement of streaming PMU data through firewalls at all control centres.
- c. The same requirement was not envisaged in the URTDSM Phase-1 system design. Hence, M/s GE was asked to submit the techno-commercial offer for the segregation.
- d. Based on the discussions in SCADA Work Group meeting in some RPCs, it was proposed to use the existing internal firewalls only (by configuring separate VLAN) for PMU data streaming instead of purchasing a new firewall. This solution also needs procurement of an additional 2 LAN switches.



- e. Accordingly, based on the quotation given by GE, the cost of the solution for each Control centre is **Rs. 15.35 Lakhs excluding GST** (Services for configuring internal firewall and supply of 2 new LAN switches).

*Members may deliberate and concur the above proposal to address the requirement of PMU data streaming through firewall.*

**Summary of POWEGRID Agenda for URTDSM Phase-I AMC Issues:**

| <b>S No</b> | <b>Description of the Issue being faced in URTDSM Phase-I AMC</b>                                                                                                                                                                                                                              | <b>Solution Proposed by POWERGRID</b>                                                                                                                                                                                                                                                                                | <b>Tentative Cost in Rs. Lakhs excluding GST</b> | <b>Remarks</b>                  |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------------------------|
| 1.          | <b>Windows 2012 R2 OS Obsolescence:</b><br><br>Support from Microsoft for Windows2012 R2 Operating system has expired for different Server applications in the URTDSM system. Microsoft declared End-of-Support for the Win2012 R2 OS and system upgrade on existing IT infra is not feasible. | To procure Virtual patching solution (Software License) from the present anti-virus OEM M/s TrendMicro (the solution protects the system from known vulnerable systems and legacy systems from any remote code execution attacks.<br><br>POWERGRID budgetary of Rs. 1.5 Crores (approx.) for 3-year license support. | <b>4.05 per LDC</b>                              | Budgetary quote from TrendMicro |



|    |                                                                                                                                                                                                                                                           |                                                                                                                                                                                    |                            |                             |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------|
| 2. | <b>PMU Data Streaming through Internal Firewall:</b><br><br>As per feedback from Cyber Security audits conducted on URTDSM system and also as per CEA Cyber Security Guidelines 2021, PMU data is to be streamed through firewall at all control centers. | To stream PMU data through the internal firewall which needs following to be procured:<br><br>a) 2 LAN switches (Hardware)<br><br>b) Configuration of Internal Firewall (Services) | <b>15.35 Lakhs per LDC</b> | Budgetary quote from M/s GE |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------|

TOTAL tentative Cost for NER: **Rs. 46.9 Lakhs (excluding GST)** for NERLDC and 3 SLDCs of NER (Tripura, Meghalaya & Assam)

Note: Tripura & Meghalaya are excluded for PMU Data streaming through Internal Firewall (Point No.2 above) as no state sector PMUs are reporting to these SLDCs currently.

Members may deliberate and concur the above two proposals for immediate augmentation of the system considering the Cyber Security issues.

Upon concurrence of RPC for cost sharing of this solution, process for award of this work shall be initiated by POWERGRID.

**Status of approval in other RPCs:**



POWERGRID took up the proposals for addressing the Cyber Security requirements for the existing URTDSM Phase-I system on Cost sharing basis in following RPCs/OCCs:

- a. 52<sup>nd</sup> ERPC meeting held on 05.09.2024 – **Approved by Board (all 3 points)**
- b. 51<sup>st</sup> WRPC meeting held on 11.01.2025 – **Approved by Board. (all 3 points)**
- c. 54<sup>th</sup> SRPC Communication meeting of on 21.01.2025, further this was deliberated in the 54<sup>th</sup> SRPC meeting on 21.03.2025 – **SRPC Board Approved ( 2 points only)** Point (I) and (II).
- d. Discussed in 78<sup>th</sup> NRPC on 16-17Mar'25, further discussed in 27<sup>th</sup> NR TeST Meeting on 21.04.2025 and was agreed by all members. Now being put up in 79<sup>th</sup> NRPC Board meeting scheduled on 30.05.2025.
- e. 28<sup>th</sup> NERPC & TCC on 20.02.2025, further this was deliberated in 31<sup>st</sup> NE TeST meeting on 04.04.2025 & agreed for point (1) and (2). Being put up for approval in the 29<sup>th</sup> NERPC Board meeting.

***Placed for approval of TCC***

**3.4. Re-conductoring of 132 kV Transmission line from ACSR Panther to HTLS Panther conductor equivalent (800 Amps) of the following lines.**

- (1) Nagarjan DoPN (Dimapur)-PGCIL (Dimapur) Ckt.-I & II**
- (2) PGCIL (Dimapur)- Kohima**
- (3) Kohima-Karong (Nagaland Portion)**
- and Replacement of Earth Wire with OPGW of**
- (4) Nagarjan DoPN (Dimapur)- Kohima**
- (5) Kohima-Karong (Nagaland Portion).**

Nagaland state load monitoring and control is divided into three Load Centres (LC's) vis. Kohima Load Centre, Dimapur Load Centre and Mokokchung Load



Centre. The present peak demand is about 211 MW. However, due to various constraints, the maximum demand met is restricted to 180 MW.

The 132kV S/C transmission line Nagarjan DoPN (Dimapur) –PGCIL (Dimapur) Ckt- I & II, 132kV S/C transmission line PGCIL (Dimapur)– Kohima and 132kV S/C transmission line Kohima–Karong (Nagaland Portion) were constructed during the 1980s. These 132kV transmission lines serves as major lifeline to the state commercial hub i.e. Dimapur Load Centre and the state capital i.e. Kohima Load Centre. The 132kV Kohima – Karong transmission line is the only 132kV interstate line connecting Nagaland and Manipur state. The line serves as an important alternative to both the state during exigency.

The 132/66kV, 200MVA & 132/33 kV, 100 MVA at Nagarjan sub-station is fed from 220/132kV PGCIL (Dimapur) sub-station via two 132kV S/C transmission line (Ckt. I & II) of 0.75 km and 0.55 km respectively. Nagarjan sub-station caters power supply to Dimapur Load Centre feeding four districts viz. Dimapur, Niuland, Peren & Chumoukedima. The peak load on both the incomer of Ckt-I and Ckt-II of Nagarjan sub-station recorded 135 MW during 2024-25, however, due to aging of the ACSR Panther conductors, power flow in each line is limited to 70 MW. Therefore, in the event of outage of one circuit, N-1 contingency criteria is not satisfied, and Dimapur Load Centre is constrained to impose load shedding.

The 132kV S/C transmission line from PGCIL (Dimapur) sub-station to Kohima sub-station is one of the oldest transmission line in Nagaland, and has been in service for about 45 years. Kohima Load Centre caters power supply to the districts of Kohima, Wokha, Phek, Kiphire and Tseminyu including the State Capital Kohima. Presently the installed capacity under Kohima Load Centre is about 95 MW. However, the projected future load at Kohima Bus bar is estimated to be about 190 MW. Due to aging of the transmission line, frequent failures of conductors, jumpers and insulators have led to grid disturbances. There have been many incidents in the past where fault on the transmission line has led to blackout of the entire capital



and its adjoining areas. This particular issue has been viewed seriously by the North Eastern Regional Power Committee (NERPC) & North Eastern Regional Load Despatch Centre (NERLDC) and subsequently up-gradation of the transmission line has been discussed multiple times at Consultation Meeting for Evolving Transmission Schemes in the Northeast Region (CMETS-NER).

The 132kV Kohima – Karong (Manipur) line connecting Nagaland and Manipur is a key interstate line ensuring stability to Kohima Load Centre during normal grid condition. Manipur side of the transmission line has been upgraded but Nagaland side is yet to be upgraded. It may be noted that, due to the present system constraint, power flow on this transmission line is restricted to 40MW. Requirement for enhancement of this transmission line capacity has been a long-felt need.

The proposal consists of the following scope of works:

- i) Re-conductoring of 132 kV Transmission line from ACSR Panther to HTLS Panther conductor equivalent (800 Amps) of Nagarjan DoPN (Dimapur)-PGCIL (Dimapur) Ckt.-I & II.
- ii) Re-conductoring of 132 kV Transmission line from ACSR Panther to HTLS Panther conductor equivalent (800 Amps) of PGCIL (Dimapur)-Kohima.
- iii) Re-conductoring of 132 kV Transmission line from ACSR Panther to HTLS Panther conductor equivalent (800 Amps) of Kohima-Karong (Nagaland Portion).
- iv) Replacement of the earth wire with OPGW of Nagarjan DoPN (Dimapur)-Kohima and Kohima-Karong (Nagaland Portion).

The project has been conceptualized and proposed with the following goals and objectives:



- i) The proposed re-conductoring of 132 kV Transmission lines with HTLS Panther conductor shall enhance reliability of power supply to Dimapur, Kohima and its adjoining areas.
- ii) Up-gradation of the transmission lines will enhance load carrying capacity for the projected load growth and evacuation of power from the upcoming generation sources.
- iii) Replacement of the existing earth wire with OPGW will enable fast and reliable communication path for real time data reporting to the SLDC and NERLDC, while retaining its function as a normal ground/earth wire.

In view of the above, with the aim to enhance transmission efficiency, reliability, load carrying capacity and enable fast and reliable communication of the said transmission lines, the proposal for *“Re-conductoring of 132 kV Transmission line from ACSR Panther to HTLS Panther conductor equivalent (800 Amps) of (1) Nagarjan DoPN (Dimapur)-PGCIL (Dimapur) Ckt.-I & II (2) PGCIL (Dimapur)- Kohima (3) Kohima-Karong (Nagaland Portion) and Replacement of Earth Wire with OPGW of (1) Nagarjan DoPN (Dimapur)- Kohima (2) Kohima-Karong (Nagaland Portion)”* at an estimated cost of **Rs. 7301.67 Lakh** is hereby submitted for approval and consideration of funding under PSDF.

***Placed for approval of TCC***

### **3.5. ISTS transmission scheme for NERGS-III Sinag Basin - CTUIL**

NERGS-II Basin scheme has been evolved to provide 426MW ISTS connectivity to NEEPCO for its Heo (3x80MW) and Tato-I (2x62) Hydro Electric projects in Arunachal Pradesh.

The said scheme for ISTS connectivity was deliberated in the 42<sup>nd</sup> CMETS-NER held on 29-04.205 and 44<sup>th</sup> CMETS-NER held on 26-06-2025 and was agreed for implementation under ISTS. As per MoP's office Order no. 15/3/2018-Trans-Pt(5) dated 28-10-2021 regarding “Re-constitution of the



National Committee on Transmission (NCT) -reg.”, for schemes costing more than rs. 500cr. CTU has to submit the scheme to NCT for their consideration after consulting the RPC.

In view of the above, the scheme may be deliberated upon by the forum and any observation/views may be communicated to CTU for further processing of the scheme. Details of the scheme as per requisite format of NCT are provided below.

| <b>Sl. No.</b> | <b>Items</b>               | <b>Details</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1.</b>      | <b>Name of scheme</b>      | NERGS-III Siang Basin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>2.</b>      | <b>Scope of the scheme</b> | <p>Brief scope of works is given below. Detailed scope of works is enclosed at <b>Appendix-A.</b></p> <ul style="list-style-type: none"><li>i. Establishment of new 2x500MVA, 400/220kV GIS Pooling station at Kaying in Arunachal Pradesh</li><li>ii. Establishment of new 400kV GIS Switching station at Niglok in Arunachal Pradesh (with a provision for 400/220kV level and 6000MW LCC HVDC station)</li><li>iii. Extension at Gogamukh 400/220/132kV (ISTS) substation</li><li>iv. Kaying PS – Niglok PS 400kV D/c (Quad) line</li><li>v. Niglok PS – Gogamukh 400kV D/c (Quad) line</li></ul> <p>Detailed scope of works is enclosed at <b>Appendix-A.</b></p> |



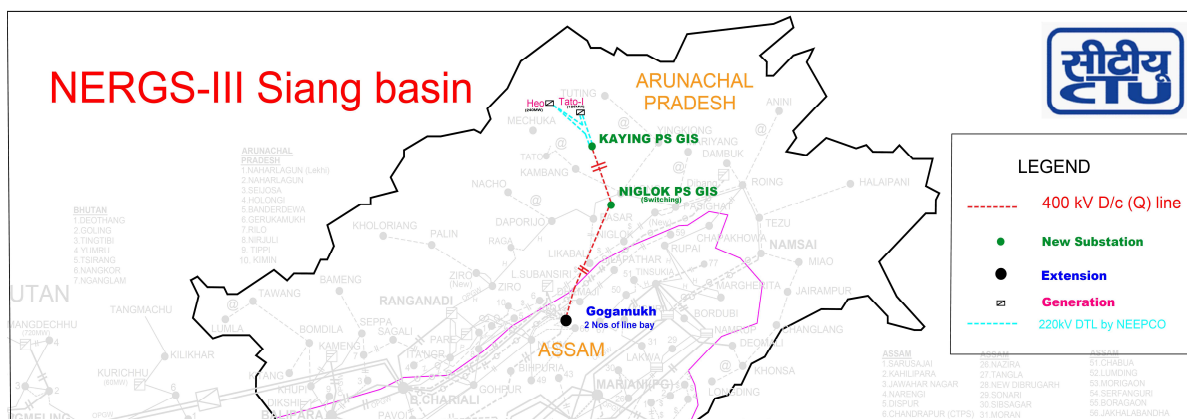
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## NORTH EASTERN REGIONAL POWER COMMITTEE

| Sl. No. | Items                                                        | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.      | <b>Depiction of the scheme on Transmission Grid Map</b>      | Refer <b>Exhibit-1</b> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4.      | <b>Upstream/downstream system associated with the scheme</b> | Heo (3x80 MW) and Tato-I (3x62 MW) hydro generations of NEEPCO will be pooled at Kaying PS through 220kV D/c DTL to be implemented by NEEPCO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.      | <b>Objective / Justification</b>                             | <p>North Eastern Electric Power Corporation Ltd (NEEPCO) had applied for ISTS Connectivity of 426MW for its Heo Hydro Electric Project (3x80 MW) and Tato-I Hydro Electric Project (3x62 MW) in Shi-Yomi, Arunachal Pradesh. These two power houses are planned in a master slave relationship, the Tato-I HEP &amp; Heo HEP may be considered a single power house with six generating units for the purpose of connectivity. Tato-I shall be the lead generator.</p> <p>Based on multiple meetings among CEA, CTU, hydro project developers and NER states, a draft of the Master Plan Report for power evacuation from potential HEPs in Brahmaputra basin has been prepared by CEA. The said draft Master Plan includes the said HEPs as well. Considering the expected potential of about 5604MW including Heo and Tato-I HEPs in the Siang sub-basin by 2035, evacuation system has been planned.</p> <p>Based on the evacuation system mentioned in the draft Master Plan, the said 426MW</p> |



| <b>Sl. No.</b> | <b>Items</b>                                                                            | <b>Details</b>                                                                                                                                                                                                                                                                                                                                                        |
|----------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                |                                                                                         | connectivity application was agreed to be granted ISTS Connectivity in the 42 <sup>nd</sup> CMETS-NER held on 29-04-2025 and 44 <sup>th</sup> CMETS-NER held on 26-06-2025 with NERGS-III Siang Basin to be implemented under ISTS as common augmentation for subject and potential HEPs in Siang basin.<br>Detailed scope of works is enclosed at <b>Appendix-A.</b> |
| <b>6.</b>      | <b>Estimated Cost</b>                                                                   | About ₹ 1830 Cr.                                                                                                                                                                                                                                                                                                                                                      |
| <b>7.</b>      | <b>Impact on the total Annual Transmission Charges in % along with the existing ATC</b> | A. ATC (considering levelized tariff @15% of estimated cost): ₹274.5 Cr.<br>B. Present ATC: ₹45581.92 Cr.*<br>C. A/B: 0.602%                                                                                                                                                                                                                                          |
| <b>8.</b>      | <b>Need of phasing, if any</b>                                                          | Nil                                                                                                                                                                                                                                                                                                                                                                   |
| <b>9.</b>      | <b>Implementation timeframe</b>                                                         | 28-02-2029                                                                                                                                                                                                                                                                                                                                                            |
| <b>10.</b>     | <b>Inclusion of any wild life/ protected area along the transmission line route</b>     | No major NP, WLS, other protected areas observed. However, for details of other forest/protected areas survey is required to be done.                                                                                                                                                                                                                                 |
| <b>11.</b>     | <b>Deliberations with RPC along with their comments</b>                                 | <b>NERPC may add their deliberations here.</b>                                                                                                                                                                                                                                                                                                                        |
| <b>12.</b>     | <b>System Study for evolution of the proposal</b>                                       | Refer <b>Exhibit-2.</b>                                                                                                                                                                                                                                                                                                                                               |



| Sl. No. | Scope of works: NERGS-III Siang basin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Capacity (MVA) / Line length (km)/ Nos.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.      | <p>Establishment of new 2x500MVA, 400/220kV GIS Pooling station at Kaying in Arunachal Pradesh</p> <p><b>Additional space for future expansion:</b></p> <ul style="list-style-type: none"> <li>- 400/220kV, 2x500MVA ICTs along with associated ICT bays at both voltage levels</li> <li>- 420kV, 1x80MVAR bus reactor along with associated bay</li> <li>- 10 nos. of 400kV line bays (along with space for switchable line reactor) for future lines</li> <li>- 8 nos. of 220kV line bays for future lines</li> <li>- 400kV bus sectionaliser bay: 1 set</li> </ul> | <p>420kV, 80MVAR bus reactor: 2 nos.</p> <p>400kV GIS Bus reactor bays: 2 nos.</p> <p>400/220kV, 500MVA ICT: 2 nos</p> <p>400kV GIS ICT bays: 2 nos.</p> <p>220kV GIS ICT bays: 2 nos.</p> <p>400kV GIS line bays: 2 nos. [for Kaying PS – Niglok PS 400kV D/c (Quad) line]</p> <p>220kV GIS line bays: 2 nos. [for termination of DTL of 1840A or more per circuit]</p> <p>420kV, 50MVAR switchable line reactor with GIS bays: 2 nos. [one in each circuit of Kaying PS – Niglok PS 400kV D/c (Quad) line]</p> |



|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                         |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <ul style="list-style-type: none"><li>- 220kV bus sectionaliser bay :1 set</li><li>- 220kV bus coupler bay: 2 no.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                         |
| 2. | <p>Establishment of new 400kV GIS Switching station at Niglok in Arunachal Pradesh (with a provision for 400/220kV level and 6000MW LCC HVDC station)</p> <p><b>Additional space for future expansion:</b></p> <ul style="list-style-type: none"><li>- Establishment of <math>\pm 800</math> kV, 6000 MW, Niglok (HVDC) [LCC] terminal station (4x1500 MW) along with associated interconnections with 400 kV HVAC Switchyard &amp; all associated equipment (incl. filters)/bus extension, etc.</li><li>- 400/220kV, 4x500MVA ICTs along with associated ICT bays at both voltage levels</li><li>- 420kV, 1x80MVAR bus reactor along with associated bays</li><li>- 12 nos. of 400kV line bays (along with space for switchable line reactor) for future lines</li><li>- 8 nos. of 220kV line bays for future lines</li></ul> | <p>420kV, 80MVAR bus reactor: 2 nos.</p> <p>400kV GIS Bus reactor bays: 2 nos.</p> <p>400kV GIS line bays: 4 nos. [2 for Kaying PS – Niglok PS 400kV D/c (Quad) line &amp; 2 for Niglok PS – Gogamukh 400kV D/c (Quad) line]</p> <p>420kV, 50MVAR switchable line reactor with GIS bays: 2 nos. [one in each circuit of Niglok PS – Gogamukh 400kV D/c (Quad) line]</p> |



|    |                                                                                                                                                                          |                                                                             |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
|    | <ul style="list-style-type: none"><li>- 400kV bus sectionaliser bay: 1 set</li><li>- 220kV bus sectionaliser bay :1 set</li><li>- 220kV bus coupler bay: 2 no.</li></ul> |                                                                             |
| 3. | Extension at Gogamukh 400/220/132kV (ISTS) substation                                                                                                                    | 400kV line bays: 2 nos. [for Niglok PS – Gogamukh PS 400kV D/c (Quad) line] |
| 4. | Kaying PS – Niglok PS 400kV D/c (Quad) line                                                                                                                              | 100km                                                                       |
| 5. | Niglok PS – Gogamukh 400kV D/c (Quad) line                                                                                                                               | 125km                                                                       |

**Note:**

1. *Gogamukh 400/220/132kV (ISTS) S/s is under implementation under North Eastern Region Expansion Scheme-XVI (NERES-XVI) scheme through TBCB route by M/s NERES XVI Power Transmission Limited (wholly owned subsidiary of Techno Electric and Engineering Company Limited). SCoD as per TSA is 30-11-2026.*

**Completion Schedule:** 28-02-2029

**Dedicated Transmission Line (DTL):** under the scope of applicant

- (i) *Tato-I – Kaying PS 220kV D/c line (Ampacity: 1840 A or more per ckt) along with associated bays at 220kV level at Tato-I generation switchyard.*
- (ii) *LILO of one circuit of Tato-I – Kaying PS 220kV D/c line at Heo switchyard (Ampacity: 1840 A or more per ckt) along with associated bays at Heo generation switchyard.*



- (iii) *Space provision for 245kV, 1x50MVA bus reactor along with associated bay each at Heo and Tato-I generation switchyards.*

***TCC may deliberate***

**3.6. CONSTRUCTION OF NEW 2X50 MVA, 132/33kV S/S AT AWANG POTSANGBAM WITH ASSOCIATED 132 Kv LILO ON YUREMBAM-YAINGANGPOKPI 132 Kv LINE Andii. CONSTRUCTION OF NEW 2X25 MVA, 132/33 Kv S/S AT NAMREI, UKHRUL DISTRICT ALONG WITH THE ASSOCIATED 132 Kv DC LINE FROM 132/33kV HUNDUNG SUBSTATION - MSPCL**

In the 26<sup>th</sup> TCC and NERPC meeting held on the 4<sup>th</sup> and 5<sup>th</sup> of July, 2024 respectively at Sonapur, Guwahati, the forum opined that the proposals of MSPCL for **i) Construction of 2x50 MVA, 132/33kV S/s at Awang Potsangbam with associated 132 kV LI-LO on Yurembam- Yaingangpokpi 132 kV line** and **ii) Construction of 2x25 MVA, 132/33 kV S/S at Namrei, Ukhrul District along with associated 132kV DC line from Hundung Substation** are to be further discussed in Sub-Committee meeting(s) for detailed study/deliberation/clarification and is therefore referred to the Sub Committee(s) of NERPC.

Meanwhile, the proposals were included in the “Intra State Transmission Resource Adequacy Plan for Manipur by the year 2034-35” of CEA and it has been recommended to complete the works for construction of 132/33kV substation at Awang Potsangbam and construction of 132/33kV substation at Namrei along with the associated lines by 2028-29.

Relevant portion of the “**Report on the Intra State Transmission Resource Adequacy Plan for Manipur by the year 2034-35**” of April 2025 is also enclosed for reference

Considering the above facts and circumstances, the Committee may kindly approve the -



- i) Construction of new 2x50 MVA, 132/33kv S/S at Awang Potsangbam with associated 132 kV LILo on Yurembam- Yaingangpokpi (II) 132 kv line and
- ii) Construction of new 2x25 MVA, 132/33 kV S/S at Namrei, Ukhrul district along with the associated 132 kV DC line from 132/33kV Hundung Substation

The matter was deliberated in 227<sup>th</sup> OCCM wherein the forum in principle agreed the proposal as approved in the CEA report and suggested that for any modification of the approved schemes, a proposal has to be sent to the NERPC and NERLDC, so as it can be deliberated and intimated to CEA.

***Placed for approval of the TCC***

**3.7. CONSTRUCTION OF 2X12.5 MVA 132/33 kV SUBSTATION AT KAMJONG ALONG WITH ASSOCIATED 132KV DC LINE FROM 132/33kV HUNDUNG SUBSTATION - MSPCL**

In the 27<sup>th</sup> TCC and NERPC meetings held at Guwahati on the 7<sup>th</sup> and 8<sup>th</sup> of November, 2024, the forum had deliberated that the proposal of MSPCL for “Construction of 2x12.5 MVA 132/33kV substation at Kamjong along with associated 132kV DC line from 132/33kV Hundung Substation” is to be further discussed in Sub-Committee meeting(s) for detailed study/deliberation/clarification and is therefore referred to the Sub-Committee(s) of NERPC.

Meanwhile, the proposal was included in the “Intra State Transmission Resource Adequacy Plan for Manipur by the year 2034-35” of CEA and it has been recommended that the work be completed by 2032-33.

Relevant portion of the “Report on the Intra State Transmission Resource Adequacy Plan for Manipur by the year 2034-35” of April 2025 is also enclosed for reference



Considering the above facts and circumstances, the Committee may kindly approve the construction of 132/33kV substation at Kamjong along with associated 132kV DC line from 132/33kV Hundung Substation.

The matter was deliberated in 227<sup>th</sup> OCCM wherein the forum in principle agreed the proposal of 132/33kV substation at Kamjong along with associated 132kV DC line from 132/33kV Hundung Substation. as the same was already approved in the CEA report.

***Placed for approval of the TCC***

### **3.8. RECONDUCTORING AND STRENGTHENING OF 132kV S/C TRANSMISSION LINE FROM 132/33kV JIRIBAM SUBSTATION TO 132/33 kV RENGPAK SUBSTATION - MSPCL**

The 132/33kV Substation at Rengpak was constructed with 132kV LI-LO transmission line on the then existing 132kV Jiribam-Leimatak line. At present, power to the substation is fed from the Leimatak side which is also a generating station under NHPC. The extremely challenging terrain, frequent landslides and ever growing vegetations (especially bamboos) has left the other alternate source of supply i.e. 132kV Jiribam-Rengpak transmission line into disuse. The area being susceptible to the recent public unrest in Manipur, timely maintenance of the said line had also been impossible.

The issue was discussed in the 28<sup>th</sup> TCC and NERPC meeting with MSPCL proposing to re-string the line. It was also discussed in the same meeting that the long outage of the 132kV Jiribam-Rengpak line is also causing the overloading of 132kv Loktak-Ningthoukhong line. The forum also stressed upon the early restoration of 132 kV Rengpak - Jiribam line.

However, the forum opined that the item for “Re-conductoring and Strengthening of 132kv S/C transmission line from 132/33kV Jiribam substation to 132/33 kV Rengpak substation” is to be further discussed in Sub-Committee meeting(s) for detailed study/deliberation/clarification and is therefore referred to the Sub-Committee(s) of NERPC.



The proposal was included in the “Intra State Transmission Resource Adequacy Plan for Manipur by the year 2034-35” of CEA.

Relevant portion of the “Report on the Intra State Transmission Resource Adequacy Plan for Manipur by the year 2034-35” of April 2025 is also enclosed for reference.

Considering the above facts and circumstances, the Committee may kindly approve the reconductoring and strengthening of 132kV S/C transmission line from 132/33kV Jiribam substation to 132/33kV Rengpang substation.

The matter was deliberated in 227<sup>th</sup> OCCM wherein the forum in principle agreed the proposal as approved in the CEA report. Further it can be referred to ensuing RPC for information.

***Placed for approval of the TCC***

### **3.9. Roster for TCC/NERPC Meeting -NERPC**

As members of NERPC are aware that TCC & NERPC are being hosted by constituents on rotation basis. In this regard 30<sup>th</sup>, 31<sup>st</sup>, 32<sup>nd</sup> and 33<sup>rd</sup> meetings have been proposed as:

| Sr. No. | Meeting          | Hosted by |
|---------|------------------|-----------|
| 1.      | 30 <sup>th</sup> | Mizoram   |
| 2.      | 31 <sup>st</sup> | Tripura   |
| 3.      | 32 <sup>nd</sup> | OTPC      |
| 4.      | 33 <sup>rd</sup> | NVVN      |
| 5.      | 34 <sup>th</sup> |           |

**For kind approval/information.**



#### **4. PART C: COMMERCIAL ISSUES**

##### **4.1. Agenda by OTPC**

##### **(1) Outstanding Dues of OTPC against NER beneficiaries**

The current total outstanding dues of OTPC against the NER beneficiary states (as on 09-07-2025) are as under:

| <b>Sl. No.</b> | <b>Beneficiary</b> | <b>Outstanding Dues (&gt;45 Days)<br/>In Crores</b> |
|----------------|--------------------|-----------------------------------------------------|
| 1              | Arunachal Pradesh  | 0                                                   |
| 2              | Assam              | 0                                                   |
| 3              | Manipur            | 7.94                                                |
| 4              | Meghalaya          | 0                                                   |
| 5              | Mizoram            | 0                                                   |
| 6              | Nagaland           | 0                                                   |
| 7              | Tripura            | 29.80                                               |
|                | <b>Total</b>       | <b>37.74</b>                                        |

The total outstanding dues beyond 45 days are Rs **37.74 Crores**. Constituents are requested to clear the outstanding dues over 45 days, at the earliest.

##### ***Manipur & Tripura may update***

##### **(2) Payment Security Mechanism – LC**

As per terms of PPA, Mizoram and Manipur have to provide there LC amount before dated May 2025 but they have not provided the LC as per details given below:

| <b>State</b> | <b>LC Required (in Crores)</b> | <b>LC Provided (in Crores)</b> |
|--------------|--------------------------------|--------------------------------|
| Mizoram      | 24.03                          | 0                              |
| Manipur      | 29.05                          | 0                              |



Our CAG auditors have pointed out the provided LCs. If we updated the expired LCs status on Praapti portal than power supply to these states will be curtailed by RLDC which will further worsen their situation. Mizoram and Manipur are therefore requested to provide the LC amount at the earliest.

***Mizoram and Manipur may update.***

### **4.2. Agenda by NERLDC**

The outstanding charges of **Manipur against DSM and Reactive charges** shown in the following table. The amount receivable from the pool account against DSM charges has been adjusted against Legacy DSM Outstanding as per request of Manipur officials.

|                          |                      |
|--------------------------|----------------------|
| DSM Outstanding          |                      |
| FY 24-25                 | ₹ 6,26,19,329        |
| FY 25-26                 | ₹ 1,72,36,620        |
| <b>Total Outstanding</b> | <b>₹ 7,98,55,949</b> |

|                          |                    |
|--------------------------|--------------------|
| Reactive Outstanding     |                    |
| FY 24-25                 | ₹ 10,30,497        |
| FY 25-26                 | ₹ 2,67,574         |
| <b>Total Outstanding</b> | <b>₹ 12,98,071</b> |

***Manipur may update***



#### **4.3. Quarterly expenditure of Board Fund and Establishment Fund:**

**A.** NERPC Board Fund Quarterly expenditure for FY 2024-25 and First Quarter of FY 2025-26:

**B.** NERPC Establishment Fund Quarterly expenditure for FY 2023-24, FY 2024-25 and First Quarter of FY 2025-26:

The quarterly expenditure details of NERPC Board Fund and Establishment Fund for is attached at **Annexure 4.3**

#### **4.4. NERPC Board Fund Contribution status for FY 2025-26 reg.**

##### **A. Regular Members:**

| <b>F.Y 2025-26</b> |                       |                          |    |                     |                          |
|--------------------|-----------------------|--------------------------|----|---------------------|--------------------------|
|                    | <b>Constituents</b>   | <b>Status of Payment</b> |    | <b>Constituents</b> | <b>Status of Payment</b> |
| 1                  | Ar. Pradesh           | Payment Received         | 8  | <b>NTPC</b>         | <b>DUE</b>               |
| 2                  | <b>Assam / APDCL</b>  | <b>DUE</b>               | 9  | <b>NHPC</b>         | <b>DUE</b>               |
| 3                  | <b>Manipur/MSPDCL</b> | <b>DUE</b>               | 10 | <b>PTC</b>          | <b>DUE</b>               |
| 4                  | Meghalaya/MeECL       | Payment Received         | 11 | NVVN                | Payment Received         |
| 5                  | <b>Mizoram</b>        | <b>DUE</b>               | 12 | OTPC                | Payment Received         |
| 6                  | Nagaland              | Payment Received         | 13 | NEEPCO              | Payment Received         |
| 7                  | Tripura/TSECL         | Payment Received         | 14 | PGCIL               | Payment Received         |
|                    |                       |                          | 15 | MUML                | Payment Received         |
|                    |                       |                          | 16 | NETC                | Payment Received         |

##### **B. Non-Member Participants:**

| <b>Constituents</b> | <b>Status of Payment</b> |
|---------------------|--------------------------|
| KMTL                | DUE                      |
| NER-II TL(Indigrid) | Payment Received         |



***Constituents may update the status of payment***

**4.5. The status of payment of Establishment Fund for FY 2025-26**

**A. Regular Members:**

| <b>F.Y 2025-26</b> |                     |                          |    |                     |                          |
|--------------------|---------------------|--------------------------|----|---------------------|--------------------------|
|                    | <b>Constituents</b> | <b>Status of Payment</b> |    | <b>Constituents</b> | <b>Status of Payment</b> |
| 1                  | Ar. Pradesh         | Payment Received         | 12 | <b>NTPC</b>         | <b>DUE</b>               |
| 2                  | <b>AEGCL</b>        | <b>DUE</b>               | 13 | <b>NHPC</b>         | <b>DUE</b>               |
| 3                  | <b>APDCL</b>        | <b>DUE</b>               | 14 | PTC                 | Payment Received         |
| 4                  | <b>APGCL</b>        | <b>DUE</b>               | 15 | <b>NVVN</b>         | <b>DUE</b>               |
| 5                  | <b>MePTCL</b>       | <b>DUE</b>               | 16 | <b>OTPC</b>         | <b>DUE</b>               |
| 6                  | MePDCL              | Payment Received         | 17 | NEEPCO              | Payment Received         |
| 7                  | MePGCL              | Payment Received         | 18 | PGCIL               | Payment Received         |
| 8                  | <b>MSPCL</b>        | <b>DUE</b>               | 19 | MUML                | Payment Received         |
| 9                  | <b>MSPDCL</b>       | <b>DUE</b>               | 20 | <b>TPTL</b>         | <b>DUE</b>               |
| 10                 | <b>Mizoram</b>      | <b>DUE</b>               | 21 | <b>TPGCL</b>        | <b>DUE</b>               |
| 11                 | Nagaland            | Payment Received         | 22 | <b>TSECL</b>        | <b>DUE</b>               |
|                    |                     |                          | 23 | <b>NETC</b>         | <b>DUE</b>               |

**B. Non-Member Participants:**

| <b>Constituents</b>  | <b>Status of Payment</b> |
|----------------------|--------------------------|
| KMTL                 | DUE                      |
| NER-II TL( Indigrid) | DUE                      |

***Constituents may update the status of payment***



#### **4.6. Proposed fund for procurement of Furniture and maintenance of Guest House/Transit Camp at Guwahati for NERPC Members-NERPC**

One of the core responsibilities of the NERPC Secretariat is to organize meetings, conduct audits, and coordinate among stakeholders in the North Eastern Region's power sector. Most such meetings are held in Guwahati, requiring travel and stay of NERPC officers and member representatives. At present, accommodation is arranged in hotels, which is not always convenient.

Given Guwahati's strategic location and connectivity, it often serves as a transit point for officials on duty. To address the accommodation challenges, it was proposed during the 27th TCC/NERPC meetings to establish a dedicated transit camp/guest house in Guwahati.

In pursuance of 27th TCC/NERPC meetings, a committee comprising representatives from NERPC, PGCIL, and Assam was formed to identify a suitable location at Guwahati for NERPC transit guest house.

The committee evaluated several properties based on accessibility, amenities, and cost-effectiveness, and finalized a suitable facility at Pareek Complex, Gotanagar, Guwahati – 781011, with 13 rooms (4 VIP and 9 standard). The property will be leased for 36 months starting from 15th July 2025, at a monthly rent of ₹1.2 lakhs.

Additionally, furniture for all 13 rooms shall be provided, including beds, sofas, wardrobes, dining sets, air conditioners, TVs, etc. Estimated furniture cost is as follows.

- |                                                 |                |
|-------------------------------------------------|----------------|
| i) VIP Rooms: ₹ 3 lakhs per room × 4 no         | = ₹ 12 lakhs   |
| ii) Standard Rooms: ₹ 2.3 lakhs per room × 9 no | = ₹ 20.7 lakhs |
| iii) Kitchen items & Miscellaneous:             | = ₹ 2.3 lakhs  |

Total estimated furniture cost of ₹35 lakhs, to be met from the NERPC board Fund.

The monthly recurring expenditure for operation and maintenance is estimated around ₹ 3 lakhs, which will be met from the NERPC Board Fund by increase ₹ 1 Lakh to 3 Lakh contribution from NERPC board members.



This initiative is expected to significantly improve lodging arrangements for NERPC members and officers during official visits to Guwahati.

***TCC may approve***

#### **4.7. Internal and External Painting Works of NERPC Quarters and Remaining Portions of NERPC Secretariat Office**

It is submitted that the internal and external painting works of the NERPC Residential Quarters and the internal painting of the NERPC Secretariat Office have not been undertaken since the year 2014.

Pursuant to the deliberations held during the 24th meetings of the Technical Coordination Committee (TCC) and the Regional Power Committee (RPC), the forum had approved the proposal for undertaking internal and external painting works within the NERPC Complex, utilizing the **NERPC Establishment Fund** for the Financial Year 2023–24 for an amount of Rs. **98,79,150/-**.

In accordance with the above, the internal painting work of the NERPC Secretariat Office building has already been completed in FY 2023–24. However, the internal and external painting works of the NERPC Quarters and certain remaining internal areas of the Secretariat Office are yet to be executed.

A detailed survey has subsequently been conducted to assess the total scope of the remaining work. As per the findings, the cumulative area requiring painting—both internal and external—amounts to **2,95,850 square feet**.

In line with the prescribed procurement procedure, a bid for execution of the said work was floated through the **Government e-Marketplace (GeM) portal**. Based on the finalized bid, the total estimated cost for execution of the proposed painting work is **₹94,94,371/-**.

The above expenditure be booked under the **NERPC Establishment Fund** for the Financial Year **2025–26**.

***Members may please note***



#### **4.8. Expenditure Incurred in Organizing the 16th Meeting of the National Power Committee (NPC)**

In accordance with the roster finalized during the 5th Meeting of the National Power Committee (NPC), and as per the subsequent confirmation in the 15th NPC Meeting, it was agreed that the 16th NPC Meeting would be hosted by the **North Eastern Regional Power Committee (NERPC)**.

Further to this, the estimated expenditure for organizing the said meeting—amounting to **₹25.00 lakh**—was duly deliberated and approved during the **28th TCC (Technical Coordination Committee) and 28th RPC (Regional Power Committee) Meetings**.

The **16th Meeting of the NPC** was successfully convened on **4th July 2025** in **Shillong, Meghalaya**, under the aegis of NERPC. The **total expenditure incurred** in the organization of the meeting amounts to **₹26.20 lakhs**, which includes all associated logistics, hospitality, venue arrangements, and related administrative expenses.

***Members may please note***

#### **4.9. Expenditure Incurred for Inauguration of NERPC office complex.**

The NERPC office and residential complex was set up in the year 2014 and since its inception the entire complex has not been formally inaugurated.

The office complex of NERPC was inaugurated on 4th July 2025 by **Sh A.T. Mondal Hon'ble Minister of Power, Govt. of Meghalaya & Chairman NERPC and Sh. Ghanshyam Prasad** esteemed Chairperson of the Central Electricity Authority (CEA).

The total expenditure incurred in the successful conduct of the inauguration ceremony amounts to ₹2.50 lakhs.

***Members may please note***

#### **4.10. The status of audit of Establishment Fund and Board Fund for FY 2023-24 and 2024-25**

The NERPC Secretariat currently maintains two separate funds:

1. NERPC Secretariat Establishment Fund, and



2. NERPC Board Fund.

In line with the approval granted during the 26th TCC/NERPC meeting, the NERPC Secretariat engaged consultancy services with expertise in finance and accounting to assist in the management of these funds. As a result, an audit was successfully completed by a Chartered Accountant (CA) for the following periods:

- NERPC Secretariat Establishment Fund was audited for the period 1st September 2023 to 31st March 2025 and audit report is enclosed at **Annexure 4.10a**
- NERPC Board Fund was audited for the period 1st October 2022 to 30th September 2024 and for remaining period audit is under process. Subsequently the report would be placed in next TCC meeting for concurrence.

As per Standard Operating Procedure (SOP) for Budget and expenditure of RPCs approved by Chairman CEA and NERPC CBR-2024, Internal Audit for Establishment fund needs to be carried out by the Director level officer. Internal Audit for Establishment fund by Director Level officer was carried out up to September-2025 (Audit Report is enclosed at **Annexure 4.10b**). For the remaining period Internal Audit for Establishment fund is under process and subsequently the report would be placed in next TCC meeting for concurrence.

Further, in 26th TCC/NERPC it was decided that to facilitate an external audit of the above-mentioned funds, the NERPC Secretariat proposes that constituent members to nominate officers to form the audit committee. Subsequently, following persons were nominated as following.

- **NEEPCO:** Shri Navajyoti Gogoi, DGM (Tech), Commercial
- **Meghalaya:** Shri M. Kharkongor, AAO
- **NERTS:** Shri Gaurav Khanna, Deputy Manager, Finance and Account



Subsequently, the audit would be carried out and report would be placed in next TCC meeting for concurrence.

***This is for information.***

## **5. D: ITEMS FOR INFORMATION/UPDATE**

### **5.1 AMC of PDMS System**

28<sup>th</sup> RPC meeting forum approved Rs 60.0 Lakhs for AMC of PDMS system w. e from 2025-26. For the financial year 2024-25, PSDF provided balance fund of Rs. 27.0 Lakhs from PSDF fund and it is to add that an amount of 6,26,000 be booked under OE of NERPC Establishment Fund, for payment of 5<sup>th</sup> year AMC of PDMS system (2024-25) so that total AMC amount of Rs 42 Lakhs paid to vendor PRDC. This shortage in payment of AMC of PDMS system has precipitated because of additional LoA placed for some additional work, in year 2020, during the PDMS system commissioning work.

***Placed for information of TCC forum***

### **5.2 Implementation/Review of Islanding Schemes of NER: NERPC secretariat**

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”.

Two islanding schemes: Upper Assam and Itanagar Islanding schemes have been made operational on 10.05.2025. Other Islanding schemes which are being planned/under implementation in NER are mentioned below, along with the updates from 227<sup>th</sup> OCCM.

#### **A. Guwahati Islanding Scheme**

Being discussed in TESG meetings. Queries raised by TESG being replied

## B. Tripura/Agartala Islanding Scheme

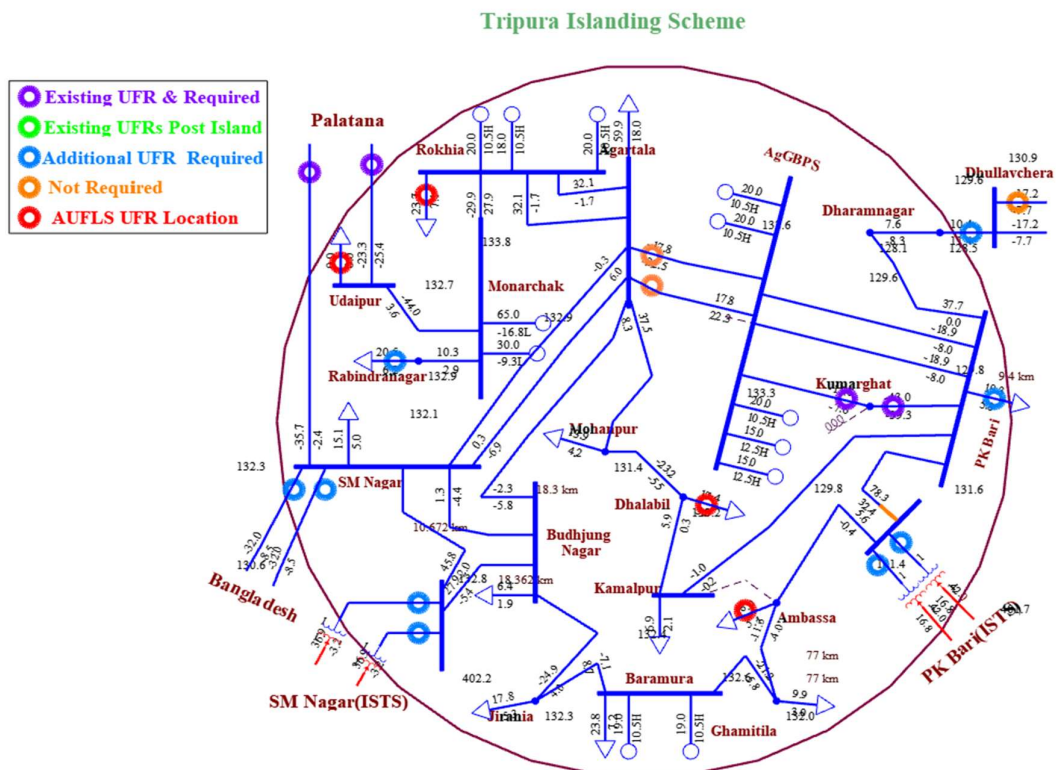
Scheme finalised, under implementation

OTPC- done its part

PowerGrid -will complete shortly

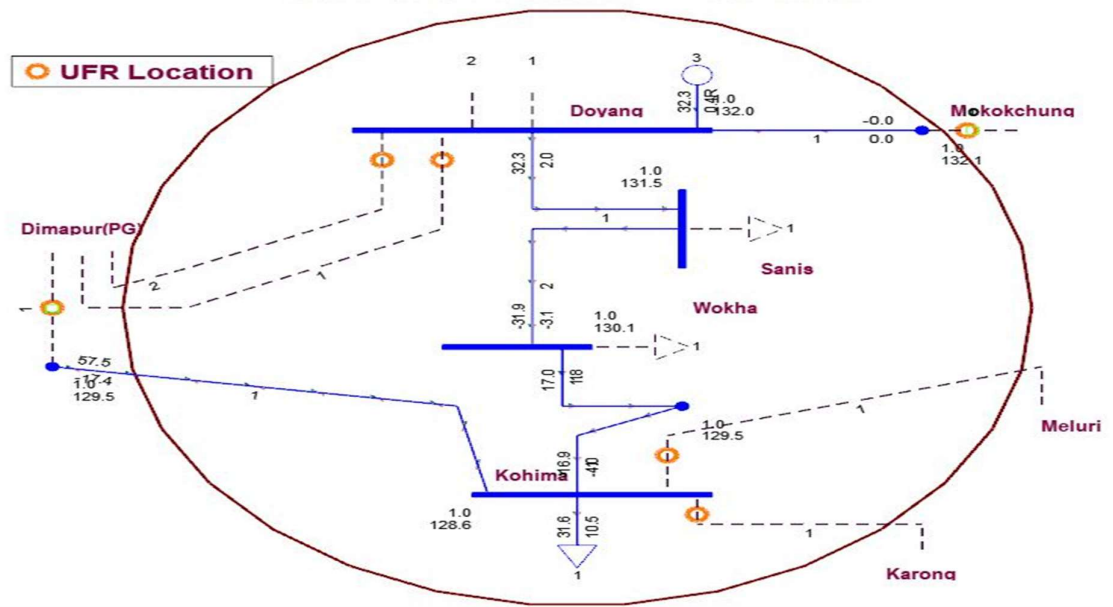
NTL: to be done

Tripura: to buy UFRs. NERLDC suggested to check whether numerical relays are present or not



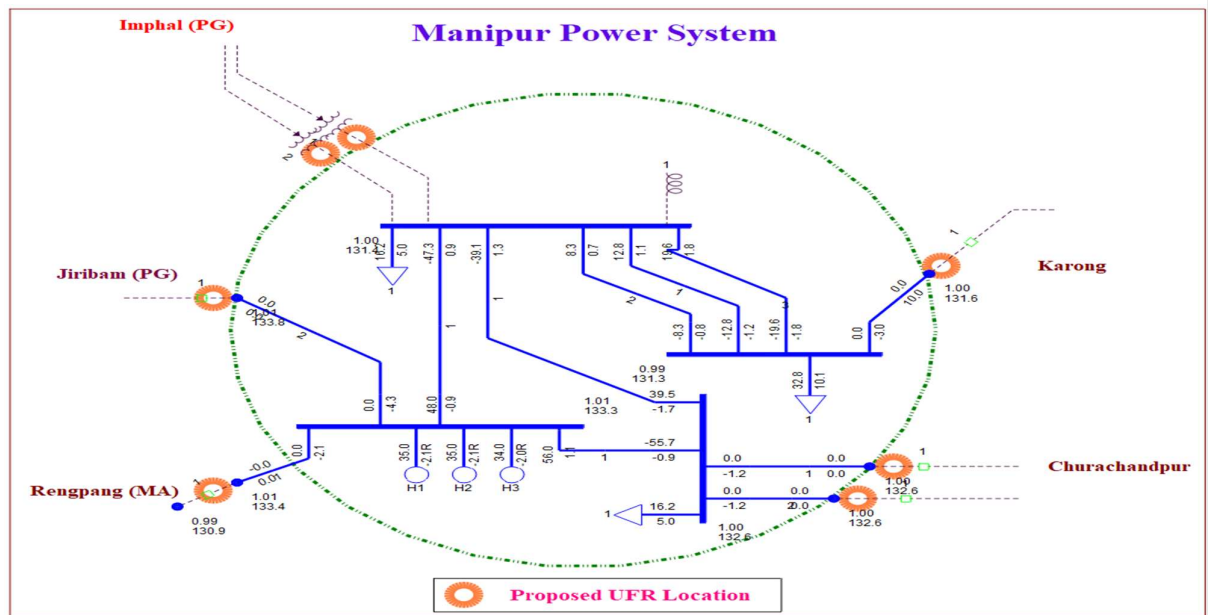
## C. Kohima Islanding scheme

Stability issues observed in the dynamic study due to small size of the generating unit involved. Further study to be done



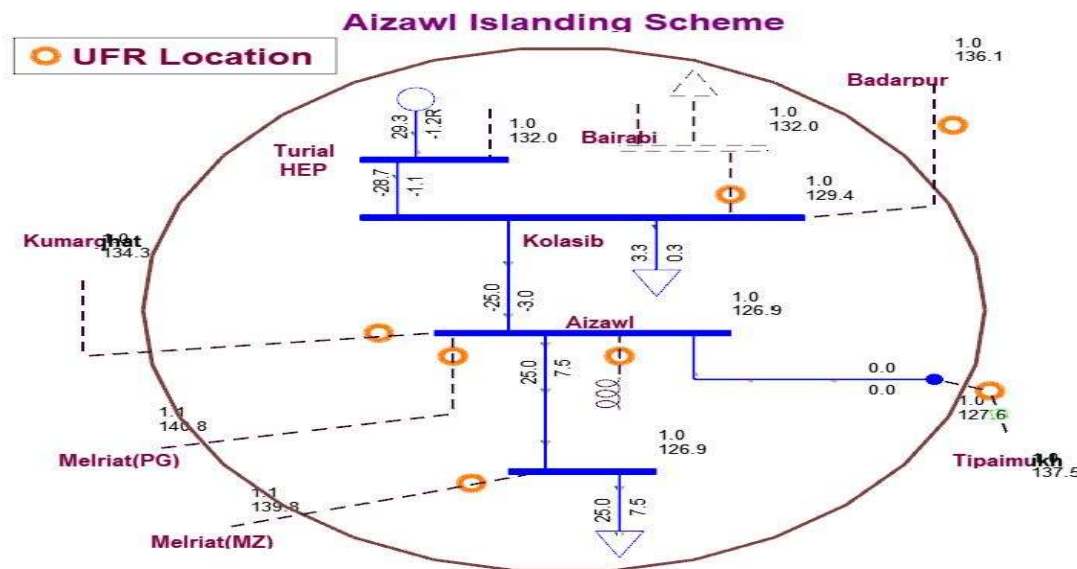
## D. Imphal Islanding scheme

Dynamic study to be done. Multi-machine involved, which necessitates real time monitoring of load and generation and load in the machine, therefore PMUs and centralized processors are required, as done for Guwahati Islanding scheme



## E. Aizawl Islanding scheme

Scheme finalised, Under implementation



## F. Meghalaya/Shillong Islanding Scheme

Stability issues observed in the dynamic study due to small size of the generating units involved. Further study to be done

**Placed for information of the forum and requesting the concerned utilities to complete the implementation at the earliest.**

## 5.3 Compliance with Annual Measurement of Harmonics, DC Injection, and Flicker by Renewable energy Plants as per CEA Regulations – NERLDC

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

Provided that in addition to annual measurement, if distribution licensee or transmission licensee or the generating company, as the case may be, desires to measure harmonic content or DC injection or flicker, it shall inform the other



*party in writing and the measurement shall be carried out within 5 working days”;*

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

As per deliberation of 226<sup>th</sup> OCC meeting held on 20<sup>th</sup> May 2025, Forum exhorted the Assam and Mizoram to provide the required details at the earliest to NERPC and NERLDC. Also, the forum requested state SLDCs to provide the charging clearance for Solar, wind and IBR based plants only after ensuring compliance with CEA regulations on testing of Harmonics, DC injection and flicker. SLDCs agreed to the same.

***SLDC may please update the status.***

#### **5.4 Issue in SEM data of 132 kV Dharmanagar end of Dullavcherra Feeder - NERLDC**

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.

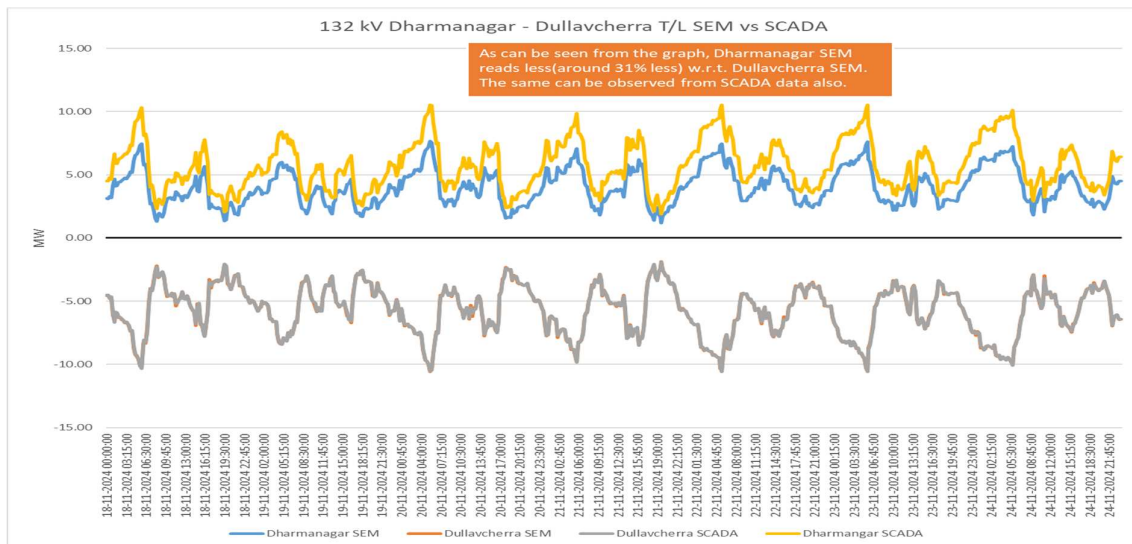
It is also to be noted that since 222<sup>nd</sup> OCCM held on 17<sup>th</sup> Jan 2025, data from Dharmanagar S/S has not been received by NERLDC from said substation. Issue with Vinplus Software had been mentioned by Tripura in the previous OCCM.

In the 225<sup>th</sup> OCCM, Tripura apprised the forum that DCD data have been received at Ambassa and Dharmanagar substations. However, due to technical issue with Vinplus software, SLDC Tripura is unable to transfer the

data to laptop. The forum advised Tripura to carry the laptop along with DCD data to Kumarghat substation where PGCIL will help Tripura to resolve the issue.

In the 226<sup>th</sup> OCCM, Tripura updated that issue will be tentatively resolved by next week

However, the same is yet to be resolved. 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. As per proposal of Forum on the 226<sup>th</sup> and 227<sup>th</sup> OCCM, the same is being put up in TCC/RPC meeting.



## 5.5 Issue in Receipt of data from Udaipur S/S -NERLDC

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<sup>rd</sup> December 2024(for 132 kV Udaipur end of Palatana T/L).

The same has been put up in multiple OCCMs. In the 222<sup>nd</sup> OCCM held on 17<sup>th</sup> January 2025, the forum advised Tripura to resolve the issue by next OCC meeting.



In the 225<sup>th</sup> OCCM, Tripura apprised the forum that DCD data has been received at Udaipur substation. However, due to technical issue with Vinplus software, SLDC Tripura is unable to transfer the data to laptop. The forum advised Tripura to carry the laptop along with DCD data to Kumarghat substation where PGCIL will help Tripura to resolve the issue.

In the 226<sup>th</sup> & 227<sup>th</sup> OCCM, Tripura updated that the issue will be resolved by next OCC meeting. However, Data from the replaced meter is yet to be received by NERLDC. Hence, as per proposal of Forum on the 226<sup>th</sup> and 227<sup>th</sup> OCCM, the same is being put up in TCC/RPC meeting.

**Forum may please discuss.**

**5.6 Receipt of SEM data from 132 kV Budhjungnagar, 132 kV Ambassa, 132 kV Dharmanagar, 132 kV PK Bari & 132 kV SM Nagar (TSECL) Substations - NERLDC**

As per deliberation in 175<sup>th</sup> OCCM dated 18<sup>th</sup> February 2021, Item No 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



**6. PART E: ITEMS IRECOMMENDED FOR REFERRAL TO SUB-COMMITTEE**

**6.1. Implementation of Digital Substation Control Protection & Substation Automation at LTPS, NRPP & KLHEP System of APGCL**

APGCL has submitted the DPR for Implementation of Digital Substation Control Protection & Substation Automation at LTPS, NRPP & KLHEP System of APGCL. This scheme will yield a reduction in operating costs and an increase in reliability, flexibility of the power system and further integration of protection & control events to accelerate response to problems. The forum is requested to approve the DPR for PSDF funding.

**6.2. Installation of DTPC for Protection Scheme and Replacement of Control & Relay Panels for R&M of EHV Sub-Stations in Nagaland.**

The power infrastructure in Nagaland has been undergoing a significant transformation and development to meet the growing energy demand, ensure grid reliability and modernizing outdated systems over the last few years. As part of this transformation, several new Extra High Voltage (EHV) substations are being constructed or planned out across the state to cater the increasing electricity demand and integration of power from renewable and central sector projects.

While infrastructure expansion is underway, the protection and control systems at many substations still remain outdated. Most of the existing EHV substations in the state were commissioned decades back and still use outdated protection, Control and Relay (CR) Panels and rely on Power Line Carrier Communication (PLCC) systems for communication which has in turn become inadequate to meet the requirements of a modern, fast-responding and resilient transmission system. At present, the existing PLCC is used only for basic Speech + Data functions thereby hindering execution of fast and coordinated protection schemes across its network. Furthermore, the absence



of remote monitoring and diagnostic capabilities with the existing infrastructure also limits visibility at the State Load Dispatch Centre (SLDC). The North Eastern Regional Power Committee (NERPC) & North Eastern Regional Load Despatch Centre (NERLDC) have also placed high priority on strengthening protection and telemetry schemes for ensuring full integration of all EHV substations into the regional protection and communication network.

In recent years, the Optical Ground Wire (OPGW) network and communication Systems has been implemented under NEFO and NERPSIP schemes covering several transmission lines and Sub-Stations in Nagaland. The remaining Transmission lines and sub-stations have also been covered under the scheme “Implementation of OPGW and Reliable Communication Scheme in Nagaland” sanctioned by PSDF. Leveraging the OPGW infrastructure, the adoption of **Digital Tele-Protection Couplers (DTPCs)** will greatly enhance protection performance and system reliability by enabling end-to-end tele protection over a secure and fast communication channel. Also, taking into consideration the rugged geography of Nagaland where accessibility to remote sub-stations remains a challenge and monsoon disrupts power lines frequently and with the increasing number of substations, DTPC-based protection scheme compatible both to OPGW and PLCC( as back up) shall ensure robust grid performance and protection.

The existing Control and Relay Panels in most of the existing EHV sub-stations in Nagaland have been in service for a very long time and become technically obsolete and is not compatible to integrate with SAS/SCADA Systems for future requirement. As most of the EHV sub-stations will soon be covered with OPGW connectivity and communication network, the upgradation to Automated Control and Relay Panels have become essential. The modernization of control room through automated Control and Relay panels will enable real-time monitoring, rapid fault detection and isolation and remote operational capabilities thereby ensuring better system stability and strengthening network reliability.



The project has been recommended during the 59<sup>th</sup> & 64<sup>th</sup> PCC Sub-Committee meeting of NERPC on account of System Stability.

The proposal “Installation of DTPC for Protection Scheme and Replacement of Control & Relay Panels for R&M of EHV Sub-Stations in Nagaland” consists of following scope of works:

- a) Installation of DTPCs at 132kV and 66kV sub-stations for end-to-end teleprotection compatible both to OPGW and PLCC (as back up) across Nagaland.
- b) Replacement of existing 132kV, 66kV and 33kV Control & Relay Panels by new Control & Relay Panels with Automation System.

The project has been conceptualized and proposed with the following

**goals & objectives:**

- i. Implementation of Autoreclose and carrier aided protection in the lines.
- ii. Facilitate accurate and fast isolation of faults through DTPCs thereby reducing risk of blackouts, widespread outages and safeguarding EHV transmission infrastructure.
- iii. The superior selectivity and sensitivity offered by DTPCs will ensure rapid and precise exchange of protection signals between remote ends, significantly reducing fault clearing times and minimizing system downtime thereby improving overall system reliability.
- iv. Modernize and strengthen the sub-station and transmission line performance in Nagaland by replacing outdated panels and protection devices in compliance with the existing national grid codes and standardized protection practices.
- v. Upgradation of the Control Relay Panels with automation system at 132kV, 66kV and 33kV sub-stations shall enable real-time monitoring and remote operation thereby ensuring better system control and fault response times.

In view of the above considerations, the objective to strengthen the protection and control infrastructure of EHV sub-stations and transmission lines in Nagaland through “Installation of DTPC for Protection Scheme and Replacement of Control & Relay Panels for R&M of EHV Sub-Stations in



Nagaland” with an estimated cost of **Rs. 8084.96 lakh** is hereby submitted for implementation under PSDF funding.

**6.3. Construction of 132/33kV, 2x25MVA sub-station at Mon with 132kV D/C transmission line from Longleng to Mon via Aboi along with associated 33kV line and 33kV & 132kV end equipment**

Power Supply to entire Mon district is catered through the lone, aged, long (165km) Single Circuit 66kV transmission line emanating from 132/66kV Substation at Mokokchung via Tuli – Naganimora - Tizit. Since, the lone, aged existing 66kV transmission line passes through a dense forest coupled with hilly & difficult terrain, with such a long span of 165 km, the frequency of unscheduled disruption of line is very high and due to the remoteness of the location of the transmission line it takes days for the department to locate and rectify the fault/ restore the transmission line. **And since there is no alternate source of power supply, there have been many instances, wherein the whole district was blacked out for days together resulting in public outcry and system instability.**

Therefore, an alternate robust source of power supply to Mon district is the need of the hour. In this regard, a 132kV substation at Longleng district Hq. is being constructed under NERPSIP Tranche-1 by POWERGRID which is nearing completion. Taking this opportunity, the department proposes to construct a 132kV D/C transmission line with OPGW with a route length of **44km from Longleng to Mon via Aboi** with a 132/33kV, 2x25MVA sub-station at Mon district head quarter with associated 33kV line for downstream connectivity.

The proposed 132 kV D/C transmission line from Longleng to Mon covers a total route length of about 44 km. The transmission line would also be interconnected with the proposed 132 kV S/C transmission line between Mokokchung–Tuli–Naginimora–Tizit–Mon; the 132 kV Zhadima–Niuland–Champhang–Longnak–Mokokchung line which has been planned under the Transmission Plan 2030/32 by the CEA and the existing 132 kV Longleng–Tuensang–Kiphire–Meluri–Kohima–Zhadima line. Thus, a complete 132 kV



ring circuit transmission line would be formed by connecting the 400/220 kV Zhadima and 220/132 kV Mokokchung substations, both of which are connected to the grid, thereby enhancing system flexibility, stability, and ultimately overall system reliability.

Taking note of the importance of 'Act East Policy of India' and requirement for socio-economic development in the far-eastern Indian states, which borders with Myanmar, the Mon District Planning & Development Board vide its letter No.DPMM/DPDB-1/2023-24, Dt. 19.05.2023 has recommended to the Government of Nagaland about the need to come up with alternate 132kV power source to Mon District.

Construction of 33kV D/C transmission line on lattice structure from the proposed 132/33kV Mon sub-station to the existing 66/33kV Mon sub-station with one no. of 33kV bay at 66/33kV Mon sub-station for downstream link (10km) for evacuation of power from this new sub-station has been incorporated in the scheme which will strengthen the distribution system in various towns and villages by installing new and also augmenting the existing transformers to meet the load demand and Stability of Power supply.

The proposal "Construction of 132/33kV, 2x25MVA sub-station at Mon with 132kV D/C transmission line from Longleng to Mon via Aboi along with associated 33kV line and 33kV & 132kV end equipment," consists of following scope of works:

- a) Construction of 132/33kV, 2x25 MVA sub-station at Mon with one 132kV sending end bay at Longleng.
- b) Construction of 132kV D/C Transmission line from Longleng to Mon via Aboi (44km).
- c) Construction of 33kV D/C Transmission line on lattice structure from the proposed 132/33kV Mon sub-station to the existing 66/33kV Mon sub-station with one no. of 33kV bay at 66/33kV Mon sub-station for downstream link (10km).

The project has been conceptualized and proposed with the following **goals & objectives**:



- i. The proposed sub-station on implementation shall provide an alternate grid power source to Mon district, which is an urgent need.
- ii. Development of the proposed sub-station and associated transmission lines shall mitigate shortages, provide reliability and cater to the load demand & growth, both intra and inter State.
- iii. The sub-station along with its transmission lines on completion shall establish a new transmission corridor in the NER region.
- iv. The proposed 132/33kV Sub-Station shall connect the existing 66/11kV & 66/33kV Mon sub-stations which will enhance reliability of power to Mon town and its surrounding areas. In case of any disturbance on the 66kV Transmission line from Mokokchung-Tuli-Naginimora-Tizit-Mon, the 132/33kV Sub-Station shall be able to support the entire load of Mon Town in the event of any eventuality.
- v. Provision has been kept for load growth with extensive capacity additions through Government of India's programme like DDUGJY, RDSS and State programme.
- vi. Nagaland is Phasing out 66kV system from the network.

In view of the above explanations for the urgent need to “construct 132/33kV, 2x25MVA sub-station at Mon with 132kV D/C transmission line from Longleng to Mon via Aboi along with associated 33kV line and 33kV & 132kV end equipment,” with an estimated cost of **Rs. 16655.97 lakh**, the project proposal is hereby submitted for implementation under PSDF funding.

#### **6.4. PROPOSAL FOR PROCUREMENT OF MODERN DIAGNOSTIC TOOLS FOR SUBSTATIONS UNDER MSPCL AND ESTABLISHMENT OF A PERIODIC CALIBRATION SYSTEM - MSPCL**

Manipur State Power Company Limited (MSPCL) operates and maintains the transmission infrastructure in Manipur, including several 33/11 kV, 132/33 kV and 400/132 kV substations. Currently, the diagnostic capabilities at many substations are limited due to the lack of essential



modern diagnostic tools and equipment. This shortfall affects the efficiency of preventive and predictive maintenance, delayed fault detection, and increases the risk of equipment failures and unplanned outages. Additionally, the absence of a structured calibration regime reduces the accuracy and reliability of test results, which may lead to erroneous diagnoses and delayed fault rectification.

To enhance asset reliability, reduce equipment downtime, and implement condition-based maintenance practices, MSPCL proposes to procure critical diagnostic tools for its substations and establishment of a periodic calibration system to maintain the precision and effectiveness of these tools.

The following diagnostic tools have been identified as priority equipment for substations under MSPCL:

| <b>Sl.No.</b> | <b>Diagnostic Tool</b>                    | <b>Purpose</b>                                  |
|---------------|-------------------------------------------|-------------------------------------------------|
| 1             | Dissolved Gas Analysis (DGA) Kit          | Transformer fault and oil degradation detection |
| 2             | Transformer Oil Test Kit                  | Assess Insulation health and detect faults      |
| 3             | Circuit Breaker Analyzer                  | Measure timing, contact travel and resistance   |
| 4             | Primary & Secondary Injection Test Kit    | Testing of CTs/PTs and protection relays        |
| 5             | Contact Resistance Meter                  | Assess CB and Isolator contact condition        |
| 6             | Tan Delta & Capacitance Test Kit          | Assess insulation deterioration                 |
| 7             | Insulation Resistance Tester (5 kV/10 kV) | Test winding insulation resistance              |
| 8             | Earth Resistance Tester                   | Verify grounding system effectiveness           |



|    |                                   |                                                        |
|----|-----------------------------------|--------------------------------------------------------|
| 9  | Partial Discharge Measurement Kit | Early detection and insulation defects                 |
| 10 | CT/PT Analyzer                    | Analyze CT/PT performance characteristics              |
| 11 | Thermal Imaging Camera            | Hotspot detection in live switchyard equipment         |
| 12 | Partial Discharge Detection Kit   | Partial Discharge detection                            |
| 13 | SFP Gas Quality Analyzer          | Purity and moisture check for SF <sub>6</sub> breakers |

In this regard, MSPCL proposes that NERPC recommend the initiative for funding under PSDF (Power System Development Fund), or coordinating with CEA/Ministry of Power for financial support.

Considering the above facts, the Committee may kindly support following request of MSPCL:

- Approval in principle for procurement and calibration framework.
- Recommendation for central or regional funding support.
- Encouragement of regional collaboration for mobile calibration facilities or shared testing infrastructure.
- Facilitation of NERPC-level capacity-building workshops on modern diagnostic practices and tool calibration.

# Annexures

### **Gas Blending at Palatana Station:**

We have gone through the draft minutes of the 28th TCC and NERPC meeting and would like to point out certain corrections in minutes for point 3.6 regarding blending of gas at Palatana.

We would also like to put forward certain facts for your kind consideration:

1. It may kindly be noted that OTPC has binding PPAs (not MOUs) with the seven NE beneficiary states and GSPA with fuel supplier.
2. The fuel supplier is honoring the GSPA and has been providing the requisite amount of gas to Palatana as per GSPA terms and conditions.
3. The tariff for the Palatana project has always been determined by CERC and OTPC too has been reiterating the same while placing the blending agenda in various meetings of NERPC.

In view of the above and in line with the discussions held at 28th NERPC forum meeting, we suggest the following resolution on 29th NERPC meeting.

*“The agenda was deliberated in detail during the 28<sup>th</sup> NERPC meeting wherein all the beneficiary states of Palatana except Meghalaya, supported the proposal of blending of gas at Palatana. However, CMD, MeECL opined that Meghalaya shall discuss and give its response to OTPC after discussion of the agenda with its Board. Meghalaya CMD also added that NERPC forum cannot take decision on the matter of tariff which is determined by CERC.*

*OTPC representative submitted that states have given positive responses during bilateral discussions and Mizoram has already given a formal written consent. OTPC representative agreed that Palatana shall approach CERC for tariff determination upon receipt of responses from its beneficiary states. Further, NERPC forum is only facilitating a discussion on the facts and estimated figures presented by Palatana.*

*After detailed deliberation on the subject, the forum opined/recommended that Palatana may be allowed to blend upto 0.3 MMSCMD of additional gas to improve its performance parameters and financial distress. However, Palatana is advised to approach individual beneficiaries for their approvals and take up the tariff fixation with CERC.”*

## Annexure 1.3

### Action taken report by NERPC Secretariat

| SI No | ISSUES                                                                                         | TCC/NERPC MEETING | MEETING DELIBERATION                                                                                                                                                                                                                                     | Action taken/to be taken                                                                                |
|-------|------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 1     | Resolving the operational challenges at the DISCOM level                                       | 28th TCC/NERPC    | NERPC forum acknowledged the need for a separate sub-committee for discussing and resolving the operational issues of DISCOMs, which will meet quarterly to address the said challenges                                                                  | Quarterly meetings are being conducted with the DISCOMS to discuss and resolve their operational issues |
| 2     | Workforce Adequacy and Short-Term Knowledge-Sharing Exchange Program for Load Despatch Centres | 28th TCC/NERPC    | Member (GO&D), CEA suggested that this forum may highlights the workforce shortages issue and critical gaps in SLDCs across NER through resolution to MoP.                                                                                               | Resolution sent                                                                                         |
| 3     | Recovery of Relinquishment charges as per the direction of CERC in order dated 08.03.2019      | 28th TCC/NERPC    | The forum agreed to explore the possibility of Assam representing all NER states in legal proceedings and suggested coordinated efforts strategize the way forward. Further CTU agreed to conduct the special meeting with NER state to create awareness | CTU is yet to conduct the special meeting with NER states to create awareness                           |

|   |                                                                                   |                       |                                                                                                                                                           |                                                                                                                                 |
|---|-----------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 4 | <b>Blending of Gas at OTPC Palatana Project</b>                                   | <b>28th TCC/NERPC</b> | After detailed deliberations, forum opined that OTPC Palatana may take up the matter with CERC and approach beneficiary states for their board approvals. | OTPC Paltana to update                                                                                                          |
| 5 | <b>Proposal for procuring 1 no. of 100 KVA Backup DG set at NERPC Secretariat</b> | <b>28th TCC/NERPC</b> | NERPC forum noted and approved the recommendation of TCC.                                                                                                 | Work to start on the matter                                                                                                     |
| 6 | <b>Proposal for sanction of budget for organizing 16th NPC Meeting</b>            | <b>28th TCC/NERPC</b> | NERPC forum noted and approved the recommendation of TCC.                                                                                                 | 16 NPC has been organised by NERPC on 04.07.2025 with the sanctioned amount.                                                    |
| 7 | <b>Roster for TCC/NERPC Meeting -NERPC</b>                                        | <b>28th TCC/NERPC</b> | DoP Mizoram to host 29th TCC/NERPC Meeting tentatively in June'2025                                                                                       | Mizoram could not conduct the meeting due to extreme rainfall and landslides. NETC has been conducting the 29th TCC/RPC meeting |

Table: Forest Cover in North Eastern States

| State                    | Geographi-<br>cal Area | Inside RFA/GW    |                  |                  |                    | Outside RFA/GW  |                 |                  |                 |                                             | Total Forest<br>and Tree<br>Cover (A+B) | Percent<br>(%) | Scrub           |
|--------------------------|------------------------|------------------|------------------|------------------|--------------------|-----------------|-----------------|------------------|-----------------|---------------------------------------------|-----------------------------------------|----------------|-----------------|
|                          |                        | VDF              | MDF              | OF               | Total (A)          | VDF             | MDF             | OF               | Tree<br>Cover   | Total (in-<br>cluding<br>Tree Cover)<br>(B) |                                         |                |                 |
|                          |                        |                  |                  |                  |                    |                 |                 |                  |                 |                                             |                                         |                |                 |
| <b>Arunachal Pradesh</b> | 83,743.22              | 19,637.05        | 26,699.94        | 11,836.97        | 58,173.96          | 1,348.27        | 2,915.15        | 3,444.19         | 1,201.63        | 8,909.24                                    | 67,083.20                               | 80.11          | 1,058.98        |
| <b>Assam</b>             | 78,438.00              | 2,833.31         | 8,333.78         | 8,529.64         | 19,696.73          | 356.40          | 1,430.76        | 6,829.66         | 2,101.46        | 10,718.28                                   | 30,415.01                               | 38.78          | 240.93          |
| <b>Manipur</b>           | 22,327.00              | 893.52           | 5,744.86         | 8,152.43         | 14,790.81          | 10.53           | 472.69          | 1,311.43         | 209.82          | 2,004.47                                    | 16,795.28                               | 75.22          | 973.65          |
| <b>Meghalaya</b>         | 22,429.00              | 547.93           | 7,502.05         | 6,600.87         | 14,650.85          | 46.91           | 1,521.76        | 747.32           | 720.56          | 3,036.55                                    | 17,687.40                               | 78.86          | 620.41          |
| <b>Mizoram</b>           | 21,081.00              | 259.83           | 8,438.53         | 8,931.24         | 17,629.60          | 1.69            | 197.23          | 161.94           | 567.80          | 928.66                                      | 18,558.26                               | 88.03          | 314.54          |
| <b>Nagaland</b>          | 16,579.00              | 1,156.13         | 3,168.30         | 4,195.60         | 8,520.03           | 100.25          | 1,293.51        | 2,308.68         | 394.02          | 4,096.46                                    | 12,616.49                               | 76.07          | 667.27          |
| <b>Sikkim</b>            | 7,096.00               | 831.08           | 879.76           | 349.79           | 2,060.63           | 272.23          | 676.13          | 349.41           | 48.33           | 1,346.10                                    | 3,406.73                                | 48.01          | 303.49          |
| <b>Tripura</b>           | 10,486.00              | 393.77           | 3,719.84         | 1,242.58         | 5,356.19           | 220.66          | 1,210.15        | 797.77           | 247.56          | 2,476.14                                    | 7,832.33                                | 74.69          | 173.27          |
| <b>Total</b>             | <b>2,62,179.22</b>     | <b>26,552.62</b> | <b>64,487.06</b> | <b>49,839.12</b> | <b>1,40,878.80</b> | <b>2,356.94</b> | <b>9,717.38</b> | <b>15,950.40</b> | <b>5,491.18</b> | <b>33,515.90</b>                            | <b>1,74,394.70</b>                      | <b>66.52</b>   | <b>4,352.54</b> |

\* Change in Forest Cover has been calculated from the revised figure of ISFR 2021.



F.No.1/ 66/ 2023/IT&CS (P-270246)  
Government of India  
Ministry of Power  
IT & Cyber Security Division

Shram Shakti Bhawan, Rafi Marg,  
New Delhi. Dated: 26.3.2025

**OFFICE MEMORANDUM**

Subject : Minutes of Meeting (MoM) on Review of Status of Cyber Security in Power Sector-reg.

The undersigned is directed to forward herewith the Minutes of Meeting (MoM) on Review of Cyber Security in Power Sector held on 21.3.2025 under the Chairmanship of Secretary, Power for information and further necessary action.

2. This issues with the approval of the competent authority.

Encl.: As above

  
(Hemant Kumar)  
Section Officer (IT&CS)  
Tel.No. 23715507 Extn.370  
email : it-mop@nic.in

1. Secretary, MeitY
2. CMD-NTPC/Powergrid/NHPC/Grid India/SECI
3. DG-CERT-In
4. DG-NCIIPC
5. DG-CPRI
6. DG-NPTI
7. CISO-MoP
8. Sectoral CERTs-(CERT-Thermal, CERT-Hydro, CERT-Trans., CERT-Distribution, CERT-Grid Operations, CERT-RE).

Copy to

1. PPS to Secretary, Power
2. Sr.PPS to AS (IT&CS)
3. PPS to JS (Admn.)
4. Sr.PPS to JS (Trans.)
5. PPS to Dir. (IT&CS)

## **Minutes of Meeting held under the chairmanship of Secretary (Power) on 'Review of Cyber Security in Power Sector' held on 21.03.2025.**

A meeting was held on the above mentioned subject under the chairmanship of Secretary (Power). The list of Participants is at Annexure.

2. At the outset, the Secretary (Power), while welcoming all participants, acknowledged the significant progress achieved in the field of cybersecurity in recent months and emphasized the importance of maintaining sustained focus on this critical area.

**3. Quality and Cost-Based Selection (QCBS) criteria to improve audit quality:** CISO-MoP informed that the guidelines around the QCBS criteria for external cybersecurity auditors in the power sector has been prepared in consultation with CERT-In and has been issued for compliance. AS(IT&CS) advised that the stringent Technical Qualification (TQ) criteria for pre-qualification of the vendors may be explored along with the QCBS to further refine the audit quality.

**4. Indigenous Security Operations Centre (SOC) development:** CISO-MoP briefed about the various action taken on this subject matter and presented the decisions taken in meeting under the chairmanship of AS(IT&CS) which was held on 06.03.2025. The representative from NCIIPC stated that the Detailed Project Report for the phase – 2 of the project is under finalization which would incorporate the design issues identified during the implementation of the phase – 1. The representative from CERT-In advised that the proposed SOC should be scalable and underlined the need for OT SOC in the power sector. He also discussed about the other Make in India SOC solutions available. Adding into this discussion, representative from Grid-India informed that Grid-India has deployed an indigenous SOC solution, and the performance is satisfactory. Grid India suggested that the deployment of Network Operations Centre (NOC) may be included alongside the SOC as mandated by IT Rules, 2018. To further streamline the SOC deployments at power sector utilities, Secretary (Power) suggested to revise the proposals to include indigenous SOC solutions and 5 years Annual Maintenance Contract (AMC).

**5. Staffing at SLDCs:** It was noted that a DO letter from Secretary (Power) has been sent to all SLDCs to ensure adherence to the staffing guidelines and staffing has been linked to the Power System Development Fund (PSDF) funding.

**6. Mandated testing of imported equipment:** CISO-MoP briefed about the MoP orders on cybersecurity testing of imported products and stated that even in those products (Smart Meters, RTUs, IEDs etc.) falling under "Make in India" category, smart components like ICs, communication modules are being imported and thus, do not fall under the ambit of such Orders. He suggested to widen the scope of MoP order dated 2<sup>nd</sup> July 2020 on cybersecurity testing to include products falling under Make in India category whose smart components are being imported. DG-CPRI stated that the CPRI

has device-level testing capabilities. Secretary (Power) advised to expedite the review of the order and suggested to schedule a detailed review of the cybersecurity testing capabilities and roadmap in the power sector.

**7. Trusted Vendor System power sector:** CISO-MoP briefed about the action taken and draft implementation plan of the Trusted Sources/Trusted Product. Secretary (Power) while agreeing to the suggested roadmap for the implementation, suggested that stakeholder consultation may be done in this regard to ensure that the impacted utilities are onboard for smooth implementation of the scheme.

**8. Cybersecurity training programmes:** CISO-MoP shared that multiple cybersecurity training programmes tailored to power sector needs are being conducted at the reputed institute like Rashtriya Raksha University, Gandhinagar and IIT-Kanpur. He also noted that efforts are underway to deliver cybersecurity training programmes at Powergrid Centre of Excellence at IISc Bengaluru. The NPTI representative noted that while feedback for basic training is positive, participation from Gencos and state DISCOMs is low, and recommended sending communications to improve participation. The representative from CERT-In advised to conduct curated programmes for different levels of executives in power sector utilities. Secretary (Power) appreciated these ongoing efforts of capacity and capability building in power sector and suggested to explore MoP funding of the training programmes through appropriate budgetary allocation.

**9. Functioning of CSIRT-Power:** CISO-MoP apprised the stakeholders regarding the operations of CSIRT-Power various mechanism of incident detection like TSOC dashboard, CSK alerts and Threat Intel from NCIIPC Threat Dissemination Platform. He informed that discussion is being done with CERT-In for integration with National Cyber Coordination Center platform also. The representative from CERT-In added to the discussion of incident management and the reported malware infections in power sector and emphasised, the identification of threat actors particularly, Advanced Persistent Threat (APT) groups involved and requested to deploy manpower from CSIRT-Power in CERT-In for better coordination.

**10. Cybersecurity concerns in the RE sector:** CISO-MoP discussed the cybersecurity challenges being faced in the re sector including observed cyber security concerns and need for enhancing enforcement mechanism. He suggested to mandate verification of third-party cybersecurity audit and compliances before granting First Time Charging (FTC) clearance by respective Load Dispatch Centers. Secretary (Power) acknowledged the concern raised regarding RE in the meeting and importance of the matter and suggested to take necessary measures in this regard. He advised to explore the CISO-MoP proposal of inclusion of cybersecurity audit and their compliance during the FTC, while providing a reasonable preparatory period to the stakeholders. He also suggested to conduct pilot audits for RE generators to review the present cybersecurity posture.

11. After detailed deliberations, the following decisions were made:

- i. The SOC proposals that are submitted under the PSDF-funded scheme should be revised to include indigenous SOC, NOC solutions and a 5-year Annual Maintenance Contract (AMC).

**(Action: CISO-MoP)**

- ii. Standing Finance Committee (SFC) proposal for creation of a budget line for cybersecurity in Power Sector to be expedited.

**(Action: CISO-MoP, IT & CS division - MoP)**

- iii. The Scheme of Trusted Sources/Trusted Products should be implemented for identified IT equipment as per the proposed plan, and stakeholder consultations should be held as required.

**(Action: CISO-MoP, IT & CS division - MoP)**

- iv. MoP order dated 2<sup>nd</sup> July 2020 on cybersecurity testing may be amended to include device level testing for products falling under Make in India category whose smart components are being imported.

**(Action: CISO-MoP, Transmission division - MoP)**

- v. Inclusion of verification of cyber security posture during First Time Charging (FTC) procedures may be explored by LDCs, while providing reasonable preparatory period for compliance.

**(Action: CISO-MoP, Grid-India)**

- vi. Pilot audit of RE generator cybersecurity posture may be conducted to verify and enhance the cyber security preparedness in RE sector.

**(Action: CISO-MoP)**

- vii. A detailed catalogue of cybersecurity testing facilities in the country may be created.

**(Action: CISO-MoP)**

- viii. MoP funding for the cybersecurity training for different power utilities through budgetary provisions may be explored.

**(Action: Training & Research division – MoP)**

The meeting ended with a vote of thanks to all participants.

\*\*\*\*\*

**Model BOQ for PSDF funding of Indigenous SOC (including Indigenous NOC) Projects at SLDCs**

| Sr.No      | Description                                                                                                                                                                                                                              | Unit | Qty | Remarks                                                                                                                                                                                                                                                                                                                        |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A</b>   | <b>Indigenous SOC:<br/>Cost of the Software &amp; Hardware including 5 years Back-to-Back OEM Warranty / Support, Product Update and 5 years AMC</b>                                                                                     |      |     |                                                                                                                                                                                                                                                                                                                                |
| <b>A.1</b> | <b>Software and Hardware for Indigenous SOC</b>                                                                                                                                                                                          |      |     |                                                                                                                                                                                                                                                                                                                                |
| i          | Next Generation Security Information and Event Management (NG SIEM)                                                                                                                                                                      | Lot  | 1   | Considered Licensing for max 6000 events per second or equivalent per SLDC including integration for IT & SAMAST project; SCADA; REMC & URTDSM along with OT Backup logs.                                                                                                                                                      |
| ii         | Security Orchestration, Automation and Response (SOAR)                                                                                                                                                                                   | Lot  | 1   | As per SIEM licensing                                                                                                                                                                                                                                                                                                          |
| iii        | Network Behaviour Anomaly Detection (NBAD)                                                                                                                                                                                               | Lot  | 1   | Licensing of max 100mbps Network traffic may be considered initially per SLDC                                                                                                                                                                                                                                                  |
| iv         | User and Entity Behaviour Analytics (UEBA)                                                                                                                                                                                               | Lot  | 1   | Profile creation and monitoring capability of max 500 Users or equivalent per SLDC may be considered                                                                                                                                                                                                                           |
| v          | Database Activity Monitoring (DAM)                                                                                                                                                                                                       | Lot  | 1   | Licensed for max 15 Databases or equivalent per SLDC including all installation                                                                                                                                                                                                                                                |
| vi         | 2x2 55 inch Video Wall with CPU                                                                                                                                                                                                          | No   | 1   | for SOC Control Room setup (as per space availability)                                                                                                                                                                                                                                                                         |
| vii        | 24x7 Workstation                                                                                                                                                                                                                         | Nos. | 4   | for SOC Shift operator and other security analysts                                                                                                                                                                                                                                                                             |
| viii       | Log Collectors in HA (in active-passive mode of operation)                                                                                                                                                                               | Pair | 6   | The quantity considered per SLDC includes Log Collector at OT DR site also. OPLC in HA per network of installation may be considered.                                                                                                                                                                                          |
| ix         | Necessary Server & Storage infrastructure / Hyper Converged Infrastructure for complete SOC solution (working in HA mode at DC with minimum N-1 redundancy) along with necessary Licensing for Hypervisor Kernel and Server OS platforms | Lot  | 1   | Storage sizing should include capability of storing 3 months log on the fly and at least balance 6 months log in archived / compressed mode.<br>Hardware sizing to be considered should be capable of running full functionality of the SOC modules on High-availability in N-1 scenario (i.e.. in One Node failure condition) |

### Annexure-III

|      |                                                                                                                                           |            |    |                                                                                                                                                                                                                                                                                                                                                                                                        |
|------|-------------------------------------------------------------------------------------------------------------------------------------------|------------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| x    | Firewall on HA (in active-passive mode of operation) with 5 year support & subscription                                                   | Pair       | 1  | Firewall may be considered if the SOC infrastructure to be planned for hosting in a independent network infrastructure                                                                                                                                                                                                                                                                                 |
| xi   | Server Rack                                                                                                                               | Nos.       | 2  | 2 nos. rack considered to have rack level redundancy                                                                                                                                                                                                                                                                                                                                                   |
| xii  | Switches & Router                                                                                                                         | Lot        | 1  | As per integration requirement and network architecture                                                                                                                                                                                                                                                                                                                                                |
| xiii | Cable & accessories                                                                                                                       | Lot        | 1  |                                                                                                                                                                                                                                                                                                                                                                                                        |
| xiv  | Installation, configuration and training                                                                                                  | LS         | LS |                                                                                                                                                                                                                                                                                                                                                                                                        |
| A.2  | Comprehensive AMC along with L1& L2 Resources for Indigenous SOC                                                                          |            |    |                                                                                                                                                                                                                                                                                                                                                                                                        |
| i    | Comprehensive Operation and Maintenance cost for SOC                                                                                      | Months     | 60 | This may be considered in view of the technical complexity of the project and lack of technically skilled manpower to utilize the full potential of the SOC installation harnessing the implementation for right output. The outsourced technically skilled resources may be gradually replaced by dedicated in-house resources through proper training and familiarization.                           |
| ii   | Deputation of outsourced technical experts for operating the SOC 24 x 7 (1 nos of Level 1 and 1 nos of Level 2 resources round the clock) | Months     | 60 |                                                                                                                                                                                                                                                                                                                                                                                                        |
| B    | Indigenous NOC -: Cost of the Software & Hardware including 5 years Back-to-Back OEM Warranty / Support, Product Update and 5 years AMC   |            |    |                                                                                                                                                                                                                                                                                                                                                                                                        |
| B.1  | Software and Hardware for Indigenous NOC                                                                                                  |            |    |                                                                                                                                                                                                                                                                                                                                                                                                        |
| i    | Network Management System (NMS)                                                                                                           | Lot (S/W)  | 1  | NMS having functionalities of network monitoring, performance monitoring, configuration management and change management                                                                                                                                                                                                                                                                               |
| ii   | ITSM Tool                                                                                                                                 | Lot (S/W)  | 1  | For managing IT services, incidents, requests, and issues efficiently to ensure continuous IT service availability                                                                                                                                                                                                                                                                                     |
| iii  | Data Diode to restrict traffic from IT to OT system                                                                                       | Nos. (H/W) | 1  | Shall use Hardware based data diode to transfer data securely in one direction. Device shall support wide range of industrial OT and corporate IT protocols and applications. The offered solution must include all necessary components, Hardware, Software, and Licenses thereof to install the entire solution as a no-single-point of-failure high-availability system without custom engineering. |

### Annexure-III

|                                                                                                                                                                                         |                                                                                                                                                                 |           |    |                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| iv                                                                                                                                                                                      | A.) Necessary Server & Storage infrastructure / Hyper Converged Infrastructure for complete NOC solution (working in HA mode at DC with minimum N-1 redundancy) | Lot (H/W) | 1  | Storage sizing should include capability of storing 3 months log on the fly and at least balance 6 months log in archived / compressed mode. Hardware sizing to be considered should be capable of running full functionality of the NOC modules on High-availability in N-1 scenario (i.e. in One Node failure condition)                                                     |
|                                                                                                                                                                                         | B.) Licensing for Hypervisor Kernel and Server OS platforms with virtualization software                                                                        | Lot (S/W) |    |                                                                                                                                                                                                                                                                                                                                                                                |
| v                                                                                                                                                                                       | 24x7 Workstation                                                                                                                                                | Nos.(H/W) | 2  | for NOC Shift operator and other security analysts                                                                                                                                                                                                                                                                                                                             |
| vi                                                                                                                                                                                      | Server rack                                                                                                                                                     | Nos.(H/W) | 2  | 2 nos. rack considered to have rack level redundancy                                                                                                                                                                                                                                                                                                                           |
| vii                                                                                                                                                                                     | Cable and accessories                                                                                                                                           | Lot       | 1  |                                                                                                                                                                                                                                                                                                                                                                                |
| viii                                                                                                                                                                                    | Installation, configuration and training                                                                                                                        | LS        | LS |                                                                                                                                                                                                                                                                                                                                                                                |
| B.2                                                                                                                                                                                     | Indigenous NOC Operational Cost                                                                                                                                 |           |    |                                                                                                                                                                                                                                                                                                                                                                                |
| i                                                                                                                                                                                       | Comprehensive Operation and Maintenance cost for NOC                                                                                                            | Months    | 60 | This may be considered in view of the technical complexity of the project and lack of technically skilled manpower to utilize the full potential of the NOC installation harnessing the implementation for right output. The outsourced technically skilled resource(s) may be gradually replaced by dedicated in-house resources through proper training and familiarization. |
| ii                                                                                                                                                                                      | 01(one) No. of L1 Manpower support for NOC operations                                                                                                           | Months    | 60 |                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Note:</b><br>1. The SOC and NOC solution should be indigenous.<br>2. Sizing shall depend upon to SLDC to SLDC basis based on no. of connected network, devices integrated and users. |                                                                                                                                                                 |           |    |                                                                                                                                                                                                                                                                                                                                                                                |

No. 15/3/2018-Trans-Part(5)  
Government of India  
Ministry of Power  
Shram Shakti Bhawan, Rafi Marg, New Delhi- 110001

Date: 18<sup>th</sup> February, 2025

**OFFICE ORDER**

**Subject: Amendment in the composition of the "National Committee on Transmission" (NCT) - reg.**

The undersigned is directed to state that the composition of the existing National Committee on Transmission (NCT), issued vide this Ministry's Office Order No. 15/3/2018-Trans-Pt(5) dated 28.10.2021 (copy enclosed), is hereby amended as follows:

**Composition of NCT:**

|    |                                                                                                           |                  |
|----|-----------------------------------------------------------------------------------------------------------|------------------|
| 1  | Chairperson, CEA                                                                                          | Chairman         |
| 2  | Member (Power System), CEA                                                                                | Member           |
| 3  | Member (Economic & Commercial), CEA                                                                       | Member           |
| 4  | Joint Secretary level officer looking after transmission in M/O of New & Renewable Energy, Govt. of India | Member           |
| 5  | Director (Trans), M/o Power, Govt. of India                                                               | Member           |
| 6  | Chief Operating Officer, Central Transmission Utility                                                     | Member           |
| 7  | CMD, GRID-INDIA                                                                                           | Member           |
| 8  | Advisor (Energy), NITI Aayog                                                                              | Member           |
| 9  | Two Experts from Power Sector to be nominated by MoP *                                                    | Members          |
| 10 | Nominee of each of the five Regional Power Committees (RPCs)                                              | Members          |
| 11 | Chief Engineer (from Power System Wing), CEA                                                              | Member Secretary |

\*will be nominated for a maximum period of two years from the date of their nomination.

2. The Terms of Reference (ToR) of the NCT and other conditions shall remain the same as mentioned in this Ministry's Office Order No. 15/3/2018-Trans-Pt(5) dated 28.10.2021.

3. This issues with the approval of the Minister of Power.

*Indu, 18/2/25*  
(Naorem Indrakumar Singh)  
Under Secretary (Trans)  
Tele-Fax: 2332 5242  
Email: transdesk-mop@nic.in

To

1. All Members of NCT.
2. Secretary, Ministry of New & Renewable Energy, Govt. of India.
3. Chairperson, CEA, New Delhi.
4. Secretary, CERC
5. Chairperson of all five Regional Power Committees (RPCs)
6. CMDs of all CPSUs under the Ministry of Power, Govt. of India.
7. Heads of all autonomous bodies under the Ministry of Power, Govt. of India
8. Finance/ Budget Section, Ministry of Power.
9. Power/ Energy Secretaries of all States/UTs.
10. Chief Executives of all State Power Transmission Utilities.
11. CEO, NITI Aayog, New Delhi.

Copy to:

- i. PS to Hon'ble MoP/ PS to Hon'ble MoSP/Sr PPS/ PPS/ PS to Secretary(Power)/ AS(T)/AS(IC)/ all Joint Secretaries/ Economic Advisor/ All Chief Engineers/ all Directors/ Dy. Secretaries, Ministry of Power.
- ii. Technical Director, NIC, M/o Power, for publishing this order on the website of M/o Power.

*Handwritten signature*  
18/2/25

# **Annex-A**

## **Qualification Requirements for selection of prospective Bidders for Third Party Protection Audit**

Qualifying Criteria for this bid shall be as mentioned as under herein and shall prevail over other conditions in the bid, in case of any conflict or inconsistency.

**The bidders must fulfill the following minimum Qualifying Criteria:**

### **1. Technical Criteria –**

- (a) To ensure that the selected contractor has the technical expertise and resources to execute the protection audit effectively, the following technical qualification criteria must be met:

#### **Experience in Protection System Audits**

The bidder must have extensive experience in conducting protection system audits, relay coordination studies, and testing of protection devices.

- Project Experience:

The bidder must have successfully completed at least:

Two (2) protection system audit projects for 132 k V and above substations each since 2019 for generation/ transmission utility.

- Works carried out under Sub-Contract without consent from Principal Client/Owner will not be considered as Similar Completed Work
- Bidder shall upload statutory requirement as per extant rules

#### **Project References and Testimonials**

The bidder must provide references and testimonials from previous clients to demonstrate their expertise and reliability. Each reference must include:

- Name of the client organization.
- Contact details of the project manager or point of contact.
- Brief description of the project scope and deliverables.
- Contract value and project duration.
- A completion certificate and performance report from the client mentioning details of designated team.

#### **Personnel Requirements**

The bidder must have a dedicated team of qualified and experienced personnel to execute the project. The team must include one team leader and at least three protection engineers:

- Team Leader:
  - Nationality should be Indian

- Bachelor's degree in Electrical Engineering/ Electrical and Electronics Engineering with minimum of 10 years of experience in protection systems, protection audit etc including experience as team leader in minimum 2 no of protection audit projects of 132 k V system and above.

Or

Master's degree in fields associated with Electrical Engineering and Bachelor's degree in Electrical Engineering/ Electrical and Electronics Engineering with minimum of 7 years of experience in protection systems, protection audit etc including experience as team leader in minimum 2 no of protection audit projects of 132 k V system and above.

Or

PhD. in fields associated with Electrical Engineering, Master's degree in fields associated with Electrical Engineering and Bachelor's degree in Electrical Engineering/ Electrical and Electronics Engineering with minimum of 3 years of experience in protection systems, protection audit etc including experience as team leader in minimum 2 no of protection audit projects of 132 k V system and above.

- **Protection Engineers:**

- Nationality should be Indian
- Bachelor's degree in Electrical Engineering/ Electrical and Electronics Engineering with minimum of 7 years of experience in protection systems, protection audit etc
- Or
- Master's degree in fields associated with Electrical Engineering and Bachelor's degree in Electrical Engineering/ Electrical and Electronics Engineering with minimum of 5 years of experience in protection systems, protection audit etc
- Or
- PhD. in fields associated with Electrical Engineering, Master's degree in fields associated with Electrical Engineering and Bachelor's degree in Electrical Engineering/ Electrical and Electronics Engineering with minimum of 3 years of experience in protection systems, protection audit etc

- List of copies of documents given below signed by the proposed professional staff attested by current employer must be submitted by bidder-

- a) Identity Proof (PAN Card/ Voter ID)
- b) Proof of Qualification (Degree / Mark Sheet)
- c) Proof of Experience (Experience Certificate by employer / client)
- d) CV

- Bidder needs to ensure that team member whose Profile is being submitted along with the bid, shall only be allowed to conduct protection audit. In case of change in any team member within contract, decision will be solely on decision of Member Secretary, RPC.

## **2. Financial Criteria / turnover:**

The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year should be (as per contract).

Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant

indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3-year-old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.

The certificate from Chartered Accountant/Cost Accountant indicating the turnover details for the relevant period should also contain UDIN.

**Note:** MSEs and Start-ups are exempted only from Prior Turnover criteria as mentioned at Sl. No. 2 above. However, qualifying requirements mentioned at Sl. No. 1 above is mandatory for all bidders including MSEs & start-ups.

### **3. Evaluation and Selection Criteria**

The evaluation and selection of the bidder for the protection audit project will be based on a comprehensive assessment of technical, financial, and operational capabilities. The criteria are designed to ensure the selection of a competent, experienced, and reliable bidder.

#### **Pre-Qualification Criteria**

Bidders must meet the following pre-qualification criteria to be considered for further evaluation:

##### **a) Legal Eligibility:**

- The bidder must be a registered legal entity in India or a recognized international organization with authorization to operate in India.
- Valid registration certificates and statutory clearances (if any) must be submitted.
- Bidder should not be the OEM or its authorized representative of any protection system. Self-Declaration shall be submitted in this regard.
- Bidders should not have Joint venture with OEM of any protection system. Self-Declaration shall be submitted in this regard.

##### **b) Technical manpower strength:**

- Minimum technically qualified team strength of the organization should be 15 nos with the min. qualification of BE/B. Tech in Electrical Engineering/ Electrical and Electronics Engineering. Minimum strength of personnel passing eligibility criteria of team leader as defined above should be 3. Minimum strength of personnel passing eligibility criteria of protection engineer as defined above should be 10.
- Experience:
  - Minimum 7 years of experience in conducting protection audits or similar projects in the power sector.
  - The bidder must have successfully completed at least:

Two (2) protection system audit project for 132 k V and above substations since 2019 for generation/ transmission utility.

- Financial Stability:
- Average annual turnover of (as per contract) over the last 3 financial years.

- Positive net worth and a valid solvency certificate.
- c) Technical proposals shall contain the complete details of experience of the Bidder along with a detailed description about the methodology and work plan for performing the assignment along with timelines.

- **Technical Evaluation Criteria**

Mode of Tendering – QCBS.

The technical evaluation will be based on the bidder's expertise, approach, and resources.

| Criteria                   | Description                                                                                                                                                                                              | Weightage    |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Experience</b>          | <b>Number of protection audit projects for 132 k V and above S/s each completed since 2019</b>                                                                                                           | <b>30</b>    |
|                            | Greater than or equal to 4 completed projects                                                                                                                                                            | 30           |
|                            | completed 3 projects                                                                                                                                                                                     | 20           |
|                            | completed 2 projects                                                                                                                                                                                     | 10           |
|                            | Below 2 projects                                                                                                                                                                                         | Not eligible |
|                            | <b>Scale of protection audit for 132 k V and above S/s each completed since 2019</b>                                                                                                                     | <b>20</b>    |
|                            | Greater than or equal to 20 number of bays and major elements (ICT/ Reactor/ Bus/Generator) for particular station having maximum number of bays and major elements covered in protection audit project. | 20           |
|                            | Less than 20 numbers of bays and major elements (ICT/ Reactor/ Bus/ Generator) for particular station having maximum number of bays and major elements covered in protection audit project.              | 10           |
|                            | <b>Nature of protection audit for 132 k V and above S/s each completed since 2019</b>                                                                                                                    | <b>20</b>    |
|                            | Protection audit had been done for greater than or equal to 3 numbers of generating stations                                                                                                             | 20           |
|                            | Protection audit had been done for at least 1 number of generating station however less than 3 numbers of generating stations                                                                            | 10           |
|                            | Protection audit had not been done for any generating station                                                                                                                                            | 0            |
| <b>Technical Expertise</b> | <b>Experience of the project team</b>                                                                                                                                                                    | <b>30</b>    |
|                            | <b>Team Lead</b>                                                                                                                                                                                         | <b>20</b>    |
|                            | Experience as team lead in more than 4 no. of Protection audit projects of 132 k V and above S/s each.                                                                                                   | 20           |
|                            | Experience as team lead in less than or equal to 4 no. and at least 2 no. of Protection audit projects of 132 k V and above S/s each.                                                                    | 15           |
|                            | Experience as team lead in less than 2 no. of Protection audit projects of 132 k V and above S/s each.                                                                                                   | Not eligible |
|                            | <b>Protection Engineer</b>                                                                                                                                                                               | <b>10</b>    |

|  |                                                                                          |    |
|--|------------------------------------------------------------------------------------------|----|
|  | 7 years of experience in protection systems, protection audit etc for each member.       | 10 |
|  | 7 years of experience in protection systems, protection audit etc for at least 2 members | 5  |

- **Financial Evaluation Criteria**

The financial evaluation will be based on the total bid price (exclusive of GST)

- **Final Selection**

The final selection will be based on the combined score from the technical and financial evaluations.

Weightage

- o Technical Score: 70%
- o Financial Score: 30%

The bidder with the highest combined score will be awarded the contract.

- The bidders, who have participated in any of the tender of Central/State Govt. Departments Bids earlier during last 1 year and evaluated as L-1 bidder, either refused to execute the job on their quoted bids or whose bids were unworkable for minimum wages or any other statutory compliances, will be made disqualified in the Technical Evaluation of this tender without assigning any further reason. The past 1-year period will be reckoned from the due date of this tender to the due date of previous tenders

### **Documents to be furnished as proof of eligibility**

- In support of work experience, bidder shall submit the copy of Supply Orders/ Work Orders/Letter of award with BOQ along with copy of successful completion certificate and performance certificate issued containing the name/designation and contact details of the officials issuing the performance certificate. The performance certificate should clearly indicate period of contract and actual executed value of the contract.
- In case of experience certificate produced by the Contractors for having executed works for private organizations, TDS certificates shall also be produced along with experience certificate.
- Valid registration certificates and statutory clearances (if any) must be submitted.
- Self-Declaration shall be submitted stating that bidder should not be the OEM or its authorized representative of any protection system equipment.
- Self-Declaration shall be submitted stating that bidders should not have Joint venture with OEM of any protection system equipment.
- Auditor certificate regarding average annual turnover of at least INR 140 lakhs over the last 3 financial years.
- Positive net worth and a valid solvency certificate.
- List of documents given below for designated team signed by the proposed professional staff attested by current employer must be submitted by bidder-
  - Identity Proof (PAN Card/ Voter ID)
  - Proof of Qualification (Degree / Mark Sheet)
  - Proof of Experience (Experience Certificate by employer / client)
  - CV
- Any other document as required as per QR

**F.NO. 12(16)-REV/FLOOD/2024**  
**GOVERNMENT OF TRIPURA**  
**(RELIEF REHABILITATION AND DISASTER MANAGEMENT DEPARTMENT)**

**Dated, Agartala, the 27<sup>th</sup> August, 2024**

**M E M O R A N D U M**

The State of Tripura has witnessed unprecedented floods, causing loss of human lives and extensive damage, destruction and loss of both public and public infrastructures & properties. As on date, as much as 31 persons have died, 2 are injured and 1 is reportedly missing. The preliminary estimates suggest a loss to the tune of Rs. 15,000 crores due to damages on account of recent floods.

2. Considering the gravity of the situation, leading to loss of human lives and damage to public and private properties, the State Executive Committee (SEC) of Tripura Disaster Management Authority (TDMA) under the chairmanship of the Chief Secretary in its meeting held on 24<sup>th</sup> August, 2024, has decided to declare the entire state as **“Natural Calamity Affected Area”**.

3. Accordingly, whole State of Tripura is notified as **“Natural Calamity Affected Area”** due to recent unprecedented floods.



**(Brijesh Pandey)**

Secretary  
Relief, Rehabilitation and Disaster  
Management  
Government of Tripura

Copy to:

1. The Secretary to His Excellency the Governor of Tripura for kind information of the Hon'ble Governor.
2. The Secretary to Hon'ble Chief Minister for kind information of the Hon'ble Chief Minister.
3. All Ministers, Government of Tripura for kind information
4. The AG, Tripura for kind information
5. All Secretaries/Special Secretaries for information
6. All DM & Collectors for information

7. The Manager, Tripura Government Press for publication of same in extraordinary gazette notification.



भारत सरकार Government of India

विद्युत मंत्रालय Ministry of Power

उत्तर पूर्वी क्षेत्रीय विद्युत समिति

North Eastern Regional Power Committee

एन ई आर पी सी कॉम्प्लेक्स, डोंग पारमाओ, लापालाङ, शिल्लोंग-७९३००६, मेघालय

NERPC Complex, Dong Parmaw, Lapalang, Shillong - 793006, Meghalaya

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No.: No. NERPC/SE(O)/OCC/2024/ 3642-3649

January 09, 2025

**To**

**As per list attached**

**Sub: Formation of NERPC sub-group to visit the vulnerable towers of the 400kV Palatana-Silchar DC TL.**

Sir/Madam,

In the 218<sup>th</sup> Operation Coordination Sub-Committee (OCC) Meeting (agenda C.5), NETC had informed that due to heavy rain in Tripura massive landslides had occurred which had left some towers of the 400kV Palatana-Silchar DC line vulnerable and prone to collapse. It was noted in the meeting that immediate action needed to be taken to restore the condition of the affected towers. The forum decided to form a sub-group to visit and inspect the vulnerable tower locations and suggest remedial measures. Subsequently nominations were invited from NERLDC, Powergrid, Assam, Meghalaya, Tripura and IIT Guwahati for formation of the sub-group. Based on the nominations received, the sub-group is hereby formed with the following membership –

| SL. no. | Organization | Member                                         |
|---------|--------------|------------------------------------------------|
| 1.      | NERPC        | Sh. Vikash Shankar, Asst. Director             |
| 2.      | NERLDC       | Sh. Sunil Singha, Manager                      |
| 3.      | PowerGrid    | Sh. Arindam Dam, DGM                           |
| 4.      | AEGCL        | Sh. Asif Iqbal Jahan Mazumder, DGM             |
| 5.      | MePTCL       | Sh. G V Diengdoh, EE (T&T)                     |
| 6.      | TSECL        | Sh. Dulal Chakraborty, DGM,                    |
| 7.      | IIT Guwahati | Prof. Vivek Padmanabha, Civil Engg. Department |

The sub-group will visit the affected towers (loc. No. 200, 205, 209, 211, 217, 222 357, 364, 385 and 430) on 20.01.2025 (Monday) and 21.01.2025 (Tuesday).  
NETC is requested to provide the necessary travel and lodging arrangements.

भवदीय / Yours faithfully,



(ए. दे/ A. De)

उप निदेशक / Dy. Director

**Distribution List:**

1. Managing Director, AEGCL, Bijuli Bhawan, Guwahati – 781 001 1.
2. Director (Transmission), MePTCL, Lumjingshai, Short Round Road, Shillong – 793 001
3. Director (Tech.), TSECL, Banamalipur, Agartala -799 001.
4. ED, PGCIL/NERTS, Dongtiah-Lower Nongrah, Lapalang, Shillong -793 006
5. ED, NERLDC, Dongtiah, Lower Nongrah, Lapalang, Shillong -793 006
6. CGM, AEGCL, Bijuli Bhawan, Guwahati – 781001
7. Director, NETC, 2C, 3rdFloor, D21Corporate Park, DMRC Building Sector 21, Dwarka, Delhi-77.
8. Prof. Vivek Padmanabha, Civil Engg. Department, IIT Guwahati -781039



(ए. दे/ A. De)

उप निदेशक / Dy. Director

**NERPC sub-group Report on the vulnerable tower locations of 400 kV Palatana-Silchar transmission line.**

**A. Background**

The state of Tripura witnessed very heavy rainfall and unprecedented floods in the month of August 2024, causing loss of human lives and extensive damage, destruction and loss of both public and public infrastructure & properties and subsequently the state of Tripura was declared as "Natural Calamity Affected Area" vide notification dated 27<sup>th</sup> August 2024 by the Relief, Rehabilitation and Disaster Management, Government of Tripura. A copy of the notification & relevant newspaper clippings is placed as Annexure-1 for reference.

**218<sup>th</sup> OCC Meeting Held on 12<sup>th</sup> September 2024**

NETC submitted an agenda (item no. C.5 – copy enclosed at Annexure-2 for reference) in the 218<sup>th</sup> OCC meeting held on 12<sup>th</sup> September 2024 in Guwahati informing about the status of the damages caused and also requesting that NETC being a single project organization with limited resources, will find it difficult to bear such major financial implications for these protection works and tower shifting necessitated due to Force Majeure and proposed that the financial implications incurred on this account may be considered. The agenda was deliberated by the sub-committee and the deliberation of the sub-committee is presented hereunder;

*"NETC informed the forum that due to heavy rain in Tripura massive landslides had occurred which left some towers of the line vulnerable and prone to collapse. NETC also informed the forum that immediate action needed to be taken to restore the condition of the affected tower. NETC further requested that a sub-group under aegis of NERPC may be formed so that the same might visit the affected locations and suggest the immediate and long-term solution to the problem. NERTS suggested that on the basis of study and suggestion of the sub-group, some guidelines may be framed for future references.*

*After detailed deliberation, the forum opined to form a sub-group consisting of representatives of CEA, NERPC, NERLDC, Powergrid, IIT Guwahati, Assam, Meghalaya and Tripura."*

*V. K.*

*सुनील बिहारी*

*[Signature]*

*[Signature]*

*[Signature]*

*[Signature]*

NERPC order No.: No. NERPC/SE(O)/OCC/2024/3642-3649 dated 09<sup>th</sup> January 2025

NERPC vide order No.: No. NERPC/SE(O)/OCC/2024/3642-3649 dated 09<sup>th</sup> January 2025 (copy enclosed as Annexure-3 for reference) informed the formation of NERPC sub-group to visit the vulnerable towers of the 400 kV Palatana-Silchar TL with the following members to visit and inspect the vulnerable tower locations and suggest remedial measures. The sub-group visit was scheduled for 20<sup>th</sup> January 2025 & 21<sup>st</sup> January 2025.

| Sl. No | Name                          | Designation                  | Organization |
|--------|-------------------------------|------------------------------|--------------|
| 1.     | Sh. Vikash Shankar            | Asst. Director               | NERPC        |
| 2.     | Sh. Sunil Singha              | Manager                      | NERLDC       |
| 3.     | Sh. Arindam Dam               | DGM                          | PowerGrid    |
| 4.     | Sh. Asif Iqbal Jahan Mazumder | DGM                          | AEGCL        |
| 5.     | Sh. G V Diengdoh, EE (T&T)    | EE (T&T)                     | MePTCL       |
| 6.     | Sh. Dulal Chakraborty.        | DGM                          | TSECL        |
| 7.     | Prof. Vivek Padmanabha.       | Prof. Civil Engg. Department | IIT Guwahati |

It is to mention that the nominated members from MePTCL (Sl no. 5 above) could not join the sub-group during the visit. Further, the representative from TSECL (Sl No. 6 above) requested NERPC to consider the nomination of Sh. Bathe Jamatia, Manager (Civil) in place of himself and the same was concurred by NERPC.

B. Sub-group visit on 20<sup>th</sup> & 21<sup>st</sup> January 2025 (photographs of the sub-group visit is enclosed as Annexure-4).

Day-1 (20<sup>th</sup> January 2025)

The committee visited and inspected 6 tower locations on 20<sup>th</sup> January 2025 (tower nos. 200, 205, 209, 211, 217 & 222).

Day-2 (21<sup>st</sup> January 2025)

*Vikash*

*Subir*

*ti*

*Amir*

*Ch. Lu*

*N. S.*

The committee visited and inspected 6 tower locations on 21<sup>st</sup> January 2025 (tower nos. 137, 182, 357, 385, 393 & 430).

**Sub-group methodology for inspection & recommendation.**

The sub-group while inspecting the 12 nos. tower locations considered the profile of the soil, topography of the area, proximity of the tower legs to edge of slope, extent of soil movement and slope failure caused by the extensive rain that occurred in Aug'24, vegetation in the proximity of tower legs etc... and recommended the following measures:

Vik

John Pien

to

along -

Cal

Nm

Sub-group recommendations:

|   | Date of Visit/ Day | Tower No | Observation & Recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---|--------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | 20.01.2025         | 200      | <p><b>Observation:</b></p> <ul style="list-style-type: none"><li>The tower is located on a hilltop connecting forward and backward spans, both of which cross NH-08. The C leg is situated just 8 meters horizontally from the hillock edge, followed by a gradient slope of height approximately 4 meters, and then a steep slope of 18 meters height from NH-08. The slope appears to consist of loose soil with low shear strength, indicating a risk of landslides and further deterioration of the existing slope.</li></ul> <p><b>Recommendation:</b></p> <ul style="list-style-type: none"><li>It is recommended to construct an 8-meter high RRM (Random Rubble Masonry) protection wall along the NH side to protect the existing slope and soil erosion.</li><li>Further Based on the soil report, a platform for the construction of the 2<sup>nd</sup> RRM protection wall is proposed by step-cutting the soil slope along the edge of the hill and gradient sloped areas. The soil test report should be shared with Prof. Vivek Padmanabha by NETC.</li><li>The soil area after the RRM wall should be secured by covering it with geo net.</li></ul> |
| 2 | 20.01.2025         | 205      | <p><b>Observation:</b></p> <ul style="list-style-type: none"><li>The B leg is located just 7 meters horizontally from the hillock edge, with a slope of 11 meters height from NH-08.</li></ul> <p><b>Recommendation:</b></p> <ul style="list-style-type: none"><li>It is recommended to adopt a "wait and watch" approach without disturbing the existing soil conditions for the time being.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 3 | 20.01.2025         | 209      | <p><b>Observation:</b></p> <ul style="list-style-type: none"><li>Heavy soil erosion and landslides have occurred on the downhill side of Leg C. The erosion started approximately 8 meters from Leg C. Temporary protection using bamboo palisading and soil-filled</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

Vivek

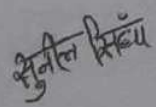
Pradeep  
Page 4 of 10

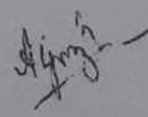
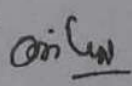
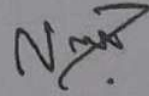
Shirish

Chiranjeev

Munish

|   |            |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---|------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |            |     | <p>gunny bags has been provided in 9 steps along the affected areas.</p> <p><b>Recommendation:</b></p> <ul style="list-style-type: none"> <li>While the temporary measure may help stabilize the soil to some extent, however the tower is not fully stable. Considering the condition of loose soil and low bearing strength It is recommended to construct a 3-step Random Rubble Masonry (RRM) wall along with geo textile reinforcement to provide long-term stability and protection.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 4 | 20.01.2025 | 211 | <p><b>Observation:</b></p> <ul style="list-style-type: none"> <li>Soil erosion and landslides have been observed near Legs A and D. Erosion has started approximately 9 meters from both legs. Runoff from the uphill side of the tower flows through a natural channel near Leg D, which has formed into a drain. Temporary protection using bamboo palisading and soil-filled gunny bags has been provided in 4 steps along the affected areas.</li> </ul> <p><b>Recommendation:</b></p> <ul style="list-style-type: none"> <li>The temporary measure may offer partial stabilization of the soil, the tower is not fully stable. It is recommended to construct a 3-step Random Rubble Masonry (RRM) wall to ensure long-term stability and protection.</li> <li>Additionally, two independent stone-pitched / brickbat / cement grout drainage systems should be constructed on both sides of the RRM walls to facilitate natural drainage from the uphill side.</li> </ul>     |
| 5 | 20.01.2025 | 217 | <p><b>Observation:</b></p> <ul style="list-style-type: none"> <li>The tower is approximately 25 meters horizontally from NH-08, with a 20-meter vertical difference between the tower and NH.</li> <li>The tower foundation has been compromised due to cracking and sinking of the adjacent National Highway (NH-08) and the uphill slope near the tower. This has led to severe structural issues, including bending in some of the tower's bracing members and legs.</li> </ul> <p><b>Recommendation:</b></p> <ul style="list-style-type: none"> <li>A feasibility study should be conducted to assess the possibility of shifting the tower, as the soil in the area is highly susceptible to further movement. During the survey, options should be explored, including replacing the current tower with a suitable monopole structure or relocating the tower at position 216 to a specialized tower and directly connecting it to tower 218, bypassing tower 217.</li> </ul> |

|   |            |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---|------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |            |     | <ul style="list-style-type: none"> <li>• A Random Rubble Masonry (RRM) wall with an integrated drain should be immediately constructed on the uphill side (towards highway) to prevent the slope failure and redirect the drain water from accumulation the tower foundation area and further avoid sinking.</li> <li>• A profile study of the downstream side of the tower should also be conducted.</li> </ul>                                                                                                                                                                                                            |
| 6 | 20.01.2025 | 222 | <p><b>Observation:</b></p> <ul style="list-style-type: none"> <li>• The tower is located adjacent to NH-08, with Legs C and D facing NH. These legs are situated just 8 and 9 meters horizontally from the hillock edge, followed by a steep slope of 15 meters in height from NH-08. The tower connects the forward span (loc 222-223) and backward span (loc 222-221), both of which cross NH-08.</li> </ul> <p><b>Recommendation:</b></p> <ul style="list-style-type: none"> <li>• It is recommended to adopt a "wait and watch" approach without disturbing the existing soil conditions for the time being.</li> </ul> |
| 7 | 21.01.2025 | 137 | <p><b>Observation:</b></p> <ul style="list-style-type: none"> <li>• The landslide occurred approximately 10 meters from both Leg A and Leg D. A permanent protection wall was constructed at Leg D during the construction phase. Temporary bamboo palisading has been provided in five steps, and the tower is currently stable.</li> </ul> <p><b>Recommendation:</b></p> <ul style="list-style-type: none"> <li>• It is recommended to adopt a "wait and watch" approach without disturbing the existing soil conditions for the time being. Proper drainage for runoff water should also be ensured.</li> </ul>          |
| 8 | 21.01.2025 | 182 | <p><b>Observation:</b></p> <ul style="list-style-type: none"> <li>• Soil erosion and landslides have been observed near Legs A and B. Erosion has started approximately 10 meters from both legs, with a 60-degree slope and a height of 25 meters from the foothill level. Temporary bamboo palisading has been provided in 3 steps, and the tower remains stable.</li> </ul> <p><b>Recommendation:</b></p> <ul style="list-style-type: none"> <li>• It is recommended to adopt a "wait and watch" approach without disturbing the existing soil conditions for the time being.</li> </ul>                                 |

|    |            |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----|------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |            |     | <p><b>Observation:</b></p> <ul style="list-style-type: none"> <li>The tower is located on a hillock, with an uphill slope on the A-D leg side, while the B-C and C-D leg sides are situated on a downhill terrain. Soil erosion and landslides have been observed near Leg C. Temporary protective measures consisting of bamboo palisading and soil-filled gunny bags have been provided in five steps along the affected areas.</li> </ul> <p><b>Recommendation:</b></p> <ul style="list-style-type: none"> <li>While the temporary measure may provide partial stabilization, the tower is not fully stable. It is recommended to construct a 2-step Random Rubble Masonry (RRM) wall, along with a dressing platform, to ensure long-term stability with a geotextile layer at the end of each step which would further offer protection of the tower foundation.</li> <li>Additionally, stone-pitched or brickbat drainage systems, or a cement grout drainage system, should be constructed to divert water away from the tower and prevent further erosion.</li> </ul> |
| 9  | 21.01.2025 | 357 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 10 | 21.01.2025 | 385 | <p><b>Observation:</b></p> <ul style="list-style-type: none"> <li>Soil erosion and landslides have been observed on the downhill side of Leg D at a distance of 5 meters, and soil erosion has occurred at a distance of 12 meters from Leg C. Temporary protective measures consisting of bamboo palisading and soil-filled gunny bags have been provided in 5 steps along the affected areas.</li> </ul> <p><b>Recommendation:</b></p> <p>While the temporary measure may help stabilize the soil to some extent, the tower is not yet fully stable.</p> <ul style="list-style-type: none"> <li>It is recommended to construct a 1-step Random Rubble Masonry (RRM) wall, along with a dressing platform, and to backfill the area with compacted soil. The slope near Leg D should be properly maintained.</li> <li>Additionally, an additional RRM wall should be constructed along Leg C to provide further stabilization.</li> </ul>                                                                                                                                    |

*Vikram*

*27 Jan 2024*

*1/2*

*Shrey*

*Sanjay*

*Niraj*

|    |            |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----|------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |            |     | <ul style="list-style-type: none"> <li>Stone-pitched or brickbat drains, or a cement grout drainage system, should be installed to effectively divert water away from the tower and prevent further erosion.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 11 | 21.01.2025 | 393 | <p><b>Observation:</b></p> <ul style="list-style-type: none"> <li>Soil erosion and landslides have been noticed near Leg A. The A leg is situated just 7 meters horizontally from the hillock edge, followed by a steep slope of 18 meters height from ground level. Temporary protection using bamboo palisading and soil-filled gunny bags has been provided in three steps along the affected areas.</li> </ul> <p><b>Recommendation:</b></p> <ul style="list-style-type: none"> <li>While the temporary measure may offer partial stabilization of the soil, the tower is not yet fully stable. It is recommended to construct a 1-step RRM wall, along with a dressing platform.</li> <li>Further the soil area after the Random Rubble Masonry (RRM) wall should be secured by covering it with geo net.</li> </ul>                                                                                                                         |
| 12 | 21.01.2025 | 430 | <ul style="list-style-type: none"> <li><b>Observation:</b> Soil erosion and landslides have been noticed near Legs B and C. Erosion started at a distance of 9 meters from Leg C and 14 meters from Leg B. Temporary protective measures consisting of bamboo palisading and soil-filled gunny bags have been provided in 9 steps along the affected areas.</li> </ul> <p><b>Recommendation:</b></p> <p>While the temporary measure may provide partial stabilization, the tower is not yet fully secured. It is recommended to construct a 2-step Random Rubble Masonry (RRM) wall, along with a dressing platform.</p> <p>Additionally, the wall should be reinforced with geo grid in the exposed areas to ensure long-term stability and protection.</p> <p>Further Stone-pitched or brickbat drains, or a cement grout drainage system, should be installed to effectively divert water away from the tower and prevent further erosion.</p> |

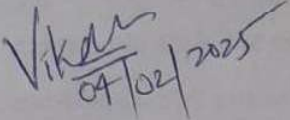
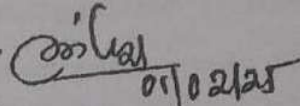
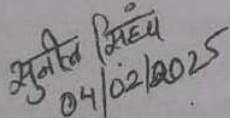
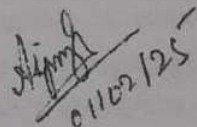
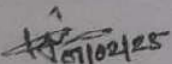
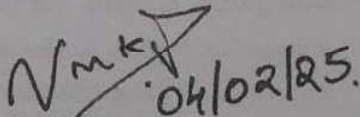
Other observations & recommendations of the sub-group.

NETC also informed the sub-group that a total of 25 tower locations have been affected due to floods & landslides caused due to the heavy rainfall in the month of August 2024 (photographs & profile details enclosed as Annexure-S), however, due to paucity of time, the other 13 affected locations could not be visited by the sub-group. NETC also informed the sub-group members that NETC has undertaken immediate temporary protection measures at 14 affected tower locations and is continuously monitoring the affected locations through extensive patrolling routines. The sub-group appreciated the NETC for its prompt and dedicated action to provide immediate protection measures to the affected towers.

The sub-group after assessing the topography / terrain of the Palatana-Silchar transmission line, general soil characteristics of Tripura and the monsoon rains in the state, also viewed / recommended the following:

1. The sub-group, after assessing the mentioned locations, is of the view that considering the geographical terrain and soil profile of the Palatana-Silchar section in Tripura, similar landslide issues may occur at other tower locations in the future. Given the importance of the 400 kV Palatana-Silchar transmission line for the stability of the entire northeastern grid, the sub-group recommends that, during the monsoon season, if such situations arise, an immediate site assessment by an expert consultant should be conducted. Necessary follow-up remedial measures should then be implemented promptly, with prior intimation to NERPC, to prevent any disruption to the power network.
2. Sub-group advised NETC to continuously monitor the conditions of vulnerable towers in the area adopt a general approach of stabilizing the slopes around the affected towers with geo-mats or geo textiles and ensure vegetation on the slopes.
3. The sub-group emphasized the critical role of the 400 kV Silchar-Palatana transmission line in evacuating power from the Palatana generation and highlighted the vulnerability of its towers, especially during the upcoming monsoon season. Given the risk of landslides in the hilly terrain, any

failure of these towers could severely impact power evacuation and grid stability. To mitigate this risk, the sub-group recommended continuous monitoring of vulnerable towers by NETC and immediate site assessments by expert consultants if instability is detected. Necessary measures should be implemented promptly to ensure the secure evacuation of Palatana generation and prevent major grid disturbance.

|                                                                                                                                                                                            |                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><b>Name: Sh. Vikash Shankar</b><br><b>Designation: Asst. Director.</b><br><b>Organization: NERPC</b>  | <br><b>Name: Sh. Arindam Dam</b><br><b>Designation: DGM</b><br><b>Organization: Powergrid.</b>                                                                       |
| <br><b>Name: Sh. Sunil Singha</b><br><b>Designation: Manager.</b><br><b>Organization: NERLDC</b>          | <br><b>Name: Sh. Asif Iqbal Jahan Mazumder</b><br><b>Designation: DGM</b><br><b>Organization: AEGCL</b>                                                            |
| <br><b>Name: Sh. Batho Jamatia.</b><br><b>Designation: Manager, Civil</b><br><b>Organization: TSECL</b> | <br><b>Name: Prof. Vivek Padmanabha, PhD</b><br><b>Designation: Asst. Professor, Civil</b><br><b>Engg. Department</b><br><b>Organization: IIT Guwahati, INDIA.</b> |

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 218<sup>th</sup> 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.



**G A P P & ASSOCIATES**  
**Chartered Accountants**

Annexure-4.10a

Head Office Address :

1<sup>st</sup> Floor, Above M/S Jain Electricals,  
Fire Brigade, Shillong – 793003.  
Phone : 7005150251 / 97744-86431  
☎ : 0364 - 3560399  
E-mail: [cagauravjain.shg@gmail.com](mailto:cagauravjain.shg@gmail.com)

**AUDITORS' REPORT**

To

North Eastern Regional Power Committee (NERPC)

NERPC Complex, Dong Parmaw,

Lapalang, Shillong-793006

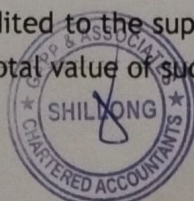
Meghalaya

We have audited the accompanying Balance Sheet of **North Eastern Regional Power Committee (NERPC) Secretariat Establishment Fund: NERPC Complex :: Dong Parmaw Lapalang :: Shillong-793006 :: Meghalaya** as on **31<sup>st</sup> March 2024** and the Income and Expenditure Account and Receipts and Payments Account for the year ended as on the above date. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Standards on Auditing issued by Institute of Chartered Accountants of India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

We report as follows:

- (a) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.
- (b) The Balance Sheet referred to in this report is in agreement with the books of accounts subject to the following observations:
  - (i) Section 51 of the CGST Act 2017 provides for deduction of tax by the Government Agencies (Deductor) or any other person to be notified in this regard, from the payment made or credited to the supplier (Deductee) of taxable goods or services or both, where the total value of such supply under a contract, exceeds



BRANCH OFFICES : GUWAHATI | SILIGURI | ITANAGAR



**G A P P & ASSOCIATES**  
**Chartered Accountants**

Head Office Address :

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Rs.2,50,000/- (Rupees Two Lakh and Fifty Thousand). However, the organization has failed to deduct GST(TDS) on vendor payments exceeding Rs.2,50,000/-. The failure on the part of the organization to deduct TDS under section 51 of the CGST Act, 2017 will attract penal action under section 51(4), 51(6) and 122(1) of the CGST Act,2017.

(ii) The organisation did not uniformly comply with the statutory requirements of TDS under the Income Tax Act, 1961 as they failed to deduct tax from vendor payments which were liable for TDS deduction which is neither a statutory mandate nor any Exemption Certificate u/s 197 was forthcoming.

(iii) The organisation has not maintained fixed assets register and also physical verification of fixed assets has not been carried out. Proper records showing full particulars, including Quantitative details, Asset ID and situation of its fixed assets should be maintained and they should also have a regular programme of physical verification of its fixed assets.

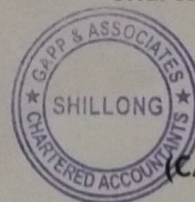
(c) In our opinion, and to the best of our information and according to the explanations given to us, the said accounts, give a true and fair view in conformity with the accounting principles generally accepted in India.

- (i) In the case of the Balance Sheet of the state of affairs of the organisation as on **31<sup>st</sup> March 2024**.
- (ii) In the case of the Income and Expenditure Account of the Excess of Income over Expenditure for the year ended on that date.
- (iii) In the case of the Receipts and Payments Account of the receipts and payments during the year ended on that date.

Dated, Shillong  
18<sup>th</sup> November 2024

UDIN : 24301907BKAILT9465

For GAPP & Associates  
Chartered Accountants



FRN: 327572E

(CA. GAURAV JAIN)  
Partner

Membership No. 301907



**GAPP & ASSOCIATES**  
**Chartered Accountants**

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E-mail: cagauravjain.shg@gmail.com

**NERPC SECRETERIAT ESTABLISHMENT FUND**  
**NERPC COMPLEX :: DONG PARMAW :: LAPALANG :: SHILLONG-793006**  
**Receipt & Payments Account for the period from 1st July 2023 to 31st Mar 2024**

| RECEIPT                                                                      | AMOUNT             | PAYMENTS                                                                                                                                                            | AMOUNT                                                                                    |
|------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <b>Opening Balance:</b><br>Cash at Bank with SBI A/C<br>No:00000042203027645 | -                  | <b>Funds refunded:</b><br>PAO, CEA                                                                                                                                  | 47,10,712 ✓                                                                               |
| <b>Yearly Contribution from Members</b>                                      | 2,50,44,266        | <b>Expenses:</b><br>Office Expenses<br>Travelling and Conveyance<br>Minor Works<br>Fuel and Lubricants<br>Professional Services<br>Medical Expenses<br>Bank Charges | 34,40,157 ✓<br>16,08,198 ✓<br>11,54,364 ✓<br>2,23,280 ✓<br>3,332 ✓<br>2,80,028 ✓<br>177 ✓ |
|                                                                              |                    | <b>Closing Balance</b><br>Cash at Bank with SBI A/C<br>No:00000042203027645                                                                                         | 1,36,24,018 ✓                                                                             |
| <b>TOTAL RUPEES</b>                                                          | <b>2,50,44,266</b> | <b>TOTAL RUPEES</b>                                                                                                                                                 | <b>2,50,44,266</b>                                                                        |

In terms of our report on even date attached.

Date: 18.11.2024  
Place: Shillong

UDIN: 24301907BKAILT9465  
FOR GAPP & ASSOCIATES  
Chartered Accountants



FRN: 327572E

**GAURAV KUMAR JAIN**  
(Partner)

Membership No. 301907



**AUDITORS' REPORT**

To

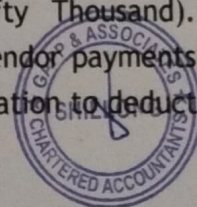
North Eastern Regional Power Committee (NERPC)  
NERPC Complex, Dong Parmaw,  
Lapalang, Shillong-793006  
Meghalaya

We have audited the accompanying Balance Sheet of North Eastern Regional Power Committee (NERPC) Secretariat Establishment Fund: NERPC Complex :: Dong Parmaw Lapalang :: Shillong-793006 :: Meghalaya as on 31<sup>st</sup> March 2025 and the Income and Expenditure Account and Receipts and Payments Account for the year ended as on the above date. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Standards on Auditing issued by Institute of Chartered Accountants of India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

We report as follows:

- (a) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.
- (b) The Balance Sheet referred to in this report is in agreement with the books of accounts subject to the following observations:
  - (i) Section 51 of the CGST Act 2017 provides for deduction of tax by the Government Agencies (Deductor) or any other person to be notified in this regard, from the payment made or credited to the supplier (Deductee) of taxable goods or services or both, where the total value of such supply under a contract, exceeds Rs.2,50,000/- (Rupees Two Lakh and Fifty Thousand). However, the organization has failed to deduct GST(TDS) on vendor payments exceeding Rs.2,50,000/-. The failure on the part of the organization to deduct





**G A P P & ASSOCIATES**  
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TDS under section 51 of the CGST Act, 2017 will attract penal action under section 51(4), 51(6) and 122(1) of the CGST Act, 2017.

(ii) The organisation did not uniformly comply with the statutory requirements of TDS under the Income Tax Act, 1961 as they failed to deduct tax from vendor payments which were liable for TDS deduction which is neither a statutory mandate nor any Exemption Certificate u/s 197 was forthcoming.

(iii) The organisation has not maintained fixed assets register and also physical verification of fixed assets has not been carried out. Proper records showing full particulars, including Quantitative details, Asset ID and situation of its fixed assets should be maintained and they should also have a regular programme of physical verification of its fixed assets.

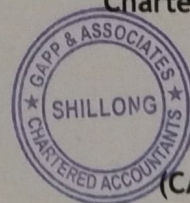
(c) In our opinion, and to the best of our information and according to the explanations given to us, the said accounts, give a true and fair view in conformity with the accounting principles generally accepted in India.

- (i) In the case of the Balance Sheet of the state of affairs of the organisation as on **31<sup>st</sup> March 2025**.
- (ii) In the case of the Income and Expenditure Account of the Excess of Income over Expenditure for the year ended on that date.
- (iii) In the case of the Receipts and Payments Account of the receipts and payments during the year ended on that date.

Dated, Shillong  
11<sup>th</sup> April, 2025

UDIN : 25301907BMHWMG4958

For GAPP & Associates  
Chartered Accountants



FRN: 327572E

(CA. GAURAV JAIN)

Partner

Membership No. 301907



**G A P P & ASSOCIATES**  
**Chartered Accountants**

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**NERPC SECRETERIAT ESTABLISHMENT FUND**  
**NERPC COMPLEX :: DONG PARMAW :: LAPALANG :: SHILLONG-793006**  
**Balance Sheet as at 31st Mar 2025**

| LIABILITIES                               | AMOUNT             | ASSETS                                            | AMOUNT             |
|-------------------------------------------|--------------------|---------------------------------------------------|--------------------|
| <u><b>CAPITAL</b></u>                     |                    | <u><b>CURRENT ASSETS</b></u>                      |                    |
| Opening Balance                           | 1,36,24,018        | Cash at Bank with SBI A/C<br>No:00000042203027645 | 1,67,95,805        |
| Add: Excess of Income over<br>Expenditure | 31,71,787          |                                                   |                    |
| Closing Balance                           | 1,67,95,805        |                                                   |                    |
| <b>TOTAL RUPEES</b>                       | <b>1,67,95,805</b> | <b>TOTAL RUPEES</b>                               | <b>1,67,95,805</b> |

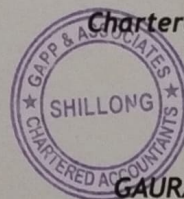
*In terms of our report on even date attached.*

**UDIN: 25301907BMHWMG4958**

**FOR GAPP & ASSOCIATES**

**Chartered Accountants**

**FRN: 327572E**



**GAURAV KUMAR JAIN**  
**(Partner)**

**Membership No. 301907**

**Date: 11.04.2025**

**Place: Shillong**



**GAPP & ASSOCIATES**  
**Chartered Accountants**

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**NERPC SECRETERIAT ESTABLISHMENT FUND**

**NERPC COMPLEX :: DONG PARMAW :: LAPALANG :: SHILLONG-793006**

**Receipt & Payment Account for the period from 1st July, 2023 to 30th Sept 2023**

| RECEIPT                                                               | AMOUNT (Rs.)       | PAYMENTS                                                             | AMOUNT (Rs.)       |
|-----------------------------------------------------------------------|--------------------|----------------------------------------------------------------------|--------------------|
| Opening Balance:<br>Cash at Bank with SBI A/C<br>No:00000042203027645 | -                  | Bank charges                                                         | 177 ✓              |
| Yearly Contribution from<br>Members                                   | 1,27,84,000 ✓      | Closing Balance<br>Cash at Bank with SBI A/C<br>No:00000042203027645 | 1,27,83,823 ✓      |
| <b>TOTAL RUPEES</b>                                                   | <b>1,27,84,000</b> | <b>TOTAL RUPEES</b>                                                  | <b>1,27,84,000</b> |

**AUDITORS REPORT**

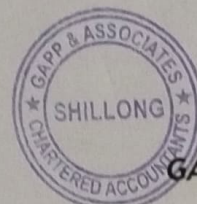
We have audited the above Receipt & Payment Account for the period 01.07.2023 to 30.09.2023 of NERPC SECRETERIAT ESTABLISHMENT FUND :: NERPC COMPLEX :: DONG PARMAW :: LAPALANG SHILLONG - 793006 with the books and documents as produced before us and have found the same in agreement thereto.

**UDIN : 24301907BKAILP4662**

**FOR GAPP & ASSOCIATES**

**Chartered Accountants**

**FRN: 327572E**



*Gaurav Kumar Jain*

**GAURAV KUMAR JAIN**

**(Partner)**

**Membership No. 301907**

**Date: 18.11.2024**

**Place: Shillong**



**G A P P & ASSOCIATES**  
**Chartered Accountants**

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**NERPC SECRETERIAT ESTABLISHMENT FUND**

**NERPC COMPLEX :: DONG PARMAW :: LAPALANG :: SHILLONG-793006**

**Receipt & Payments Account for the period from 1st Oct, 2023 to 31st Dec 2023**

| RECEIPT                                                                      | AMOUNT             | PAYMENTS                                                                                                                    | AMOUNT                                                  |
|------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| <b>Opening Balance:</b><br>Cash at Bank with SBI A/C<br>No:00000042203027645 | 1,27,83,823        | <b>Funds refunded:</b><br>PAO, CEA                                                                                          | 42,34,040                                               |
| Yearly Contribution from<br>Members                                          | 92,52,266          | <b>Expenses :</b><br>Office Expenses<br>Travelling and Conveyance<br>Minor Works<br>Fuel and Lubricants<br>Medical Expenses | 12,56,430<br>9,91,432<br>4,86,539<br>1,80,868<br>51,187 |
|                                                                              |                    | <b>Closing Balance</b><br>Cash at Bank with SBI A/C<br>No:00000042203027645                                                 | 1,48,35,593                                             |
| <b>TOTAL RUPEES</b>                                                          | <b>2,20,36,089</b> | <b>TOTAL RUPEES</b>                                                                                                         | <b>2,20,36,089</b>                                      |

**AUDITORS REPORT**

We have audited the above Receipt & Payment Account for the period 01.10.2023 to 31.12.2023 of NERPC SECRETERIAT ESTABLISHMENT FUND :: NERPC COMPLEX :: DONG PARMAW :: LAPALANG SHILLONG - 793006 with the books and documents as produced before us and have found the same in agreement thereto.

**UDIN :24301907BKAILQ3793**

**FOR GAPP & ASSOCIATES**

**Chartered Accountants**

**FRN: 327572E**



**GAURAV KUMAR JAIN**

**(Partner)**

**Membership No. 301907**

**Date: 18.11.2024**

**Place: Shillong**



**GAPP & ASSOCIATES**  
**Chartered Accountants**

Head Office Address :

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E-mail: cagauravjain.shg@gmail.com

**NERPC SECRETERIAT ESTABLISHMENT FUND**

**NERPC COMPLEX :: DONG PARMAR :: LAPALANG :: SHILLONG-793006**

**RECEIPT AND PAYMENT ACCOUNT for the period from 1st Jan, 2024 to 31st Mar 2024**

| RECEIPT                                           | AMOUNT             | PAYMENTS                                          | AMOUNT             |
|---------------------------------------------------|--------------------|---------------------------------------------------|--------------------|
| Opening Balance:                                  |                    | Funds refunded:                                   |                    |
| Cash in Hand                                      | -                  | PAO, CEA                                          | 4,76,672           |
| Cash at Bank with SBI A/C<br>No:00000042203027645 | 1,48,35,593        |                                                   |                    |
| Yearly Contribution from<br>Members               | 30,08,000          | Expenses:                                         |                    |
|                                                   |                    | Office Expenses                                   | 21,83,366          |
|                                                   |                    | Travelling and conveyances                        | 6,16,766           |
|                                                   |                    | Minor work                                        | 6,67,825           |
|                                                   |                    | Fuel and Lubricants                               | 42,412             |
|                                                   |                    | Bank Charges                                      | 361                |
|                                                   |                    | Professional Services                             | 3,332              |
|                                                   |                    | Medical Expenses                                  | 2,28,841           |
|                                                   |                    | Closing Balance                                   |                    |
|                                                   |                    | Cash at Bank with SBI A/C<br>No:00000042203027645 | 1,36,24,018        |
| <b>TOTAL RUPEES</b>                               | <b>1,78,43,593</b> | <b>TOTAL RUPEES</b>                               | <b>1,78,43,593</b> |

**AUDITORS REPORT**

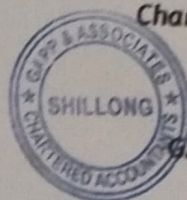
We have audited the above Receipt & Payment Account for the period 01.01.2024 to 31.03.2024 of NERPC SECRETERIAT ESTABLISHMENT FUND :: NERPC COMPLEX :: DONG PARMAR :: LAPALANG SHILLONG - 793006 with the books and documents as produced before us and have found the same in agreement thereto.

UDIN :24301907BKAILR2893

FOR GAPP & ASSOCIATES

Chartered Accountants

FRN: 327572E



*Gaurav Jain*  
**GAURAV KUMAR JAIN**

(Partner)

Membership No. 301907

Date: 18.11.2024

Place: Shillong



**G A P P & ASSOCIATES**  
**Chartered Accountants**

*final*

Head Office Address :

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**NERPC SECRETERIAT ESTABLISHMENT FUND**

**NERPC COMPLEX :: DONG PARMAW :: LAPALANG :: SHILLONG-793006**

**Receipt & Payments Account for the period from 1st April, 2024 to 30th June 2024**

| RECEIPT                                           | AMOUNT (Rs.)       | PAYMENTS                                          | AMOUNT (Rs.)       |
|---------------------------------------------------|--------------------|---------------------------------------------------|--------------------|
| Opening Balance:                                  |                    | Expenses:                                         |                    |
| Cash at Bank with SBI A/C<br>No:00000042203027645 | 1,36,24,018        | Office Expenses                                   | 18,49,239 ✓        |
|                                                   |                    | Travelling and Conveyance                         | 6,58,644 ✓         |
|                                                   |                    | Minor Works                                       | 26,72,410          |
| Yearly Contribution from Members                  | 5,35,000           | Fuel and Lubricants                               | 40,939             |
|                                                   |                    | Printing and Publication                          | 1,150              |
|                                                   |                    | Professional Services                             | 1,815              |
|                                                   |                    | Medical Expenses                                  | 19,492             |
|                                                   |                    | Closing Balance                                   |                    |
|                                                   |                    | Cash at Bank with SBI A/C<br>No:00000042203027645 | 89,15,329          |
| <b>TOTAL RUPEES</b>                               | <b>1,41,59,018</b> | <b>TOTAL RUPEES</b>                               | <b>1,41,59,018</b> |

**AUDITORS REPORT**

We have audited the above Receipt & Payment Account for the period 01.04.2024 to 30.06.2024 of NERPC SECRETERIAT ESTABLISHMENT FUND :: NERPC COMPLEX :: DONG PARMAW :: LAPALANG SHILLONG - 793006 with the books and documents as produced before us and have found the same in agreement thereto.

**UDIN:24301907BKAILU1851**

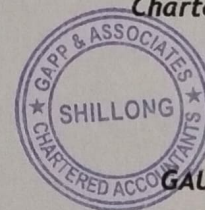
**FOR GAPP & ASSOCIATES**

**Chartered Accountants**

**FRN: 327572E**

Date: 18.11.2024

Place: Shillong



**GAURAV KUMAR JAIN**

**(Partner)**

**Membership No. 301907**



**G A P P & ASSOCIATES**  
**Chartered Accountants**

Head Office Address :  
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**NERPC SECRETERIAT ESTABLISHMENT FUND**

**NERPC COMPLEX :: DONG PARMAW :: LAPALANG :: SHILLONG-793006**

**Receipt & Payments Account for the period from 1st July, 2024 to 30th Sept 2024**

| RECEIPT                                                                      | AMOUNT (Rs.)       | PAYMENTS                                                                    | AMOUNT (Rs.)       |
|------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------|--------------------|
| <b>Opening Balance:</b><br>Cash at Bank with SBI A/C<br>No:00000042203027645 | 89,15,329          | <b>Expenses:</b><br>Office Expenses                                         | 32,49,393          |
|                                                                              |                    | Travelling and Conveyance                                                   | 2,88,267           |
|                                                                              |                    | Minor Works                                                                 | 64,655             |
| Yearly Contribution from Members                                             | 1,38,34,874        | Fuel and Lubricants                                                         | 1,18,153           |
|                                                                              |                    | Medical Expenses                                                            | 15,669             |
|                                                                              |                    | <b>Closing Balance</b><br>Cash at Bank with SBI A/C<br>No:00000042203027645 | 1,90,14,066        |
| <b>TOTAL RUPEES</b>                                                          | <b>2,27,50,203</b> | <b>TOTAL RUPEES</b>                                                         | <b>2,27,50,203</b> |

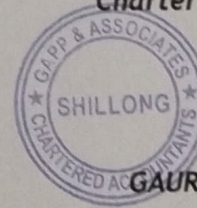
**AUDITORS REPORT**

We have audited the above Receipt & Payment Account for the period 01.07.2024 to 30.09.2024 of NERPC SECRETERIAT ESTABLISHMENT FUND :: NERPC COMPLEX :: DONG PARMAW :: LAPALANG SHILLONG - 793006 with the books and documents as produced before us and have found the same in agreement thereto.

Date: 18.11.2024

Place: Shillong

UDIN:24301907BKAILV3940  
FOR GAPP & ASSOCIATES  
Chartered Accountants



FRN: 327572E

GAURAV KUMAR JAIN  
(Partner)

Membership No. 301907



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**NERPC SECRETERIAT ESTABLISHMENT FUND**

**NERPC COMPLEX :: DONG PARMAW :: LAPALANG :: SHILLONG-793006**

**Receipt & Payments Account for the period from 1st October, 2024 to 31st December 2024**

| RECEIPT                                                                      | AMOUNT (Rs.)       | PAYMENTS                                                                    | AMOUNT (Rs.)       |
|------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------|--------------------|
| <b>Opening Balance:</b><br>Cash at Bank with SBI A/C<br>No:00000042203027645 | 1,90,14,066        | <b>Expenses:</b><br>Office Expenses                                         | 27,23,557          |
|                                                                              |                    | Travelling and Conveyance                                                   | 3,82,630           |
|                                                                              |                    | Minor Works                                                                 | 9,67,180           |
| Yearly Contribution from Members                                             | 42,10,000          | Fuel and Lubricants                                                         | 32,200             |
|                                                                              |                    | Medical Expenses                                                            | 98,082             |
|                                                                              |                    | <b>Closing Balance</b><br>Cash at Bank with SBI A/C<br>No:00000042203027645 | 1,90,20,417        |
| <b>TOTAL RUPEES</b>                                                          | <b>2,32,24,066</b> | <b>TOTAL RUPEES</b>                                                         | <b>2,32,24,066</b> |

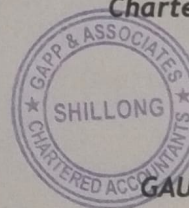
**AUDITORS REPORT**

We have audited the above Receipt & Payment Account for the period 01.10.2024 to 31.12.2024 of NERPC SECRETERIAT ESTABLISHMENT FUND :: NERPC COMPLEX :: DONG PARMAW :: LAPALANG SHILLONG - 793006 with the books and documents as produced before us and have found the same in agreement thereto.

Date: 11.04.2025

Place: Shillong

UDIN: 25301907BMHWME2684  
FOR GAPP & ASSOCIATES  
Chartered Accountants



FRN: 327572E

**GAURAV KUMAR JAIN**  
(Partner)

Membership No. 301907



**G A P P & ASSOCIATES**  
**Chartered Accountants**

Head Office Address :  
1<sup>st</sup> Floor, Above M/S Jain Electricals,  
Fire Brigade, Shillong – 793003.  
Phone : 7005150251 / 97744-86431  
: 0364 - 3560399  
E-mail: cagauravjain.shg@gmail.com

**NERPC SECRETERIAT ESTABLISHMENT FUND**

**NERPC COMPLEX :: DONG PARMAW :: LAPALANG :: SHILLONG-793006**

**Receipt & Payments Account for the period from 1st January, 2025 to 31st March 2025**

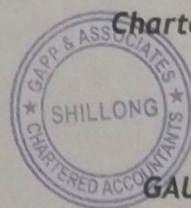
| RECEIPT                                                                      | AMOUNT (Rs.)       | PAYMENTS                                                                    | AMOUNT (Rs.)       |
|------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------|--------------------|
| <b>Opening Balance:</b><br>Cash at Bank with SBI A/C<br>No:00000042203027645 | 1,90,20,417        | <b>Expenses:</b><br>Office Expenses                                         | 25,09,334          |
|                                                                              |                    | Travelling and Conveyance                                                   | 3,48,563           |
|                                                                              |                    | Minor Works                                                                 | 18,62,423          |
| Yearly Contribution from<br>Members                                          | 26,05,000          | Fuel and Lubricants                                                         | 52,794             |
| Electricity Charges recovered<br>from Employees                              | 71,693             | Bank Charges                                                                | 649                |
|                                                                              |                    | Medical Expenses                                                            | 1,27,542           |
|                                                                              |                    | <b>Closing Balance</b><br>Cash at Bank with SBI A/C<br>No:00000042203027645 | 1,67,95,805        |
| <b>TOTAL RUPEES</b>                                                          | <b>2,16,97,110</b> | <b>TOTAL RUPEES</b>                                                         | <b>2,16,97,110</b> |

**AUDITORS REPORT**

We have audited the above Receipt & Payment Account for the period 01.01.2025 to 31.03.2025 of NERPC SECRETERIAT ESTABLISHMENT FUND :: NERPC COMPLEX :: DONG PARMAW :: LAPALANG SHILLONG - 793006 with the books and documents as produced before us and have found the same in agreement thereto.

Date: 11.04.2025  
Place: Shillong

**UDIN: 25301907BMHWMF8155**  
**FOR GAPP & ASSOCIATES**



**Chartered Accountants**  
**FRN: 327572E**

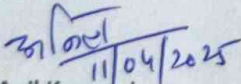
**GAURAV KUMAR JAIN**  
**(Partner)**

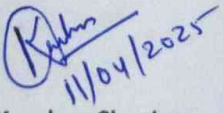
**Membership No. 301907**

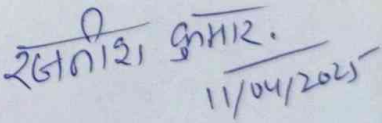
## Annexure-4.10b

Internal audit of the NERPC Establishment Fund for the FY 2023-24(from 1<sup>st</sup> July -2023 to 31<sup>st</sup> March -2024) and FY 2024-25(From 1<sup>st</sup> April -2024 to 30<sup>th</sup> September -2024). The consolidated receipt and payment account for the period from 1<sup>st</sup> July -2023 to 31<sup>st</sup> March -2024:

| Payment Received          | Amount (in Rs.) | Expenditure               | Amount (in Rs.) |
|---------------------------|-----------------|---------------------------|-----------------|
| Opening Balance           | -               | Funds Refunded: PAO, CEA  | 4710712         |
| Contribution from Members | 25044266        | Office Expenses           | 3439796         |
|                           |                 | Travelling and Conveyance | 1608198         |
|                           |                 | Minor Works               | 1154364         |
|                           |                 | Fuel and Lubricants       | 223280          |
|                           |                 | Professional Services     | 3332            |
|                           |                 | Medical Expenses          | 280028          |
|                           |                 | Printing and publication  | -               |
|                           |                 | Bank Charges              | 538             |
|                           |                 |                           |                 |
|                           |                 |                           |                 |
|                           |                 | Closing Balance           | 13624018        |
| <b>Total</b>              | <b>25044266</b> | <b>Total</b>              | <b>25044266</b> |

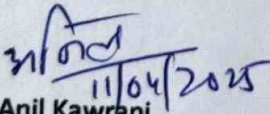
  
Anil Kawrani  
Director, NERPC

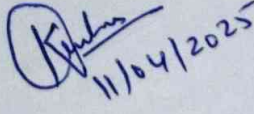
  
Kanchan Chauhan  
Deputy Director, NERPC

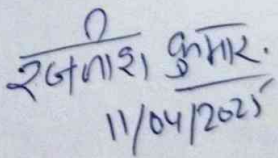
  
Rajnish Kumar  
Assistant Director, NERPC

Internal audit of the NERPC Establishment Fund for the FY 2023-24(from 1<sup>st</sup> July -2023 to 31<sup>st</sup> March -2024) and FY 2024-25(From 1<sup>st</sup> April -2024 to 30<sup>th</sup> September -2024). The consolidated receipt and payment account for the period from 1<sup>st</sup> April -2024 to 30<sup>th</sup> September -2024:

| Payment Received          | Amount (in Rs.) | Expenditure               | Amount (in Rs.) |
|---------------------------|-----------------|---------------------------|-----------------|
| Opening Balance           | 13624018        | Funds Refunded: PAO, CEA  | -               |
| Contribution from Members | 14369874        | Office Expenses           | 5098632         |
|                           |                 | Travelling and Conveyance | 946911          |
|                           |                 | Minor Works               | 2737065         |
|                           |                 | Fuel and Lubricants       | 159092          |
|                           |                 | Professional Services     | 1815            |
|                           |                 | Medical Expenses          | 35161           |
|                           |                 | Printing and publication  | 1150            |
|                           |                 | Bank Charges              | -               |
|                           |                 |                           |                 |
|                           |                 |                           |                 |
|                           |                 | Closing Balance           | 19014066        |
| <b>Total</b>              | <b>27993892</b> | <b>Total</b>              | <b>27993892</b> |

  
 Anil Kawrani  
 Director, NERPC

  
 Kanchan Chauhan  
 Deputy Director, NERPC

  
 Rajnish Kumar  
 Assistant Director, NERPC

Following are the observations from the internal audit of the NERPC Establishment Fund for the FY 2023-24(from 1<sup>st</sup> July -2023 to 31<sup>st</sup> March -2024) and FY 2024-25(From 1<sup>st</sup> April -2024 to 30<sup>th</sup> September -2024):

1. As per GFR Rule 208 (1)(iii) Details of the material so received should thereafter be entered in the appropriate stock register, preferably in an IT-based system.

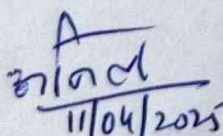
Further GFR-22, i.e. Register of Fixed Asset format, Particulars of the supplier (Name and address and Bill No. and date) to be mentioned. It is observed in this the name of supplier, supplier's address, bill number and bill date were not recorded. That is to be complied.

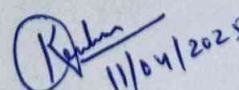
2. Instances have been noted where tour program have been approved after the tour has been concluded.

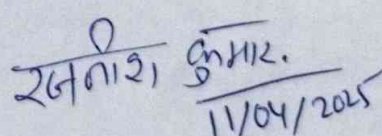
The audit team has recommended that prior approval from the competent authority be obtained before the commencement of the tour.

3. There is a minor difference in the figures recorded in the establishment fund expenditure register compared to the bank statement, which is due to the failure to account for A/C keeping charges of the bank under any existing heads.

The audit team suggests that provisions be made to include A/C keeping charges in the establishment fund expenditure register to ensure there are no discrepancies.

  
Anil Kawrani  
Director, NERPC

  
Kanchan Chauhan  
Deputy Director, NERPC

  
Rajnish Kumar  
Assistant Director, NERPC