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/2025-26/1512 -1591 Date: 31/07/2025

सेवा में / To,

As per NERPC members List.

विषय: 29वीं टीसीसी और 29वीं एनईआर पावर समिति की बैठकों के कार्यवृत्त - के संबंध में।
Subject: Minutes for the 29th TCC & 29th NER Power Committee Meetings – Reg.

महोदय/महोदया,

कृपया 17 और 18 जुलाई, 2025 को मेफेयर स्प्रिंग वैली रिज़ॉर्ट, सोनापुर, गुवाहाटी में आयोजित क्रमशः 29वीं टीसीसी और 29वीं एनईआर पावर कमेटी की बैठकों के कार्यवृत्त आपकी सूचना एवं आवश्यक कार्रवाई हेतु संलग्न देखें। यह एनईआरपीसी की वेबसाइट **www.nerpc.gov.in** पर भी उपलब्ध है।

Sir/Madam,

Please find enclosed herewith the minutes of the 29th TCC and 29th NER Power Committee meetings held on 17th and 18th July, 2025 respectively at Mayfair Spring Valley Resort, Sonapur, Guwahati for your kind information and necessary action. The same is also available on NERPC website: **www.nerpc.gov.in.**

भवदीय/Yours faithfully,

31/VII/2025

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, Dongtieh-Lower Nongrah, Lapalang, Shillong- 793006
34. CEO, MUML, 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

31/VII/2025

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), MUML, 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

दिनांक 01/32/ 31/VII/2025

सदस्य सचिव/**Member Secretary**

भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

उत्तर पूर्वी क्षेत्रीय विद्युत समिति

North Eastern Regional Power Committee

Minutes

of

29TH TCC & NERPC MEETINGS

(UNDER THE AEGIS OF NETC)

Venue	**:**	**Mayfair Spring Valley Resort, GUWAHATI**
Date (TCC&NERPC)	**:**	**July 17th &18th, 2025**

Contents

MINUTES OF 29TH TCC & NERPC MEETINGS HELD ON 17th & 18th July 2025

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 Resort, Guwahati
2	NERPC	18.07.2025	11:00hrs	Mayfair Spring Valley Resort, Guwahati

29th Meeting of the Technical Coordination Sub-Committee (TCC) and 29th Meeting of NER Power Committee were held on 17th & 18th July 2025 respectively at Guwahati. The meetings were hosted under the aegis of NETC. The list of participants is enclosed at Annexure **– I & II.**

Proceedings of the 29th TCC Meeting

Sh. Jai Shanker, MD, NETC in his welcome address extended a warm welcome to all delegates attending the 29th Meeting of TCC/ NERPC in the beautiful city of Guwahati. He highlighted the NETC's Role in providing reliable power transmission system in NER. He further expressed his gratitude towards NERPC forum to provide NETC an opportunity to organize the 29th TCC/NERPC meeting. At the end, he wished a happy and comfortable stay to all delegates attending the meeting.

Sh. Mukesh Swer, TCC Chairperson NERPC and Director MEPTCL welcomed the dignitaries, officials, and invitees, expressing gratitude to the North East Transmission Company for hosting the meeting and appreciation for NERPC's continued contribution to the power sector and welfare of the region.

Referring to the April 2025 blackout in Spain and Portugal, he noted that high renewable penetration, grid instability, and generation loss caused a large-scale outage. He highlighted the importance of balancing mechanisms, quick restoration measures, cybersecurity preparedness, and disaster management for modern power systems.

He urged expediting the upgradation of SCADA-EMS systems, establishment of backup control centres and Security Operation Centres (SOC) at SLDCs, and preparation of short-term resource adequacy plans by DISCOMs. He called for revisiting the high reserve requirements for NER states, early approval of PSDF-funded reconductoring projects, and implementing critical transmission schemes under a model similar to NERPSIP to address resource constraints.

He further expressed the hope that the meeting would take key decisions benefitting the country and the North Eastern Region. He concluded by extending greetings and looking forward to meaningful deliberations.

Detailed Speech of Sh. Mukesh Swer, TCC Chairperson NERPC and Director MEPTCL is attached at **Annexure-A**.

Proceedings of the 29th NERPC Meeting:

Sh. Jai Shanker, MD, NETC in his welcome address extended a warm welcome to all delegates attending the 29th Meeting of NERPC. He highlighted the NETC's Role in providing reliable power transmission system in NER. He further expressed his gratitude towards NERPC forum to provide NETC an opportunity to organize 29th NERPC meeting. At the end, he wished a happy and comfortable stay to all delegates attending the 29th Meeting of TCC/NERPC.

Sh. Jikke Tako, Hon'ble MLA and Advisor (Power-Electrical), Govt. of Arunachal Pradesh in his opening remarks emphasized the importance of the 29th Meeting of the North-Eastern Regional Power Committee (NERPC) meeting held at Guwahati, highlighting it as a platform for fruitful discussions to shape the future of the region's power sector. Further, he expressed his

gratitude to the Government of Arunachal Pradesh, particularly to the Deputy Chief minister for entrusting representation at the forum. He appreciated the North East Transmission Company Limited (NETC) for hosting the event and for their commitment to strengthening power infrastructure in the NE region.

He also mentioned a significant achievement by NE Region that the early commissioning of the 220 kV Kathalguri–Namsai D/C Transmission Line, which will benefit Arunachal Pradesh and the entire North Eastern Region. He further requested NERPC forum and PowerGrid for the early completion of "Stringing of 2nd Circuit for Pasighat–Roing–Tezu–Namsai Transmission Line" to avoid power flow bottleneck in Arunachal Pradesh. Further, he put forward proposal to reconductoring of the 132 kV S/C Panyor–Ziro ISTS Transmission Line and 132 kV Ziro–Daporijo–Basar–Aalo–Pasighat Intra-State Line with HTLS conductor. This proposal aims to resolve critical transmission constraints and meet growing construction power demands due to upcoming hydroelectric projects.

In conclusion, the speaker thanked all the participants for their commitment to the region's development, reiterating confidence in NERPC meetings as effective forums for collaboration and progress in the power sector.

Detailed Speech of the Sh. Jikke Tako, hon'ble MLA and Advisor (Power-Electrical), Govt. of Ar. Pradesh attached at **Annexure-B**.

Sh. Pu F. Rodingliana, Hon'ble Power Minister, Government of Mizoram expressed gratitude to Chairman, NERPC & Power Minister of Meghalaya, and all dignitaries present at the NERPC meeting, marking it as his first participation. He conveyed regret over the state's inability to host the previously scheduled meeting due to severe natural calamities that disrupted transport and connectivity.

Acknowledging the support received during the TCC meeting, the Hon'ble Minister appreciated the approval of the agenda concerning NPV and highlighted its significance for power projects in the North-Eastern region with large forest cover. He urged collective efforts to seek necessary amendments from the Central Government.

He further recalled the approval of the revival of the Small Hydro Incentive Scheme under MNRE in the 26th NERPC meeting and requested the committee to pursue the matter further, as it remains pending.

Hon'ble Minister thanked the Chairman for addressing the concerns of the state. Further, he proposed the hosting of the next TCC/NERPC meetings in December, extending an invitation to all members to experience the Christmas season in his state despite its modest infrastructure.

Detail Speech of Sh. Pu F. Rodingliana, Hon'ble Power Minister, Government of Mizoram attached at **Annexure-C.**

Sh. Ratan Lal Nath, Hon'ble Power Minister, Government of Tripura conveyed gratitude to the Chairman, the Power Minister of Meghalaya, and all participating dignitaries. He emphasized the importance of the forum for addressing power sector issues, fostering cooperation among North Eastern States, and collectively representing regional concerns to the Govt. of India.

The Minister reiterated the Government's commitment under the leadership of the Hon'ble Prime Minister to the principles of "Sabka Saath, Sabka Vikas, Sabka Vishwas, Sabka Prayaas" and the vision of Atmanirbhar Bharat and Viksit Bharat 2047. He highlighted region-specific challenges such as difficult terrain, climatic constraints, and logistical limitations, which increase project costs and cause delays, and urged support through viability gap funding and preferential financing.

He outlined key National initiatives including RDSS, PM-Surya Ghar: Muft Bijli Yojana, the National Green Hydrogen Mission, "One Sun, One World, One Grid", SAUBHAGYA and DDUGJY, noting their contribution to regional power development. Tripura's achievements include 26 MW of solar power capacity through solar pumps, streetlights, Micro-grids, rooftop and off-grid projects, the upcoming 800 MW NHPC pumped storage plant, and a Rs. 2,275 crore ADB-funded project to strengthen power distribution. Strategic initiatives include a planned 400 kV substation, drone surveillance, live line maintenance, mobile substations, reconductoring, an Emergency Restoration System, and a backup SLDC.

He reaffirmed Tripura's commitment to 24x7 affordable power supply and expressed gratitude to the Government of India for sustained support to the North Eastern Region's power sector.

Detail Speech of Sh. Ratan Lal Nath, Hon'ble Power Minister, Government of Tripura attached at **Annexure-D.**

Sh. A. T. Mondal, Hon'ble Power Minister, Government of Meghalaya and Chairman NERPC thanked the North East Transmission Company (NETC) for organizing the meeting and expressed support for including Sikkim in the NERPC framework, citing its membership in the NEC and DoNER, cultural and geographic similarity to NER states, and comparable challenges such as RoW constraints, vegetation issues, and landslides. He noted that power projects in Sikkim, already part of national grid connectivity via Bongaigaon–Siliguri, Salakati–Alipurduar, and Agra–Alipurduar HVDC lines, could easily be integrated with NER and requested the Ministry of Power to consider power allocation from Sikkim projects to NER States.

He requested a special scheme for "Intra-State Transmission Resource Adequacy 2034-35 for NER States" and highlighted concerns about uniform Net Present Value (NPV) charges for forest land diversion despite NER states having far higher forest cover (53.77%, and 66.52% with tree cover, compared to the national average of 21.76%). He explained that the uniform NPV regime increases project costs in highly forested states, discouraging investment and delaying development. He also highlighted anomalies in SRAS and TRAS reserve allocation and urged corrective measures.

He stressed the need to address manpower shortages in NER states through urgent capacity-building programs and supported holding the next RPC meeting in Jammu & Kashmir as requested by its Hon'ble Chief Minister. He concluded by reiterating appreciation to the Ministry of Power for its sustained support to the North Eastern Region and urged equitable treatment of NER states in policies and funding to ensure balanced power sector growth.

Detailed Speech of Sh. A. T. Mondal, Hon'ble Power Minister, Government of Meghalaya attached at **Annexure-E**.

Sh. Hemant Jain, Member (GO&D), CEA welcomed all the dignitaries in the meeting. He apprised the forum that RDSS phase II scheme has been extended by two years and now it will lapse on 31st March 2028. He impressed upon the states to send the DPR on Border Area Electrification schemes for inclusion in the RDSS scheme.

Further, he insisted on expediting the closure of NERPSIP and Comprehensive schemes as Ministry of Finance has instructed to close the earlier schemes before considering the funding for new schemes.

He also informed that PSDF has recently cleared two projects, first Guwahati Islanding scheme and second, Reliable Communication scheme of Nagaland. He added that five (5) on-going schemes of NER states are yet to see the final closure and requested the states to close schemes at the earliest.

Further, he stated that Indian power sector scenario is unique in the world as on one hand renewable energy has to be integrated in the system and on the other, peak power demand in non-solar hours has to be supplied. He further stated that large scale RE integration, without adequate ESS system, has led to pushing down the schedule of thermal plants below MTL, which in turn are facing challenge in providing power during non-solar peak hours.

Lastly, he expressed the need for maintaining the database of nodal persons of Generating companies, Transmission licensees, Distributing Licensees and other state and central utilities for ensuring single point contact and for better coordination during the time of emergencies etc.

Sh. K. B. Jagtap, MS, NERPC extended a warm welcome to all participants and expressed sincere appreciation to NETC, particularly its Managing Director, for hosting the meeting on short notice after it had to be rescheduled from Aizawl due to heavy rains and landslides, and acknowledged the excellent arrangements.

He outlined several key achievements since the last NERPC meeting. These included the commissioning of the 132 kV Roing–Chapakuwa and 220 kV Kathalguri–Namsai lines, which have enhanced connectivity in Arunachal Pradesh. Notable improvements in the protection system have contributed to

a reduction in grid disturbances. Additionally, the Kameng ICT mal-tripping issues have been addressed, communication systems have been upgraded, and significant progress has been made in the Comprehensive Scheme, with NERSIP nearing completion. He further informed that a Relay Protection Committee has been established to review relay settings, conduct training programs, and further reduce tripping incidents. Moreover, the revised Automatic Under Frequency Load Shedding (AUFLS) scheme has been implemented across all NER States.

He also highlighted the key outcomes from the TCC meeting such as inclusion of Sikkim as a new NERPC constituent and recognition of the need for review of the quantum of ancillary service reserves in NER States, which will be taken up with CERC and the Ministry of Power. He urged States to submit DPRs for downstream connectivity under the RDSS, establish integrated Security Operation Centres, and ensure the availability of skilled personnel at SLDCs and substations.

He appreciated the strong participation, reflecting regional commitment to resolving power sector challenges, and expressed hope for meaningful deliberations. Detail Speech of Sh. K. B. Jagtap, MS, NERPC attached at **Annexure-F.**

Sh. K.G.Kenye, Hon'ble Power Minister, Government of Nagaland could not attend meeting due unavoidable circumstances however, Detail Speech of Sh. K.G.Kenye, Hon'ble Power Minister, Government of Nagaland attached at **Annexure-G.**

1.2. Confirmation of the minutes of 28th NERPC Meeting

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

Deliberation

TCC forum noted the comments of OTPC and following amendment has been suggested and put for approval of RPC forum –

1. *The MoU word to be replaced as PPA.*
2. *The statement "ONGC should honor the MoU and provide the requisite amount of gas" will be replaced as "the fuel supplier honoring the GSPA and has been providing the requisite amount of gas to Palatana as per GSPA terms and conditions".*
3. *Palatana (OTPC) to approach individual beneficiaries for their approvals and take up matter for the tariff fixation with CERC".*

Deliberation of NERPC

Forum noted the comment of OTPC and approved MoM of 28th NERPC meeting with the amendments as suggested by TCC.

1.3. Action Taken Report on decisions taken in 28th TCC/NERPC Meetings

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

1.4. Arrangement of Agenda of 29th TCC Meeting

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

2. PART-A: ITEMS FOR DISCUSSION

2.1. INCLUSION OF SIKKIM IN NER REGION" & "AS CONSTITUENT MEMBER OF NORTHEASTERN REGIONAL POWER COMMITTEE - NERPC secretariat

Background

Sikkim is a member of Northeastern 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 4th NERPC Meetings held on 20th & 21st 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 9th NERPC meetings held on 12th 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 13th TCC/NERPC meetings held during 9th & 10th 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 9th RPC (12th 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.

Deliberation of TCC

NERLDC apprised the forum regarding challenges from grid operation point of view –

- The Available Transfer Capability (ATC) calculation is carried out by RLDC/NLDC for all the five regions. If Sikkim state is considered as a part of the North Eastern region (NER) instead of Eastern region (ER), Sikkim will form fragmented control area of NER, as Sikkim state has electrical connectivity only with the Eastern region. This may result in sub-optimal scheduling of Power.
- Further, in case of bilateral transactions involving Sikkim (as injecting or drawee) and other NER states (as injecting or drawee), it would be classified as NER-to-NER, even though the physical power flow would transit through the Eastern Region (i.e., Sikkim– West Bengal–NER). This creates a mismatch between the logical application path and the actual electrical path.
- At present, the Area Control Error (ACE) calculations are done on regional basis. If Sikkim is included in NER pool, then present practice of regional basis ACE calculations and dispatching of power may not be correct. In such case Sikkim needs to be made a separate bid area for all purposes.

After detailed deliberations**,** TCC forum opined that a sub-committee, comprising members from NERPC, NLDC, NERLDC, CTU, PowerGrid ,Assam State will be formed to study and resolve the operation, technical and commercial issues which will arise due to inclusion of Sikkim in NERPC.

TCC Forum in-principle agreed to the proposal for inclusion of Sikkim as a member of NERPC. The matter was referred to NERPC forum for a resolution to MoP (Ministry of Power, GoI) for inclusion of Sikkim as a member of NERPC.

Deliberation of NERPC

Chairman NERPC stated that sub-committee, as decided in TCC, may be formed and this subcommittee to study the operational, technical and commercial issues arising on inclusion of Sikkim as NERPC member and submit its report to NERPC Secretariat within two Months. He added that further decision on the matter will be taken after studying the report of the sub-committee.

2.2. 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 provisions for certain projects in the order No. 5-3/2011-FC(Vol-I) dated 6th 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 met 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 with 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 227th 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.

Deliberation of TCC

After detailed deliberation, all the NER states agreed to the proposal of 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 matter has been recommended to NERPC Forum for sending a resolution to MoEFCC (Ministry of Environment, Forest and Climate Change) on the issue.

Deliberation of NERPC

Forum agreed for sending a resolution to MoEFCC on the issue as recommended by TCC. A copy to be send to MoP and CEA.

2.3. 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 SCADA-EMS Project for SLDC-Assam State ends on 11th November 2024, and for SLDC-Meghalaya on 31st 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 21st meeting held under Chairmanship of Secretary (Power) on 17th 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 centres and Part B (Civil Works) for setting up of backup control centre of SCADA-EMS for the Load Despatch Centres of the North Eastern Region (NER), for each of the seven NER states, were submitted to PSDF Committee for approval on 16th August 2024.

Following multiple discussions in the 86th, 87th, 88th, and 89th 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 90th Meeting of the TESG of PSDF, held on May 2, 2025.

As per minutes of 90th meeting released on 28th 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.

Deliberation of TCC

NERLDC informed that the matter is under consideration of the PSDF appraisal committee, and no further progress has happened. The cost estimate submitted by NERLDC for all seven states amounts to 645 crore which includes 30% escalation over the LoA costs of SCADA/EMS of Tamil Nadu. MS NERPC stated that an advice of Member GO&D, CEA would be taken on RPC meeting day.

Deliberation of NERPC

Member (GO&D), CEA, apprised the forum that the matter has been referred by monitoring committee to form a joint committee, comprising of Member (GO&D) CEA, CMD, Grid India and JS(FA), MoP. Further he informed that the meeting of the committee will be organised shortly to resolve the matter at the earliest.

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

In 227th 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 (% of peak demand)		Requirement of reserve for large 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, dt. 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.

Deliberation of TCC

NERLDC informed that the high reserve requirement has precipitated mainly due to large deviation from schedule by the states and emphasized upon the states to adhere to the scheduled drawl.

Meghalaya raised that the issue that the hydro units in the states are not capable of rapidly ramping up the power, which forces the state to overdraw, for a very short period of time, to meet the demand. Meghalaya proposed for an enhanced ADMS mechanism to manage the load during such time to avoid large over drawl. Meghalaya also proposed that ACE calculation procedure should be modified to avoid such instances for calculation purpose.

Tripura raised the issue of constraints in gas supply, owing to isolated gas grid in Tripura, which limits ramping up and therefore causes large deviations. He proposed that the ACE calculation procedure should consider such problems in NER.

TCC Forum opined that the concerns of the states will be escalated to MoP.

Deliberation of NERPC

MS, NERPC informed that letter has been sent to CERC on 27.06.2025 to address the concerns of NER State.

Forum also decided to send a resolution on the matter to MoP to address the concerns of NER states.

2.5. 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 over-arching 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

Deliberation of TCC

The forum noted the program details as provide by PowerGrid and in principle agreed and recommended for approval of RPC forum.

Deliberation of NERPC

Chairman NERPC emphasised that the capacity building program is critical for the NER power utilities and stated that a resolution will be sent to MoP for expediting PSDF funding or any other funding, for the program.

2.6. 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 analysing 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)**

Further, 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.

Deliberation of TCC

MS NERPC exhorted all the states to prepare the DPR for SOC with integrated NOC with five-year AMC at the earliest and send to PSDF secretariat to avail the PSDF fund.

Deliberation of NERPC

CMD, MeECL stated that preparing the DPR requires expertise and it may be outsourced to another agency. Member (GO&D), CEA informed that Model DPR as provided by CSIRT, MoP (attached **as Annexure 2.9b**) may be used. He added that reference can be taken from DPR of Assam to prepare the DPR for SOC with integrated NOC.

MS NERPC urged all the states to prepare DPR accordingly and send the DPR to PSDF Secretariat at the earliest.

2.7. 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.

Deliberation of TCC

TCC forum agreed for creation of the "Training" head for capacity building and domestic training and recommended to NERPC for concurrence.

Deliberation of NERPC

Member (GO&D), CEA suggested that domestic training on protection may be imparted to beneficiaries of NERPC through training organised by NPTI or PGCIL etc through this training fund.

Forum agreed to the recommendation of TCC

2.8. 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 27th 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 28th 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 cconsidering 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.

Deliberation of TCC

MS NERPC informed that the issue of funding of the scheme was discussed in previous RPC meeting and a resolution has been sent to MoP on the matter. Further follow-up action will be taken by NERPC. If required, another resolution will be sent to MoP.

Deliberation of NERPC

Member (GO&D), CEA requested the states to close the NERPSIP and comprehensive schemes before initiation of new scheme. On enquiring about the status and progress of the NERPSIP scheme, ED, NERTS informed that 90-95% of the targets of the scheme have been completed and the scheme is planned to be completed by March'26.

CMD, MeECL, along with other states, expressed concern over delay in addressing of punch points by NERPSIP team, which in turn is delaying the handing over of the completed projects. ED, NERTS stated that to address the issues, state wise joint force has been formed which will resolve the issues on priority basis. The forum exhorted NERPSIP team to address the concerns of states and complete the project within timeline. MS NERPC informed that a separate review meeting will be taken with States and NERPSIP/Comprehensive team to resolve the issue of Punch points.

After deliberation, it was decided to send the resolution to MoP for funding of Intra- State transmission 2031-32 time frame.

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 27th 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 Anenxure-2 for reference) in the 218th OCC meeting held on 12th 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 09th 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 20th January, 2025 & 21st January, 2025

Subsequently, the NERPC sub-committee visit report was presented in the 223rd OCC meeting held on 28th 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 223rd 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 Anenxure-6 for reference) was submitted by NETC in the 55th Commercial sub-Committee Meeting (CCM) held on 22nd 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 detail 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 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

Deliberation of TCC

TCC forum approved and referred to NERPC for concurrence

Deliberation of NERPC

Forum concurred to the recommendation 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 55th 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 224th 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

Deliberation of TCC

TCC forum approved and referred to NERPC for concurrence

Deliberation of NERPC

Forum agreed to the recommendation 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. he 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 Windows2012 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 3rd 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:

S No	Description of the Issue being faced in URTDSM Phase-I AMC	Solution Proposed by POWERGRID	Tentative Cost in Rs. Lakhs excluding GST	Remarks
1.	**Windows 2012 R2 OS Obsolescence:** 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	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. POWERGRID budgetary of Rs. 1.5	**4.05 per LDC**	Budgetary quote from TrendMicro

	upgrade on existing IT infra is not feasible.	Crores (approx.) for 3-year license support.		
2.	**PMU Data Streaming through Internal Firewall**: 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: a) 2 LAN switches (Hardware) b) Configuration of Internal Firewall (Services)	**15.35 Lakhs per LDC**	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. 52nd ERPC meeting held on 05.09.2024 – **Approved by Board (all 3 points)**

b. 51st WRPC meeting held on 11.01.2025 – **Approved by Board**. (**all 3 points**)

c. 54th SRPC Communication meeting of on 21.01.2025, further this was deliberated in the 54th SRPC meeting on 21.03.2025 – **SRPC Board Approved (2 points only**) Point (I) and (II).

d. Discussed in 78th NRPC on 16-17Mar'25, further discussed in 27th NR TeST Meeting on 21.04.2025 and was agreed by all members. Now being put up in 79th NRPC Board meeting scheduled on 30.05.2025.

e. 28th NERPC & TCC on 20.02.2025, further this was deliberated in 31st NE TeST meeting on 04.04.2025 & agreed for point (1) and (2). Being put up for approval in the 29th NERPC Board meeting.

Deliberation of TCC

TCC forum approved and referred to NERPC for concurrence

Deliberation of NERPC

Forum concurred to the recommendation of TCC.

3.4. Representation in NCT - NERPC secretariat

MoP vide order No. 15/3/2018-Trans-Part (5) dated 18.02.2025 (**Annexure-3.4)** 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.

Deliberation of TCC

TCC forum recommended as follow –

1. TCC chairperson shall be nominated from NERPC to NCT
2. Alternate member will be MS, NERPC

Referred to NERPC for concurrence

Deliberation of NERPC

Forum approved to the recommendation of TCC.

3.5. 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 lines 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 reconductoring 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.

Deliberation of TCC

Powergrid informed that some portions of the 132kV Dimapur-Dimapur ckt2 and 132kV Dimapur (PGCIL) - Kohima lines belong to Powergrid (around 0.335 Km in each line). NERPC stated that the PowerGrid's portion should be excluded from the PSDF funding proposal and reconductoring of the Powergrid's portion to be completed by the owner in matching timeline.

TCC forum approved the proposal of Nagaland, excluding the portion owned by PowerGrid from the scope, and referred to NERPC for concurrence.

Deliberation of NERPC

Forum agreed to the recommendation of TCC.

Member (GO&D), CEA apprised that PSDF scheme is facing fund crunch issue; therefore, getting PSDF funding for the scheme may be difficult. He suggested that all the reconductoring proposals of all NER states should be compiled and sent to PSDF Secretariat.

3.6. ISTS transmission scheme for NERGS-III Siang Basin - CTUIL

NERGS-III Siang 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 42nd CMETS-NER held on 29-04.205 and 44th 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

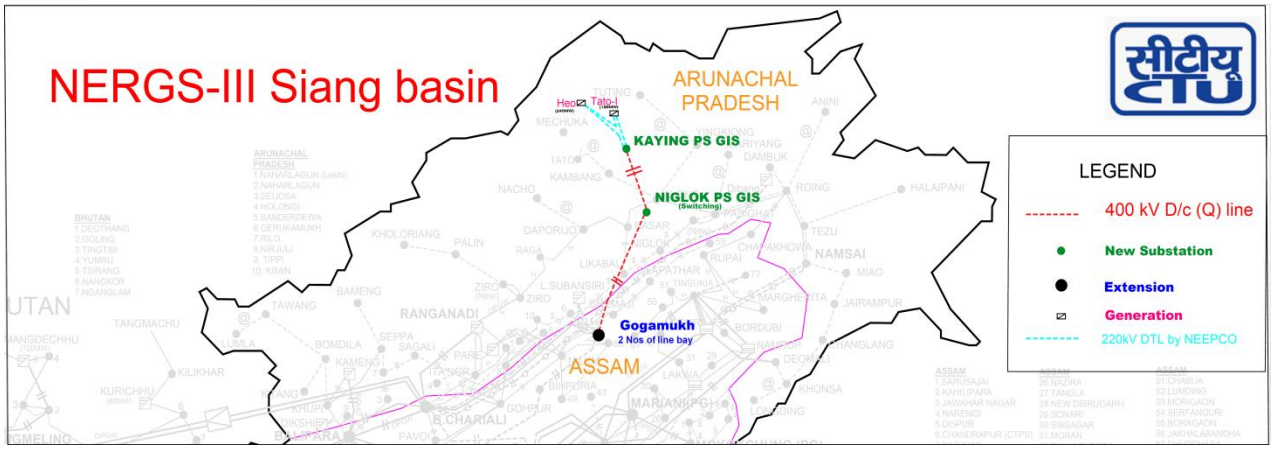
than Rs. 500cr. CTU has to submit the scheme to NCT for their consideration after consulting the RPC.

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.

Sl. No.	Items	Details
1.	**Name of scheme**	NERGS-III Siang Basin
2.	**Scope of the scheme**	Brief scope of works is given below. Detailed scope of works is enclosed at **Appendix-A.** i. Establishment of new 2x500MVA, 400/220kV GIS Pooling station at Kaying in Arunachal Pradesh 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) iii. Extension at Gogamukh 400/220/132kV (ISTS) substation iv. Kaying PS – Niglok PS 400kV D/c (Quad) line v. Niglok PS – Gogamukh 400kV D/c (Quad) line Detailed scope of works is enclosed at **Appendix-A.**
3.	**Depiction of the scheme on Transmission Grid Map**	Refer **Exhibit-1**.

Sl. No.	Items	Details
4.	**Upstream/downstream system associated with the scheme**	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.	**Objective / Justification**	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 & 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. 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. Based on the evacuation system mentioned in the draft Master Plan, the said 426MW connectivity application was agreed to be granted ISTS Connectivity in the 42nd CMETS-NER held on 29-04-2025 and 44th CMETS-NER held on 26-06-2025 with NERGS-III Siang

Sl. No.	Items	Details
		Basin to be implemented under ISTS as common augmentation for subject and potential HEPs in Siang basin. Detailed scope of works is enclosed at **Appendix-A.**
6.	**Estimated Cost**	About ₹ 1804.30Cr
7.	**Impact on the total Annual Transmission Charges in % along with the existing ATC**	A. ATC (considering levelized tariff @15% of estimated cost): ₹270.645 Cr. B. Present ATC: ₹45581.92 Cr.* C. A/B: 0.594%
8.	**Need of phasing, if any**	Nil
9.	**Implementation timeframe**	28-02-2029
10.	**Inclusion of any wild life/ protected area along the transmission line route**	No major NP, WLS, other protected areas observed. However, for details of other forest/protected areas survey is required to be done.
11.	**Deliberations with RPC along with their comments**	**NERPC may add their deliberations here.**
12.	**System Study for evolution of the proposal**	Refer **Exhibit-2**.



Sl. No.	Scope of works: NERGS-III Siang basin	Capacity (MVA) / Line length (km)/ Nos.
1.	Establishment of new 2x500MVA, 400/220kV GIS Pooling station at Kaying in Arunachal Pradesh **Additional space for future expansion**: - 400/220kV, 2x500MVA ICTs along with associated ICT bays at both voltage levels - 420kV, 1x80MVAr bus reactor along with associated bay - 10 nos. of 400kV line bays (along with space for switchable line reactor) for future lines - 8 nos. of 220kV line bays for future lines - 400kV bus sectionaliser bay: 1 set - 220kV bus sectionaliser bay :1 set - 220kV bus coupler bay: 2 no.	420kV, 80MVAr bus reactor: 2 nos. 400kV GIS Bus reactor bays: 2 nos. 400/220kV, 500MVA ICT: 2 nos 400kV GIS ICT bays: 2 nos. 220kV GIS ICT bays: 2 nos. 400kV GIS line bays: 2 nos. [for Kaying PS – Niglok PS 400kV D/c (Quad) line] 220kV GIS line bays: 2 nos. [for termination of DTL of 1840A or more per circuit] 420kV, 50MVAr switchable line reactor with GIS bays: 2 nos. [one in each circuit of Kaying PS – Niglok PS 400kV D/c (Quad) line]

2.	Establishment of new 400kV GIS Switching station at Niglok in Arunachal Pradesh (with a provision for 400/220kV level and 6000MW LCC HVDC station) **Additional space for future expansion**: - Establishment of ±800 kV, 6000 MW, Niglok (HVDC) [LCC] terminal station (4x1500 MW) along with associated interconnections with 400 kV HVAC Switchyard & all associated equipment (incl. filters)/bus extension, etc. - 400/220kV, 4x500MVA ICTs along with associated ICT bays at both voltage levels - 420kV, 1x80MVAr bus reactor along with associated bays - 12 nos. of 400kV line bays (along with space for switchable line reactor) for future lines - 8 nos. of 220kV line bays for future lines - 400kV bus sectionaliser bay: 1 set - 220kV bus sectionaliser bay :1 set - 220kV bus coupler bay: 2 no.	420kV, 80MVAr bus reactor: 2 nos. 400kV GIS Bus reactor bays: 2 nos. 400kV GIS line bays: 4 nos. [2 for Kaying PS – Niglok PS 400kV D/c (Quad) line & 2 for Niglok PS – Gogamukh 400kV D/c (Quad) line] 420kV, 50MVAr switchable line reactor with GIS bays: 2 nos. [one in each circuit of Niglok PS - Gogamukh 400kV D/c (Quad) line]

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, 1x50MVAr bus reactor along with associated bay each at Heo and Tato-I generation switchyards.*

Deliberation of TCC

CTU informed that the cost of the project has been revised to Rs. 1804 crores with the scope of the project remaining unchanged.

TCC forum in principle agreed to proposal and referred to NERPC for concurrence.

Deliberation of NERPC

NERPC forum opined that demand of NER region is very less and all the power will be evacuated and used by the high demand States in other regions. It was queried by States that whether the transmission charges for NER States will be waived off similar to evacuation of Renewable power plant as hydro power plant is also being recognised as renewable energy. CTU informed that at present only renewable plants(solar/wind) are eligible of waiving of transmission charges.

After detailed deliberation, Forum opined that transmission charges for the scheme may be waived off for NER States and requested CTU to consider the cost of the scheme under "National Component" of ISTS charges.

3.7. 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 26th TCC and NERPC meeting held on the 4th and 5th 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 227th 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.

Deliberation of TCC

TCC forum approved and referred to NERPC for concurrence

Deliberation of NERPC

Forum agreed to the recommendation of TCC

3.8. 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 27th TCC and NERPC meetings held at Guwahati on the 7th and 8th 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 227th OCCM wherein the forum in principle agreed the proposal of132/33kV substation at Kamjong along with associated 132kV DC line from 132/33kV Hundung Substation. as the same was already approved in the CEA report.

Deliberation of TCC

TCC forum approved and referred to NERPC for concurrence.

Deliberation of NERPC

Forum agreed to the recommendation of TCC

3.9. RECONDUCTORING AND STRENGTHENING OF 132kV S/C TRANSMISSION LINE FROM 132/33kV JIRIBAM SUBSTATION TO 132/33 kV RENGPANG SUBSTATION - MSPCL

The 132/33kV Substation at Rengpang 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-Rengpang 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 28th 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-Rengpang line is also causing the overloading of 132kv Loktak-Ningthoukhong line. The forum also stressed upon the early restoration of 132 kV Rengpang - 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 Rengpang 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 227th 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.

Deliberation of TCC

TCC forum approved and referred to NERPC for concurrence

Deliberation of NERPC

Forum agreed to the recommendation of TCC

3.10. 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 decision 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.

Deliberation of TCC

MS, NERPC briefed about the progress made with respect to NERPC transit Guest House at Guwahati. Further he informed that one-time estimated expense of around 35.0 Lakhs will be required to procure furniture items and other necessary equipment for the NERPC transit Guest House will be required and cost of these items will be born from the unutilized fund of Board Fund. He also apprised the forum about recurring expenditure about 3 Lakhs per month to pay rent and wages of outsourcing staff to maintain Guest house and requested additional contribution from NERPC members.

After detailed deliberation, Forum in principle agreed for one time estimated cost of Rs 35.0 lakh for procuring furniture and other necessary equipment from Board fund and recurring expenditure about 3 Lakhs per month(to pay rent and wages of outsourcing staff to maintain Guest house) and referred to NERPC forum for approval

Deliberation of NERPC

Forum approved the recommendation of TCC.

3.11. 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**.

Deliberation of TCC

MS, NERPC has briefed that the internal and external Painting Works of NERPC Quarters and internal painting of NERPC Secretariat Office has to be carried out. He informed that in 24th NERPC meeting, an amount of Rs 98.79 Lakhs was sanctioned for this painting work based on estimate provided by CPWD. The amount has already been deposited by NERPC members in the NERPC establishment fund created in 24th NERPC meeting. The budget estimate provided by CPWD was old and CPWD has not provided the new

estimate. Hence external painting work of office building was carried out through GEM as pilot basis and to facilitate the inauguration of office building which was long pending. Now NERPC got the estimate of 94.94 lakh through GEM portal for the internal and external Painting Works of NERPC Quarters and internal painting of NERPC Secretariat Office.

Further he informed forum that this is a onetime expense of Rs 94.94 lakh and apprised that cost of the work would be born from NERPC Establishment Fund. No new contribution will be required the unutilized fund from NERPC Establishment Fund will be utilized for this work.

After detail deliberation Forum agreed for the same and referred to NERPC forum for approval.

Deliberation of NERPC

Forum approved the recommendation of TCC.

3.12. 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.

Deliberation of TCC

MS, NERPC has briefed the forum about expenditure of **₹26.20 lakhs** incurred to organize the 16th NPC meeting at Shillong. Forum noted the same and referred to NERPC forum for approval.

Deliberation of NERPC

Forum approved the recommendation of TCC.

3.13. 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 amounted to ₹2.50 lakhs.

Deliberation of TCC

MS, NERPC has briefed the forum that around 2.5 Lakh expenditure incurred to inaugurate the office complex of NERPC. Forum has noted the same and referred to NERPC forum for approval.

Deliberation of NERPC

Forum approved the recommendation of TCC.

3.14. 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 30th, 31st, 32nd and 33rd meetings have been proposed as:

Sr. No.	Meeting	Hosted by
1.	30th	Mizoram

2.	31st	Tripura
3.	32nd	OTPC
4.	33rd	NVVN
5.	34th	

Deliberation of TCC

Mizoram agreed to organise the 30th TCC and NERPC meeting in November/December 2025.

Deliberation of NERPC

HPM Meghalaya and Chairman NERPC suggested that to explore the possibilities of conducting the next NERPC meeting in J&K in November 2025 by NER power utilities based on recommendation from MoP on matter of CM, J&K invitation to host meeting in J&K. This meeting can be organised by NVVNL and NTPC to coordinate the same. ED NTPC agreed to assist in coordination with NVVNL.

Mizoram informed that they are ready to host either 30th or 31st TCC/NERPC meeting at Aizwal.

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:

Sl. No.	Beneficiary	Outstanding Dues (>45 Days) In Crores
1	Arunachal Pradesh	0
2	Assam	0
3	Manipur	7.94
4	Meghalaya	0
5	Mizoram	0
6	Nagaland	0
7	Tripura	29.80
	Total	**37.74**

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.

Deliberation of TCC

MD, TSECL informed forum that Tripura has already cleared its dues with OTPC Palatana.

Representative of Manipur has informed forum that Manipur will clear all dues shortly.

Deliberation of NERPC

Forum exhorted Manipur to clear the dues at the earliest.

(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:

State	LC Required (in Crores)	LC Provided (in Crores)
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.

Deliberation of TCC

MS, NERPC requested the concerned beneficiaries to open LC on time.

Deliberation of NERPC

Forum requested the concerned beneficiaries to open LC on time.

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
Total Outstanding	**₹ 7,98,55,949**

Reactive Outstanding	

FY 24-25	₹ 10,30,497
FY 25-26	₹ 2,67,574
Total Outstanding	**₹ 12,98,071**

Manipur may update

Deliberation of TCC

MS, NERPC requested Manipur to release the outstanding dues at the earliest.

Deliberation of NERPC

Manipur informed that DSM charges payment has been delayed due to low revenue collection and they will try to clear the dues as early as possible. Forum noted the concern of Manipur and requested to clear the dues as early as possible.

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 Fy2025-26:

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

Deliberation of TCC

NERPC Secretariat has presented NERPC Board Fund Quarterly expenditure for FY 2024-25 and First Quarter of FY 2025-26 and NERPC Establishment Fund Quarterly expenditure for FY 2023-24, FY 2024-25 and First Quarter of FY2025-26. Forum has taken note of same and forwarded to NERPC forum.

Deliberation of NERPC

MS, NERPC briefed the forum about the Quarterly expenditure for NERPC Board Fund for FY 2024-25 and 1st Quarter of FY 2025-26 and Quarterly

expenditure for NERPC Establishment Fund for FY 2023-24, FY 2024-25 and 1st Quarter of FY 2025-26.

Members noted.

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

A. Regular Members:

F.Y 2025-26					
	Constituents	**Status of Payment**		**Constituents**	**Status of Payment**
1	Ar. Pradesh	Payment Received	8	**NTPC**	**DUE**
2	**Assam / APDCL**	**DUE**	9	**NHPC**	**DUE**
3	**Manipur/MSPDCL**	**DUE**	10	**PTC**	**DUE**
4	Meghalaya/MeECL	Payment Received	11	NVVN	Payment Received
5	**Mizoram**	**DUE**	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:

Constituents	**Status of Payment**
KMTL	DUE
NER-II TL(Indigrid)	Payment Received

Constituents may update the status of payment

Deliberation of TCC

Representative of NTPC has informed forum that they have already paid the contribution for the NERPC Board Fund for the FY2025-26. Manipur informed that they will pay the contribution by next week. MS, NERPC has appreciated

the members who has already made payments and requested all the remaining Members of NERPC to make payment at earliest.

Deliberation of NERPC

Members noted.

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

A. Regular Members:

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

B. Non-Member Participants:

Constituents	**Status of Payment**
KMTL	DUE
NER-II TL (Indigrid)	DUE

Deliberation of TCC

Representatives of NTPC, TSECL and MePTCL informed forum that they have already paid the contribution for the NERPC Establishment Fund for the FY2025-26. MS, NERPC has appreciated the members who have already made payments and requested all the remaining Members of NERPC to make payment at earliest.

Deliberation of NERPC

Members noted.

4.6. 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 carry 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.

Deliberation of TCC

NERPC Secretariat has presented audit reports for the NERPC Board Fund and NERPC Establishment Fund. MS, NERPC has informed forum that NERPC Secretariat has noted the audit observation for compliance/future compliance. He further apprised forum that External audit process by NERPC members would be finished in due time and internal Audit report by CA and external audit by Director NERPC has been placed. Forum has noted the same and referred to NERPC forum for information.

Deliberation of NERPC

Members noted.

5. D: ITEMS FOR INFORMATION/UPDATE

5.1 Status of Construction of Backup SLDC in NER states - NERLDC

As deliberated in 86th Meeting of the TESG of PSDF held on 22nd 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 31st 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 .
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.

Deliberation of TCC

State utilities updated the status of back-up SLDC as follow –

S. No.	Name of state	Status of construction of Back up SLDC as per 29th TCC meeting
1	Arunachal Pradesh	Land identified at Niglok substation. Proposal has been submitted to government of Arunachal Pradesh for budget provision of this year.
2	Assam	Assam updated that Land identified in Samaguri and DPR has been submitted with a budget of around 8.5 Cr. to Govt. of Assam for approval of funds
3	Manipur	Location identified at 400kV Thoubal SS. Space required for accommodating UPS and Battery.
4	Meghalaya	Tendering under process. Space identified at Mawphlang SS.
5	Mizoram	Budget amount approved; expenditure sanction expected by next month.
6	Nagaland	Space ready at New Kohima S/S (New Secretariat)
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 shortly.

TCC forum noted the same

Deliberation of NERPC

Forum noted as above.

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

On 20th 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 219th 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 13th September 2024. The work is expected to be completed by December 2026.

Deliberation of TCC

AEGCL informed, regarding 400kV part of Khumtai substation, that they are waiting for funding approval.

Regarding 400kV Rangia and 400kV Sonapur substations, AEGCL informed that the status remains the same.

TCC urged AEGCL to complete the works at the earliest in order to address the grid constraints of Assam.

Deliberation of NERPC

Forum noted as above.

5.3 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 26th and 27th RPC meeting. In 26th 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 27th 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.

Deliberation of TCC

MS NERPC exhorted all the states to submit the proposal for downstream network requirement to CEA at the earliest.

Deliberation of NERPC

Forum noted as above.

5.4 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 4th 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:*

   i. *SM Nagar (ISTS)-SM Nagar T/L*

   ii. *SM Nagar (ISTS)-BudhjungnagarT/L*

   iii. *PK Bari (ISTS)-PK Bari T/L*

   iv. *PK Bari (ISTS)-Ambasa T/L*

b) *Early Commissioning of following lines:*

   i. *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 224th 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.

Deliberation of TCC

Tripura updated as follow –

1. Regarding reconductoring of all four lines, LoA has been awarded on 21st June 2025
2. 132kV Rokhia- Rabindranagar line has been completed but commissioning is yet to be done owing to pending communication issues.
3. Regarding 132kV Monarchak-SM Nagar DC line, RoW issue is pending and the the work is expected to be completed by Dec'25.
4. Regarding 132kV SM Nagar -Rokhia DC line, NOC from railway is pednign.

MS NERPC stated the matter for SM Nagar-Rokhia line which will be taken up with the railways in lower forums.

Deliberation of NERPC

Forum noted as above.

5.5 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 –

3. 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.
4. 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.
5. 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 ae causing multiple Gird disturbances and blackouts of loads and generating units causing financial losses and disservice to common people.
6. Non-functional protection systems: relay maloperation, failure of CBs and instrument transformers have become a frequents occurrence and no action are 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.

Deliberation of TCC

TCC forum impressed upon all the states utilities to take necessary actions to resolve pending protection issues and comply with IEGC 2023 protection code.

Deliberation of NERPC

Forum noted as above.

5.6 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 substation equipment is 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.

Deliberation of TCC

TCC forum strongly requested all the state utilities to ensure that skilled and trained manpower have been deployed at all substations for the smooth and safe operation of the grid.

Deliberation of NERPC

Forum noted as above.

5.7 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.

Deliberation of TCC

MS NERPC stated that the cyber security workshop will be organised shortly for all states.

Deliberation of NERPC

Forum noted as above.

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

a) In the 15th 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-5.8**

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**

Sub-Category	Requirement	Details
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**

Designation	Qualification	Experience	Additional Notes
Team Leader (Option 1)	Bachelors in Electrical / EEE	10 years incl. 2 audits	-
Team Leader (Option 2)	Bachelor's + Master's	7 years incl. 2 audits	-
Team Leader (Option 3)	PhD + Master's + Bachelor's	3 years incl. 2 audits	-
Protection Engineer (Option 1)	Bachelor's in Electrical / EEE	7 years	Minimum 3 required
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
OEM JV Restriction	Self-declaration	No JV with OEM
Manpower Strength – Total	15 qualified engineers	Minimum BE/B.Tech in Electrical/EEE
Manpower Strength – Role	Team Leaders: 3, Protection Engineers: 10	As per qualification criteria
Experience	Minimum 7 years	In protection audits or similar projects
Past Projects	2 audits since 2019	132 kV and above substations
Turnover	As per contract	Average over last 3 financial years
Net Worth	Positive	Must be financially healthy
Solvency Certificate	Required	Valid document must be submitted

Technical Proposal	Content	Experience, Methodology, Work 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 (≥4 / 3 / 2 / <2)	30 / 20 / 10 / Not eligible.
Scale – No. of Bays/Elements audited (≥20 / <20)	20 / 10
Nature – No. of Gen. Stations audited (≥3 / 1-2 / 0)	20 / 10 / 0
Team Lead Experience (≥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 16th 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.

Deliberation of TCC

MS NERPC requested all the utilities to review the draft qualifying criteria and provide comments within one week to NERPC.

Deliberation of NERPC

Forum noted as above.

5.9 Workforce Adequacy at Load Despatch Centres - NERPC secretariat

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

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

LDCs - Workforce Staffing Norms			
SN	**Function**	**Medium SLDC**	**Emerging SLDC**
System Operation			
1	System Operation - Operational Planning	16	9
2	Real Time Grid Operation (For SO only)	26	**18**
3	Post-Despatch	10	4
Sub -Total (SO)		**52**	**31**
Market Operation			
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
Subtotal – MO		**9**	**4**
Logistics			
8	logistics _Operation technology	8	3
9	IT logistics	6	3
10	Communication logistics	2	2
Subtotal – Logistics		**16**	**8**
REMC			
11	REMC Logistics	2	1
Cyber Security			

12	Cyber Security	**13**	**10**
Support Functions			
13	Contract Services	2	2
14	Finance and Accounts	5	3
15	HR & Admin	4	3
Subtotal -Support Functions		**11**	**8**
Grand-Total		**103**	**62**

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 28th 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.

Deliberation of TCC

MS NERPC informed that as decided in 28th TCC/RPC meeting, NERPC has sent a resolution to MoP for delinking of the manpower issue with the PSDF

funding and phased wise manner of recruiting manpower as mandated by the guideline.

NERLDC highlighted that the sanctioned strength SLDCs are not even filled in the states.

Meghalaya raised the issues that the manpower requirement as mentioned in the guideline is too high for the state considering the generating and transmission infrastructure present in the state and requested for a review of the same, if possible.

NERLDC stated that considering the amount of work involved under CERC regulations like RE integration, reserve estimation, load forecasting cyber security etc, the manpower mandated as per the guidelines is essential.

MS NERPC exhorted states to fill the manpower up to the sanctioned strength at the earliest.

Deliberation of NERPC

Forum noted as above.

5.10 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 daytime 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 up to 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 need 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) Timelines 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 need 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 up to 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 optimize 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.

Deliberation of TCC

MS NERPC requested all the utilities to study the recommendation of NPC subcommittee on above matter and provide views/ comments within 10 days to NERPC.

Deliberation of NERPC

Forum noted as above.

5.11 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 27th 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 30th and 31st NETeST meetings as agenda items 2.19 and 2.14 respectively wherein the implementing agency, POWERGRID, had assured rectification of the defects by the 31st 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. POWEGRID may be requested once again to resolve the issues and to specify a timeline thereof failing which, the forum may explore the

possibility for penalising the implementing agency for excessive delay in resolving the issues.

Deliberation of TCC

PowerGrid informed that issue was rectified in Dec'24 but the issue has recurred. Further he stated that they will look into the issue and will resolve by 15th August '25

Deliberation of NERPC

Forum noted as above.

5.12 REDUCTION OF PRICE QUOTED FOR AMC OF SAMAST - MePTCL

During the 27th 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 27th TCC and NERPC meetings.

Deliberation of TCC

MS NERPC informed that the issue was discussed in a special meeting held by NERPC on 11.07.2025 and it was decided to review scope of AMC work in consultation with NER states.

Deliberation of NERPC

Forum noted as above.

5.13 AMC of PDMS System

28th RPC meeting forum approved Rs 60.0 Lakhs for AMC of PDMS system with effective 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 5th 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.

Deliberation of TCC

MS, NERPC has informed the forum about expenditure done from NERPC establishment Fund for AMC cost of the PDMS system. Forum has noted the same and referred to NERPC forum for approval and information.

Deliberation of NERPC

Forum noted and agreed to the same.

5.14 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 227th OCCM.

A. Guwahati Islanding Scheme

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

B. Tripura/Agartala Islanding Scheme

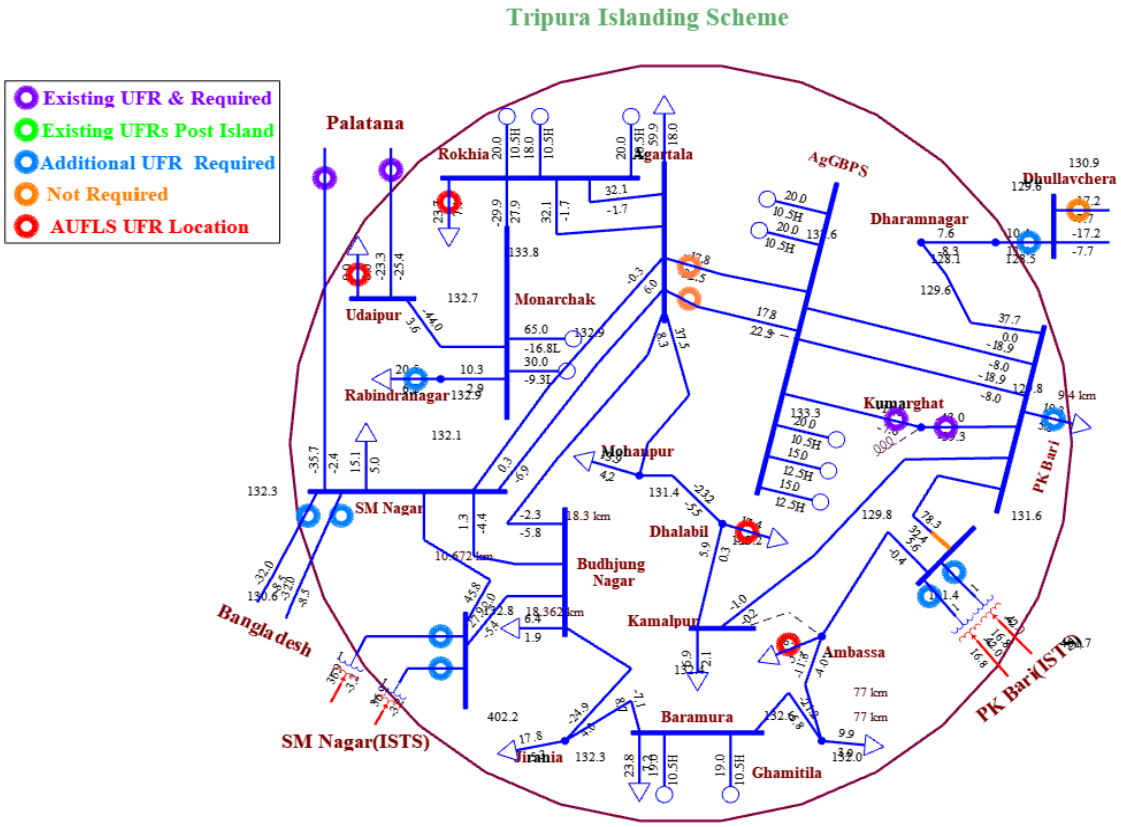
Scheme finalised, under implementation

OTPC- done its part

PowerGrid -will complete shortly

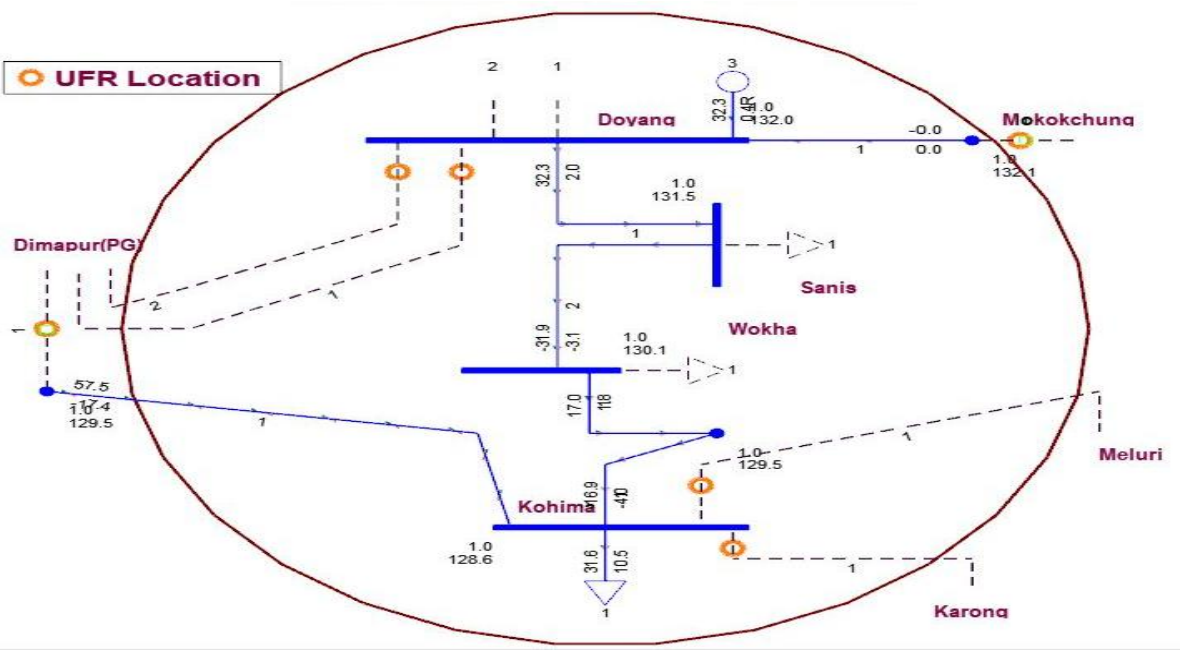
NTL: to be done

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



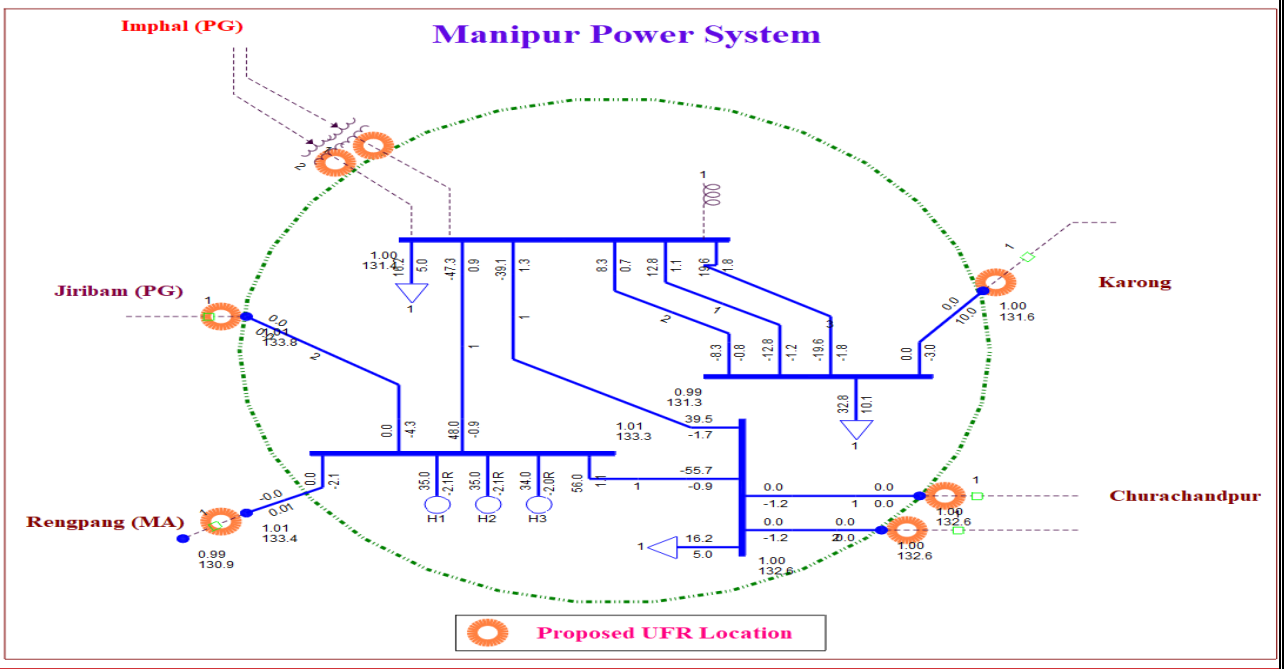
C. Kohima Islanding scheme

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



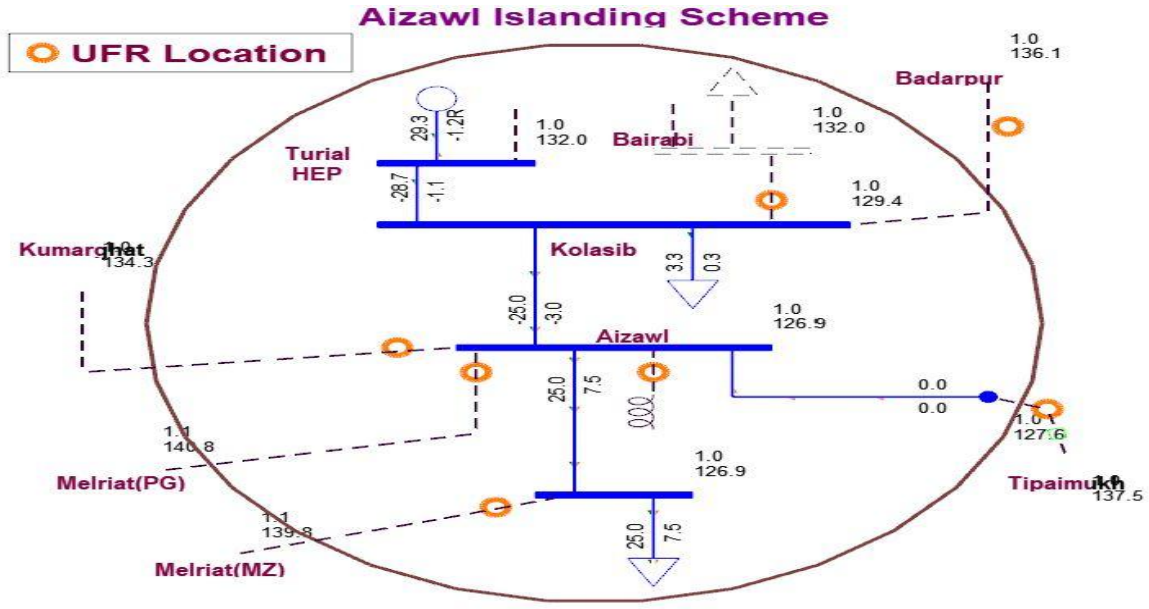
D. Imphal Islanding scheme

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.

Deliberation of TCC

A. Guwahati Islanding Scheme

Representative of Assam informed forum that on 7th July-2025 TESG has approved the funding for the Guwahati Islanding Scheme. Further He apprised the forum that TESG has not approved the funding for the Optical Fiber communication link.

B. Aizawl Islanding scheme

It was informed that Aizawl Islanding scheme has been implemented and operational from 17th July-2025.

MS, NERPC has requested the all the stakeholder of Tripura/Agartala Islanding Scheme, Meghalaya/Shillong Islanding Scheme, Kohima Islanding Scheme and Imphal Islanding scheme to expedite the work and make Islanding schemes operational at the earliest.

TCC noted as above

Deliberation of NERPC

Assam state informed that PSDF committee has approved the proposal of Guwahati islanding scheme**.**

Forum noted as above.

5.15 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 226th OCC meeting held on 20th 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.

Deliberation of TCC

Forum has requested all the Stakeholders to provide required data in timely manner.

Deliberation of NERPC

Forum noted as above.

5.16 Issue in SEM data of 132 kV Dharmanagar end of Dullavcherra Feeder - NERLDC

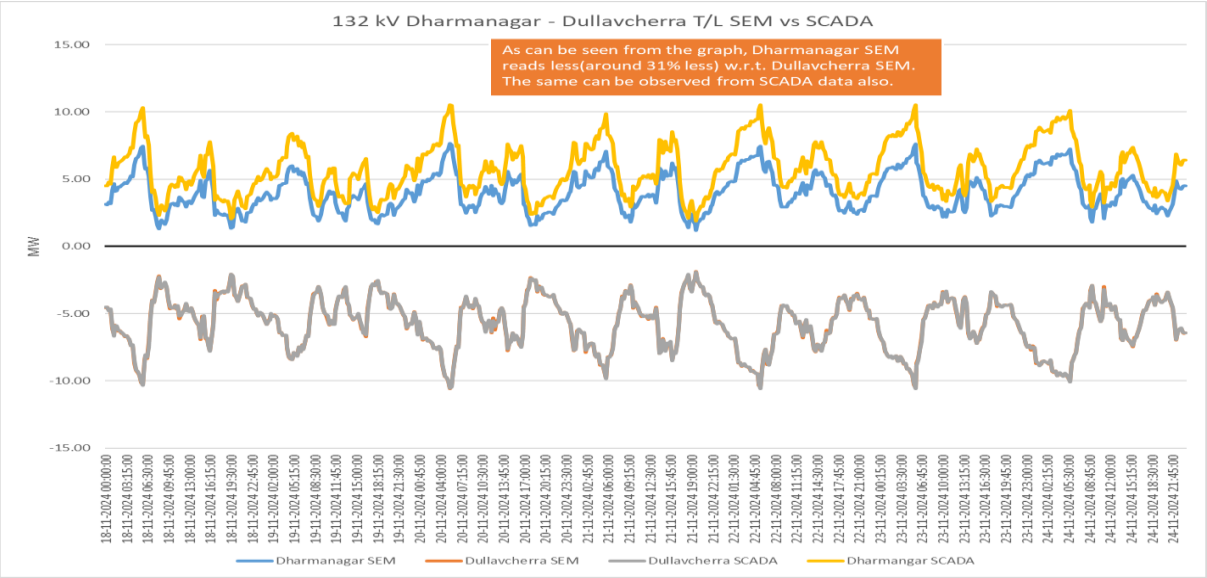
It has been observed that the data received from Dharmanagar end is erroneous and the same neither matches with SCADA data nor with data from Dullavcherra end. Several follow ups have been initiated regarding the matter with utility; however, matter is yet to be resolved.

It is also to be noted that since 222nd OCCM held on 17th 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 225th 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 226th 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 226th and 227th OCCM, the same is being put up in TCC/RPC meeting.



Deliberation of TCC

Forum advised Tripura to resolve the issue and provide required data to NERLDC at earliest.

Deliberation of NERPC

Forum noted as above.

5.17 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 23rd December 2024(for 132 kV Udaipur end of Palatana T/L).

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

In the 225th 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 226th & 227th 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 226th and 227th OCCM, the same is being put up in TCC/RPC meeting.

Deliberation of TCC

Forum advised Tripura to resolve the issue and provide required data to NERLDC at earliest.

Deliberation of NERPC

Forum noted as above.

5.18 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 175th OCCM dated 18th 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

Deliberation of TCC

Forum advised Tripura to resolve the issue and provide required data to NERLDC at earliest.

Deliberation of NERPC

Forum noted as above.

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

6.1. 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 its 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

Deliberation of TCC

Forum noted that the matter needs to be discussed in detail and referred it to sub-committee for further deliberation.

Deliberation of NERPC

Forum referred the matter to sub-committee for further deliberation

6.2. 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 225th OCC meeting.

As per deliberation of 226th OCC meeting held on 20th 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.

Deliberation of TCC

NEEPCO informed, regarding online transfer facility for 132kV bus, that plan for replacement of the isolators will be presented in upcoming OCC meetings. Forum requested NEEPCO to expedite the work**.**

Deliberation of NERPC

Forum requested NEEPCO to expedite the work.

6.3. Unified Real Time Dynamic State Measurement (URTDSM) project phase-II (PowerGrid Agenda):

a. POWERGRID has been assigned responsibility for preparation of DPR for URTDSM Phase-II in the 13th NPC meeting which will include additional PMUs required as per Sub-Committee Report and replacement of existing Control Centres at SLDCs/RLDCs/NLDC
b. The DPR with cost estimate was presented in the 14th NPC meeting. The scope covered the replacement of 32 control centres, 2 new control

centres at NLDC/ RLDCs/ SLDCs and providing 4000 new PMUs as per the PMU placement philosophy of the Subcommittee Report. The cost estimate of the project was Rs. 3922 crores. This was made based on 70:30 funding where 70 % is to be funded by PSDF and 30% from POWERGRID Equity, as it was done for URTDSM Phase-I project.

c. Subsequently it was conveyed by PSDF in April 2024 that the funding would not be available from PSDF hence it was decided to optimize the cost by exploring various options such as centralized control centre at RLDC, reduction in PMUs, reduction in storage retention etc.

d. URTDSM Phase-II proposal was deliberated in 26th NERPC dated 05th July 2024 & Special Meeting dated 28th October 2024 and technically agreed. However, the funding for the project was requested from PSDF.

e. In the 15th NPC meeting it was decided to implement the URTDSM Phase-II project only for the ISTS portion (i.e., NLDCs & RLDCs and PMUs only for Central sector stations) as the system is necessary for Grid management.

f. Accordingly, the cost estimate of Rs.1122 Crores for ISTS portion comprising of control centers (7nos.) of NLDC and RLDCs and PMUs at central sector stations (1070 nos.) based on Uniform philosophy of PMU placement was presented in the 16th NPC Meeting in July 2025.

g. In the 16th NPC it was directed that the proposal be shared with all RPCs/Grid-India. Hence a brief of the project, BOQ, and cost estimate for the project is enclosed as **Annexure-1** for deliberations by the RPCs.

h. Considering that the Phase 1 system is going to complete its 7 years AMC on January 2027, and the hardware/Software are more than 9 years old, the decision to implement the URTDSM phase -2 system is to be taken up on priority.

i. In view of the above, it is requested that URTDSM Phase-II project for ISTS portion may be deliberated as an additional Agenda item in the upcoming NERPC meeting.

j. The cost of the Project shall be shared by all the constituents as per the ISTS sharing agreement.

Members may deliberate and concur the proposal

Deliberation of TCC

Forum noted that the matter needs to be discussed in detail and referred it to sub-committee for further deliberation.

Deliberation of NERPC

Forum noted as above.

6.4. Issuance of NOC for UNMS:

As per requirement of CERC Communication guidelines 2017, state of the art Unified Network Management system has been commissioned under POWERGRID on 04.12.2023. The supply, installation and commissioning works were carried out by M/s Sterlite Technologies Limited.

Accordingly, Taking Over Certificate was issued to M/s Sterlite Technologies Limited on 26.02.2024 with effective date as 04.12.2023. Subsequently, after issuance of Taking over certificate, a request has been made to NERLDC for issuance of Trial Operation Certificate for DOCO of the NER UNMS.

However, the trial operation certificate has not been received till date. Several meetings, follow up were carried out in this matter and the status is as follows:

Sl.No	Description	Remarks

01	Request for Trial Operation Certificate	Made on 29.02.2024 on prescribe format vide mail dated 29.02.2024 and subsequently dated 10.05.2024. Follow up letter/mail dated 25/05/2024 and 12/07/2024 for issuance of Trial Operation Certificate.
02	Requirement of Grid India for TOC	Grid-India has linked issuance of Trial Operation Certificate to completion of punch point as discussed in the meeting dated 16th July'24 between Grid India, POWERTEL and CTUIL to obtain NOC from State Utilities.
03	Meeting For TOC	After resolving pending issues i.r.t UNMS, POWERGRID has approached state utilities for issuance of NOC, details of correspondence done with constituents are enclosed. Even when NOC were not issued by any of the SLDC, matter was raised in various forums i.e. 29th NeTest Meeting dated 05.09.2024, Special meeting dated 19.09.2024, 27th TCC/NERPC meeting dated 07th and 08th Nov'2024 and 30th NeTest meeting dated 24.01.2025. Further, in 31st NeTest meeting dated 04.04.2025, MS, NERPC earnestly requested all states to provide the NOC's at the earliest. During this course, various other points were raised and same was also resolved by POWERGRID,

		updated punch point status as on dated is enclosed).
04	Final Submission	It is once again requested to forum to take up the issue with constituents for issuance of NOC and issuance of Trial Operation Certificate by Grid India to POWERGRID as system has already been commissioned for almost more than 1/12 years. (one and half) and under successful operation since then.

Regarding NOC:

Letter Corresspondence with Constituents by POWERGRID for NOC alongwith the updates.				
SL NO	**Name of Constituents**	**Letter Ref No.**	**NOC Status**	**Remarks**
1	Assam	NESH/ULDC/UNMS/2139 dated 09.08.2024	Pending	Issues resolved. **Integration of Keymile Equipment:** Requirement dropped off due to non-support of OEM. POWERGRID ready to integrate new equipment during AMC period of 07 years, if Keymile is replaced by AEGCL.
2		NEGHY/ULDC/F-509UNMS/2182 dated 19.09.2024		
3		NEGHY/ULDC/F-509UNMS/2221 dated 05.11.2024		
4		NEGHY/ULDC/F-509UNMS/2372 dated 19.02.2025		
5		NEGHY/ULDC/F-509UNMS/2419 dated 07.04.2025		
1	Meghalaya	NESH/ULDC/UNMS/2141 dated 09.08.2024	Pending	All nodes for packages implemented by POWERGRID integrated. Regarding GE equipment: 1. For display of ethernet performance, the feature needs to be enabled in the mux which is to be done by Meghalaya State. 2. NERPSIP NMS: Will be integrated during AMC.
2		NEGHY/ULDC/F-509UNMS/2183 dated 19.09.2024		
3		NEGHY/ULDC/F-509UNMS/2373 dated 19.02.2025		
1	Mizoram	NESH/ULDC/UNMS/2142 dated 09.08.2024	Pending	May be issued as discussed in 31st NeTest Meeting.
2		NEGHY/ULDC/F-509UNMS/2185 dated 19.09.2024		
3		NEGHY/ULDC/F-509UNMS/2224 dated 06.11.2024		
4		NEGHY/ULDC/F-509UNMS/2335 dated 17.01.2025		
5		NEGHY/ULDC/F-509UNMS/2356 dated 08.02.2025		
1	Arunachal Pradesh	NESH/ULDC/UNMS/2139 dated 09.08.2024	Pending	All punch points cleared. To be issued.
2		NEGHY/ULDC/F-509UNMS/2222 dated 05.11.2024		
3		NEGHY/ULDC/F-509UNMS/2334 dated 17.01.2025		
4		NEGHY/ULDC/F-509UNMS/2355 dated 08.02.2025		
1	Manipur	NESH/ULDC/UNMS/2140 dated 09.08.2024	Pending	To be issued.

Regarding issues/punch points by Grid-India:

Sl.No	Description	Remarks
01	Naming Nomenclature Standardization	Under review
02	Audio Alarm Configuration	Complied.
03	Custom Time Selection for Event Filtering	Complied.
04	Public Access to Mail Service	Auto forwarding completed.
05	Mismatch in Link Status in U-NMS	Being undertaken with the OEM.
06	Node Name Display in U-NMS	Complied.
07	Integration of State NMS with U-NMS	State NMS under NERPSIP:

		1. Assam (Hitachi Nodes): Integrated in UNMS. 2. Tripura (ECI Names): Integrated in UNMS. 3. Mizoram (UNMS): NMS reachable to UNMS. 4. Nagaland (UNMS): NMS Reachable to UNMS. 5. Meghalaya: Pending inputs from Hitachi make FOTE. The same is being taken up with Hitachi. After getting inputs, the same will be integrated during AMC. 6. Manipur: POWERGRID vide letter dated 12.05.2025 requested State POWER Department to allow POWERGRID to install and commission NMS at Imphal S/S: Confirmation from Manipur Power Department awaited. Remaining to be done during AMC period.
08	Integration of FOTE for TSPs	**Sterlite Nodes**: NE ID features to be changed. Dependent on the TSP. Action to be taken by M/s Sterlite. **GE Nodes:** Reachable in UNMS. However, SNMP to be enabled by

		Indigrid. Action to be taken by M/s Indigrid. **Apraava:** Mariani integrated. Remaining under process.
09	Integration of VSAT with U-NMS	Completed.

It is to be noted that nos of the issues have closed by POWERGRID and the minor issues remaining will be covered duly during the AMC period of 07 years. As such, NOC may kindly be issued by all states and subsequently it is requested to Grid India Limited to provide the Trial Operation Certificate.

Deliberation of TCC

1.Powergrid informed that Tripura and Nagaland have provided the NOC.

2.Other States were requested to provide NOC for the completed portion

3. Forum exhorted PowerGrid to resolve the concerns raised by remaining states at the earliest and the states were requested to provide NOC after resolution of the punch points.

Deliberation of NERPC

Forum suggested PGCIL to deliberate the matter to States on one to one basis and to expedite the NoC.

Forum noted as above.

6.5. 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.

Deliberation of TCC

Forum noted that the matter needs to be discussed in detail and referred it to sub-committee for further deliberation.

Deliberation of NERPC

Forum referred the matter to sub-committee for further deliberation.

6.6. 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 Dispatch 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 59th & 64th 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 tele protection 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.

Deliberation of TCC

Forum noted that the matter needs to be discussed in detail and referred it to sub-committee for further deliberation.

Deliberation of NERPC

Forum referred the matter to sub-committee for further deliberation

6.7. 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 un-scheduled 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 program like DDUGJY, RDSS and State program.

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.

Deliberation of TCC

Forum noted that the matter needs to be discussed in detail and referred it to sub-committee for further deliberation.

Deliberation of NERPC

Forum referred the matter to sub-committee for further deliberation

6.8. 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:		
Sl.No.	**Diagnostic Tool**	**Purpose**
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 SF6 breakers

In this regard, MSPCL proposes that NERPC recommend the initiative for funding under PSDF (Power System Development Pund) 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.

Deliberation of TCC

Forum noted that the matter needs to be discussed in detail and referred it to sub-committee for further deliberation.

Deliberation of NERPC

Forum referred the matter to sub-committee for further deliberation.

6.9. Proposal for approval of 132/33kV Substations at Chizami and Phek in Nagaland: DoP Nagaland

1. Construction of 132/33 kV 2 x 25 MVA Sub-Station at Chizami, with 132 kV double circuit transmission line from Pfutsero to Meluri along with associated 33 kV lines and 33 kV & 132 kV end equipment.

2. Construction of 132/33 kV 2 x 25 MVA Sub-Station at PHEK, with 132 kV double circuit transmission line from Pfutsero to Phek along with associated 33 kV lines and 33 kV & 132 kV end equipment.

Deliberation of TCC

Forum noted that the matter requires detailed discussion and referred the matter to sub-committee of NERPC for further deliberation.

Deliberation of NERPC

Forum referred the matter to sub-committee for further deliberation.

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