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
Ph. No: 0364 - 2534077
Fax No: 0364 - 2534040
Website: www.nerpc.gov.in

No. NERPC/OP/Committee/2022/*9190-9258* Date: November 30, 2022

To,

1. Hon'ble Chief Minister & In-charge of Power, Govt. of Nagaland, Kohima - 797001
2. Hon'ble Dy. Chief Minister & In-charge of Power, Govt. of Arunachal Pradesh, Itanagar - 791 111
3. Hon'ble Dy. Chief Minister & In-charge of Power, Govt. of Meghalaya, Shillong – 793001
4. Hon'ble Minister of Power, Govt. of Assam, Dispur - 781006
5. Hon'ble Minister of Power, Govt. of Manipur, Imphal – 795 001
6. Hon'ble Minister of Power, Govt. of Mizoram, Aizawl - 796 001
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. Principal 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. Secretary (Power), Govt. of Tripura, Agartala – 799001
15. Chairman & Managing Director, MeECL, Lumjingshai, S. R. Road, Shillong - 793 001
16. Chairman & Managing Director, NEEPCO Ltd., Lower New Colony, Shillong - 793 003
17. Director (Technical), NHPC Ltd., NHPC Complex, Sector-33, Faridabad - 121 003
18. Director (Coml.), NTPC Ltd. NTPC Bhawan, Scope Complex, Institutional Area, Lodhi Road – 03
19. Managing Director, OTPC, 6th Floor, A-Wing, IFCI Tower -61, Nehru Place, New Delhi - 110019
20. Director (Operation), POWERGRID, Saudamini, Plot No. 2, Sector-29, Gurgaon, Haryana – 122 001
21. CEO, NVVNL, Core 5, 3rd Floor, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi – 03
22. Chairman & Managing Director, PTC, NBCC Tower, 15 Bhikaji Cama, Place, New Delhi – 110066
23. Managing Director, APDCL, Bijuli Bhavan, Paltan Bazar, Guwahati - 781 001
24. Managing Director, APGCL, Bijuli Bhavan, Paltan Bazar, Guwahati - 781 001
25. Managing Director, AEGCL, Bijuli Bhawan, Paltan Bazar, Guwahati – 781 001
26. Managing Director, MSPCL, Electricity Complex, Keishampat, Imphal – 795 001
27. Managing Director, MSPDCL, Secure Office Bldg. Complex, Near 2nd MR Gate, Imphal – 795 001
28. COO, CTUIL, Plot No.2, sector-29, Gurgaon, Haryana – 122001
29. ED, NLDC, B/9, Qutub Institutional Area, Katwaria Sarai, New Delhi – 16
30. ED, NERLDC, Dongtieh-Lower Nongrah, Lapalang, Shillong- 793006
31. COO, ENICL, IndiGrid, Unit No. 101, Windsor, Off CST Road, Vidyanagari Marg, Kalina, Santacruz East, Mumbai 400 098

**Sub: Minutes of the 23rd TCC & 23rd NER Power Committee Meetings – Reg.**

Sir/Madam,

Please find enclosed herewith the minutes of the 23rd TCC meeting and 23rd NER Power Committee meeting held on 18th & 19th November 2022 respectively at "Hotel Double Tree by Hilton" in Goa for your kind information and necessary action.

भवदीय / Yours faithfully,

(बि. लिंगखोइ / B. Lyngkhoi)
सदस्य सचिव / Member Secretary

**Copy to:**

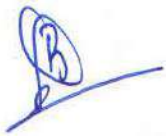
1. PS to Chairman, NERPC and Hon'ble Dy. Chief Minister & In-charge of Power, Govt. of Tripura, Agartala-01
2. PS to TCC Chairman and Manging Director, TSECL, Tripura, Agartala- 799001

**Copy for kind information to:**

1. Director (Distribution), MePDCL, Lumjingshai, S.R. Road, Shillong – 793 001
2. Director (Transmission), MePTCL, Lumjingshai, S.R. Road, Shillong – 793 001
3. Director (Generation), MePGCL, Lumjingshai, S.R. Road, Shillong – 793 001
4. Director (Tech.), TSECL, Bidyut Bhaban, Banamalipur, Agartala -799 001.
5. Director (Generation), TPGCL, Bidyut Bhaban**,** Banamalipur, Agartala -799 001.
6. Director (Tech.), NEEPCO Ltd., Lower New Colony, Shillong-793 003.
7. Regional ED (East –II), NTPC, 3rd Floor, OLIC Bldg., Pl No- N.17/2, Nayapalli, Bhubaneswar-12
8. Executive Director, NERTS, PGCIL, Lapalang, Shillong - 793006
9. Executive Director (Comml.), NEEPCO Ltd., Lower New Colony, Shillong-793003.
10. Executive Director (O&M), NEEPCO Ltd., Lower New Colony, Shillong-793003.
11. Executive Director (O&M), NHPC, NHPC Office Complex, Faridabad-121003.
12. Executive Director (Marketing), PTC, NBCC Tower, 15 Bhikaji Cama, Place, New Delhi – 110066
13. Chief Engineer (GM), CEA, 6th Floor, Sewa Bhawan, R.K.Puram New Delhi-110066.
14. Engineer-in-Chief, P&E Dept., Govt. of Mizoram, Aizawl – 796 001
15. Chief Engineer (TP&MZ), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 1
16. Chief Engineer (Commercial) -cum- CEI, Deptt. of Power, Govt. of Arunachal Pradesh, Itanagar- 791 111
17. CGM (AM), NERTS, POWERGRID, Lapalang, Shillong – 793006
18. VP (Plant), OTPC, Palatana, P.O Udaipur, Gomati Dist., Tripura – 799105
19. GM (BD), NVVNL, Core 5, 3rd Floor, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi-3
20. Group GM, Loktak HE Project, NHPC, Komkeirap, Manipur-795124.
21. CGM, AEGCL, Bijuli Bhawan, Paltan Bazar, Guwahati – 781 001
22. CGM, APGCL, Bijuli Bhawan, Paltan Bazar, Guwahati – 781 001
23. CGM, APDCL, Bijuli Bhawan, Paltan Bazar, Guwahati – 781 001
24. CGM (LDC), SLDC Complex AEGCL, Kahelipara, Guwahati-781019.
25. Head- Regulatory, ENICL, IndiGrid, 5th Floor, JMD Galleria Building, Sector-48, Gurgaon 122018.
26. Head of SLDC, Dept. of Power, Govt. of Arunachal Pradesh, Itanagar-791111
27. Head of SLDC, Dept. of Power, Govt. of Manipur, Keishampat, Imphal-795001
28. Head of SLDC, MeECL, Lumjingshai, S.R. Road, Shillong-793001
29. Head of SLDC, P&E Dept., Govt. of Mizoram, Aizawl-796001
30. Head of SLDC, Dept. of Power, Govt. of Nagaland, Dimapur
31. Head of SLDC, TSECL, Agartala – 799001

**Special Invitee(s):**

32. Member Secretary, ERPC, 14 – Golf Club Road, Tollygunge, Calcutta – 700 033
33. Member Secretary, NRPC, NRPC Complex, 18-A, S.J.S. Marg, Katwaria Sarai, New Delhi – 16
34. Member Secretary, WRPC, MIDC Area, Marol, Andheri (E), Mumbai – 400 093
35. Member Secretary, SRPC, 29 – R.C. Cross Road, Bangalore – 560 009
36. MD, NETC, #2C, 3rd Floor, D-21, DMRC Building, Corporate Park, Sector-21, Dwarka, Delhi-77



सदस्य सचिव / Member Secretary

# Government of India
# Ministry of Power
## North Eastern Regional Power Committee

# RECORD NOTE OF DISCUSSION
# OF
# 23rD TCC MEETING
# &
# 23RD NERPC MEETING

***(UNDER THE AEGIS OF NHPC LTD)***

**Venue: Hotel Double Tree by Hilton, Panaji, Goa**

**Date (TCC): 18th November, 2022**

**Date (NERPC): 19th November, 2022**

## A B B R E V I A T I O N

| | |
|---|---|
| A | Amperes |
| ACSR | Aluminum Conductor Steel Reinforced |
| ACS | Average Cost of Supply |
| ADB | Asian Development Bank |
| ADDCAP | Additional Capital Expenditure |
| AEGCL | Assam Electricity Grid Corporation Limited |
| AGBPP | Agartala Gas Based Power Plant |
| AIIB | Asian Infrastructure Investment Bank |
| AIS | Air Insulated Substation |
| AICTE | All India Council for Technical Education |
| AMC | Annual Maintenance Contract |
| AP / Ar. P | Arunachal Pradesh |
| APDCL | Assam Power Distribution Company Limited |
| APTEL | Appellate Tribunal For Electricity |
| ARR | Average Revenue Realized |
| ATC | Available Transfer Capability |
| AT&C | Aggregate Technical and Commercial Losses |
| AWS | Automatic Weather Station |
| A/R | Auto-Reclosure |
| BEC | Bid Evaluation Committee |
| BHEL | Bharat Heavy Electricals Limited |
| BNC | Biswanath Chariali |
| BOQ | Bill of Quantities |
| BgTPP/ BTPS | Bongaigaon Thermal Power Project/ Station |
| CB | Circuit Breaker |
| CBG | Combined Bank Guarantee |
| CBIS | Capacity Building & Institutional Strengthening |
| CCM | Commercial Sub-Committee Meeting |
| CEA | Central Electricity Authority |
| CERC | Central Electricity Regulatory Commission |
| Ckt / ckt | Circuit |
| CMETS | Consultation Meeting For Evolving Transmission Schemes |
| CoD/ DoCO | Date of Commercial Operation |
| CPRI | Central Power Research Institute |
| CRP / C&R Panel | Control & Relay Panel |
| CS | Central Sector |
| CSST&DS-AP | Comprehensive Scheme for Strengthening of Transmission & Distribution system in Arunachal Pradesh |
| CVT | Capacitor Voltage Transformer |
| CT | Current Transformer |
| CTU | Central Transmission Utility |
| CTUIL | Central Transmission Utility of India Ltd |
| DC | Direct Current |
| D/C | Double Circuit |
| DDUGJY | Deen Dayal Upadhyaya Gram Jyoti Yojana |
| DGA | Dissolved Gas Analysis |
| DHEP | Doyang Hydro Electric Project |
| DICs | Designated ISTS Customers |
| DISCOMs | Distribution Companies |
| DLP | Defect Liability Period |
| DM | Double Main Bus Scheme |
| DMS | Distribution Management System |
| DMP | Dibang Multipurpose Project |
| DoNER | Development of North Eastern Region |
| DoP / DOP | Department of Power |
| DPR | Detail Project Report |
| DSM | Deviation Settlement Mechanism |
| E/F | Earth Fault |
| EAP | Externally Aided Project |
| EHV | Extra High Voltage |
| EMS | Energy Management System |
| EOL | End of Life |
| EPS | Electric Power Survey |
| ERS | Emergency Restoration System |
| FDS | Frequency Domain Spectroscopy |
| FTC | First Time Charging |
| FY | Financial Year |
| GAIL | Gas Authority of India Limited |
| GENCO | Generation Company |
| GIS | Gas Insulated Substation |

| | |
|---|---|
| GNA | General Network Access |
| GOI | Government of India |
| GSS | Grid Sub Station |
| GST | Goods and Services Tax |
| GTG | Gas Turbine Generator |
| GTP | Gas Turbine Plant |
| GW | Giga Watt |
| HEP | Hydro Electric Project |
| HVDC | High Voltage Direct Current |
| HPO | Hydro Power Purchase Obligation |
| HPS | Hydro Power Station |
| HQ | Head Quarter |
| HTLS | High temperature Low Sag |
| IEX | Indian Energy Exchange |
| ICT | Inter Connecting Transformer |
| IMD | India Meteorological Department |
| IPDS | Integrated Power Development Scheme |
| IPPs | Independent Power Producers |
| IR | Insulation Resistance |
| ISTS | Inter State Transmission System |
| IT | Information technology |
| JICA | Japan International Cooperation Agency |
| JV | Joint Venture |
| KM / Km/ km | Kilometer |
| KV / kV | Kilo Volt |
| KWH / kwh | Kilo Watt Hour |
| LADF | Local Area Development Fund |
| LC | Letter of Credit |
| LDP | Line Differential Protection |
| LILO | Loop In Loop Out |
| LoA | Letter of Award |
| LTA | Long Term Access |
| MeECL | Meghalaya Energy Corporation Limited |
| MePDCL | Meghalaya Power Distribution Corporation Limited |
| MePGCL | Meghalaya Power Generation Corporation Limited |
| MePTCL | Meghalaya Power Transmission Corporation Limited |
| MLHEP | Myntdu Leshka Hydro Electric Project |
| MNRE | Ministry of New and Renewable Energy |
| MOM | Minutes of Meeting |
| MoP | Ministry of Power |
| MoU | Memorandum of Understanding |
| MSPCL | Manipur State Power Company Limited |
| MSPDCL | Manipur State Power Distribution Company Limited |
| MTOA | Medium Term Open Access |
| MVA | Mega Volt Ampere |
| MVAR | Mega Volt Ampere Reactive |
| MW | Mega Watt |
| MYT | Multi Year Tariff |
| NCT | National Committee on Transmission |
| NDC | Nationally Determined Contribution |
| NE / NER | North Eastern Region |
| NEC | North Eastern Council |
| NEEPCO | North Eastern Electric Power Corporation Limited. |
| NERES | North Eastern Region Expansion Scheme |
| NERLDC | North Eastern Regional Load Dispatch Centre |
| NERPC | North Eastern Regional Power Committee |
| NERPCTP | North Eastern Regional Power Committee Transmission Planning |
| NERPSIP | North Eastern Region Power System Improvement Project |
| NERSCT | North Eastern Regional Standing Committee on Transmission |
| NERSS | North Eastern Region Strengthening Scheme |
| NERTS | North Eastern Regional Transmission System |
| NESIDS | North East Special Infrastructure Development Scheme |
| NETC | North East Transmission Company Limited |
| NETeST | NER Telecommunication, SCADA & Telemetry Coordination Sub-Committee |
| NHPC | National Hydroelectric Power Corporation Limited |
| NLDC | National Load Dispatch Centre |
| NoC | No Objection Certificate |
| NPC | National Power Committee |
| NPTI | National Power Training Institute |
| NTPC | National Thermal Power Corporation Limited |
| NVVN | NTPC Vidyut Vyapar Nigam |

| | |
|---|---|
| | Limited |
| O/C | Over Current |
| OCC | Operation Coordination Sub-Committee |
| OEM | Original Equipment Manufacturer |
| ONGC | Oil and Natural Gas Corporation |
| O&M | Operation and Maintenance |
| OPGW | Optical Ground Wire/Optical Fibre |
| OSD / O/s | Outstanding Dues |
| OTPC | ONGC Tripura Power Company Limited |
| P&ED | Power and Electricity Department |
| PFC | Power Finance Corporation Limited |
| PG/ PGCIL/ Powergrid | Power Grid Corporation of India Limited |
| PLCC | Power Line Carrier Communication |
| PLI | Performance Linked Incentive |
| PMO | Prime Minister's Office |
| PM KUSUM | Pradhan Mantri Kisan Urja Suraksha Evam Utthan Mahabhiyan |
| POC | Point of Connection |
| POSOCO | Power System Operation Corporation Limited |
| P/S | Power Station |
| PSDF | Power System Development Fund |
| PT | Voltage (Potential) Transformer |
| PPA | Power Purchase Agreement |
| RAM | Random Access Memory |
| RAPDRP | Restructured Accelerated Power Development and Reforms Program |
| RCE | Revised Cost Estimates |
| RDSS | Revamped Distribution Sector Scheme |
| RECPDCL | REC Power Development and Consultancy Limited |
| RESCO | Renewable Energy Service Company |
| RHEP | Ranganadi Hydro Electric Project |
| RLDC | Regional Load Dispatch Centre |
| RMC | Regional Met Centre |
| RMSE | Root Mean Square Error |
| RoW | Right of Way |
| RPC | Regional Power Committee |
| RPO | Renewable Purchase Obligation |
| RTM | Regulated Tariff Mechanism |
| RTU | Remote Terminal Unit |
| R&M | Renovation and Modernisation |
| R&U | Renovation and Upgradation |
| SAS | Substation Automation System |
| SAMAST | Scheduling Accounting Metering and Settlement of Transactions in Electricity |
| SAUBHAGYA | Pradhan Mantri Sahaj Bijli Har Ghar Yojana |
| S/C | Single Circuit |
| S/S / Ss | Sub Station |
| SCADA | Supervisory Control and Data Acquisition |
| SCM | Standing Committee Meeting |
| SHP | Small Hydro Project |
| SLDC | State Load Dispatch Centre |
| SLSC | State level Screening Committee |
| SMT | Single Main and Transfer Bus Scheme |
| STG | Steam Turbine Generator |
| SOC | Security Operation Center |
| SOE | Sequence of Events |
| SPS | System Protection Scheme |
| SPV | Special Purpose Vehicle |
| Stg | Stage |
| STOA | Short Term Open Access |
| S/Y | Switchyard |
| TBCB | Tariff Based Competitive Bidding |
| TCC | Technical Coordination Committee |
| TESG | Techno-Economic Subgroup |
| TFR | Tower Footing Resistance |
| TL | Transmission Line |
| TLSA | Transmission Line Surge Arrester |
| TSECL | Tripura State Electricity Corporation Limited |
| TS | Transmission System |
| ULDC | Unified Load Dispatch Scheme |
| VSAT | Very Small Aperture Terminal |
| VT | Vertical Turbine |
| YTC | Yearly Transmission Charge |

# CONTENTS

# ANNEXURES

# SUMMARY RECORD OF DISCUSSIONS

# 23RD TECHNICAL COORDINATION COMMITTEE MEETING

# &

# 23RD NORTH EASTERN REGIONAL POWER COMMITTEE MEETING

The 23rd TCC Meeting and the 23rd NER Power Committee meeting were held on 18th November, 2022 and 19th November, 2022 respectively at Hotel "Double Tree by Hilton", Panaji, Goa. The meetings were hosted by NHPC Ltd.

The list of participants is enclosed at **Annexure – I & II.**

## I : PROCEEDINGS OF THE 23RD TCC MEETING

The meeting started with welcome address by **Shri. Rajesh Sharma, Executive Director (O&M), NHPC**. Shri Rajesh Sharma extended a warm welcome to all TCC members and participants to the 22nd TCC meeting. He stated that presently, NHPC has only one operational hydro generating station in the region - 105 MW Loktak Hydro Power Station, which was commissioned in 1983. As the Power Station has completed its useful life, the same is being taken up for Renovation & Modernization and Life extension to continue serving the region. He also informed that the 2000 MW Subansiri Lower Project is already under advanced stage of construction and first unit of the project is expected by middle of next year. Further, other projects including 2880 MW Dibang Project are also coming up shortly. He thanked NERPC for giving them the opportunity to host the august meeting for the benefit of the Region and wished all delegates a comfortable stay in Goa.

**Shri Debasish Sarkar, Chairman, TCC & MD, TSECL** addressed the 23rd TCC meeting. In his address, Shri Sarkar stated that for the economic development of the North-Eastern Region, strategies have been formulated by the Government of India for removal of infrastructure bottlenecks and creating a conducive environment for overall progress in all aspects of the region including progress in the power sector. He also stated that with continual improvement of infrastructure and communication facilities, the North East Region stands to become the Power House of the country by utilizing its power potential. To build up congestion-free transmission corridor and

robust transmission system, adequate system strengthening would also be required in NER constituent states. Therefore, it is important that transmission development in the NER states is also taken up hand in hand in a phased manner for power evacuation adequately through intra and inter-state grid. He further added that several projects conceptualized and forwarded by this forum have been instrumental in setting in motion a new economic endeavour aimed at removing the basic bottlenecks that stood in the way of normal development of the region and has ushered in an era of new hope in the region full of great potentialities.

His speech is placed at **Annexure – III**.

**Sh. B. Lyngkhoi, Member Secretary, NERPC** welcomed all delegates of the 23rd TCC meeting on behalf of NERPC. He expressed immense gratitude to NHPC Limited for hosting the 23rd TCC & 23rd NERPC meetings in Goa and for making excellent arrangement and providing a comfortable stay for the delegates.

Thereafter, Chairman, TCC requested Member Secretary, NERPC to take up the agenda items for discussion.

The meeting concluded with the vote of thanks to the Chair.

## II : PROCEEDINGS OF THE 23RD NERPC MEETING

The 23rd NER Power Committee meeting commenced with a traditional welcome and bouquets presentation to dignitaries. This was followed by ceremonial lighting of lamps by Shri Jishnu Dev Varma, Chairman, NERPC & Hon'ble Dy. Chief Minister, Govt. of Tripura, Shri Prestone Tynsong, Hon'ble Dy. Chief Minister & I/c Power, Govt. of Meghalaya, Shri B. Lyngkhoi, Member Secretary, NERPC, Shri D. Sarkar, TCC Chairman & MD, TSECL and Shri Y. K. Chaubey, CMD, NHPC Ltd.

**Shri Y. K. Chaubey, CMD, NHPC Limited** delivered welcome address. In his brief address, Shri Choubey extended warm welcome to all delegates in the 23rd NERPC meeting and stated that it was a matter of great privilege for NHPC to host the 23rd TCC and 23rd NERPC meeting. He sincerely hoped that all the participants are having comfortable stay at the venue. The speech of CMD, NHPC is placed at **Annexure-IV**

**Shri Jishnu Dev Varma, Chairman, NERPC & Hon'ble Dy. Chief Minister, Govt. of Tripura** addressed the 23rd NER Power Committee and stated that it's a matter of

great privilege to see all delegates in this meeting in GOA, the beautiful and happening State of the country. He hoped that the meeting would provoke deep thoughts, infuse new ideas and provide innovative ways in reducing existing gaps in development of NE region. He also stated that the meeting would help in improving and transforming the power sector of the region to match with the best infrastructure in the country. India as a nation can be a developed country only when the North Eastern Region also prospers in every aspect of socio-economic development.

On behalf of NERPC, he expressed sincere gratitude to the Government of India for showing positive approach in extending constant and continued support to develop the power sector in the North Eastern Region, at par with other parts of the country. He mentioned about the 'North Eastern Region Power System Improvement Project' (NERPSIP) covering six NE States and 'Comprehensive Scheme for strengthening of Transmission & Distribution in Arunachal Pradesh and Sikkim' being two major transmission infrastructure development projects in the region. He impressed upon the implementing agency of these projects, namely Power Grid Corporation of India Limited (PGCIL), to expedite the remaining works and complete the same by the end of this year.

He also stated that the whole North Eastern Region is rich in natural resources and full of economic potential. It is a region joined together by historical and cultural roots. With continuous improvement in infrastructure and connectivity, the North East Region stands to become the power house of the country by utilising its rich natural resources and surplus power potential.

Full text of the speech of Hon'ble Dy. Chief Minister, Govt. of Tripura & Chairman, NERPC is placed at **Annexure – V**.

**Shri Prestone Tynsong, Dy. Chief Minister & I/c Power, Govt. of Meghalaya**, in his brief address, expressed gratitude to NERPC for their continuous efforts towards Power sector improvement for the benefit of the people of the State and the region. He stated that he is delighted to be a part of this Committee and hope to be able to arrive at important decisions which will enable all to jointly achieve their common objective of smooth and robust operation of the regional power system. While the North Eastern States faced many issues, the committee has enough leverage to see that the

region uses its huge potential to contribute to the growth of the country especially through the power sector.

Full text of the speech of Hon'ble Dy. Chief Minister, Govt. of Meghalaya is placed at **Annexure – VI**.

**Shri B. Lyngkhoi, Member Secretary, NERPC** welcomed and expressed gratitude to all delegates for their participations. During his brief speech, Shri Lyngkhoi informed about the implementation of four new Special Protection schemes in the region including SPS at RHEP to ensure smooth evacuation of Pare & RHEP generation. He also mentioned about the Automatic Weather Station (AWS) installation works which are under progress in NER states. In Tripura, the AWS installation work has been completed. He also highlighted the following MoP/CERC's regulations which have been made effective since last NERPC meeting:

- Ministry of Power's Late payment surcharge (LPS) has been made effective which is likely to bring commercial discipline amongst the entities.
- General Network Access (GNA) regulation has been made effective from 15.10.2022. which aims to delink Schedule Access and Transmission Access. This shall significantly improve the transmission planning.

His speech is placed at **Annexure – VII**.

After this Chairman, NERPC requested Member Secretary, NERPC to take up the agenda for discussion.

The meeting concluded with the vote of thanks by **Shri S. M. Aimol, Director, NERPC** on behalf of NERPC Secretariat, and by **Shri Suraj Dhiman, GM, NHPC** on behalf of NHPC Limited.

# RECORD NOTES OF DISCUSSION OF 23RD TCC & 23RD NERPC MEETINGS

## III : CONFIRMATION OF THE MINUTES OF 22ND TCC MEETING & 22ND NERPC MEETING

The minutes of the 22nd Technical Coordination Committee Meeting and the 22nd North Eastern Regional Power Committee (NER Power Committee) meeting held on 26th & 28th March, 2022 respectively in Guwahati were circulated vide letter no. NERPC/OP/Committee/2022/497-571 dated 12th April,2022.

**No comments or observations were received from any of the constituents.**

**The NER Power Committee thus confirmed the minutes of the 22nd TCC and the 22nd NERPC meetings.**

# CATEGORY – A : ITEMS DISCUSSED AND APPROVED BY THE COMMITTEE

## ITEM NO. A.01 : CONSTRUCTION OF 2ND TRANSMISSION LINE TO TUIRIAL POWER STATION OF NEEPCO: – NEEPCO

NEEPCO is facing problem in operating 2x30 MW power station with only one power evacuation line i.e. 132 KV single Circuit Bawklang (Kolasib) - Tuirial line. The matter has been discussed with Power and Electricity Dept. Govt of Mizoram on various occasions in the past and the Govt. of Mizoram has agreed to construct the same.

However, NEEPCO has observed that till date no progress on ground has been made for construction of the second circuit. It may please be noted that a generating station which is based on reservoir operation cannot operate for long with a single evacuation transmission line and is also not fulfilling the N minus 1 condition. There should be redundancy in power evacuation system as per the Grid code.

It may please be noted that NEEPCO has sufficient numbers of line bays in its switch yard for smooth evacuation as per requirement. It has been observed that during rainy season, in the event of the lone line outage, load throw off of the Units takes place and the reservoir may spill over for non-availability of power evacuation, which is an avoidable national loss.

NEEPCO requests through this forum for early construction of the 2nd evacuation transmission line for Tuirial HPS by Mizoram for safe and smooth operation of the Tuirial Hydro Electric power station.

It is to be noted that in the 1st NERPCTP meeting held on 08th November, 2019 it was decided that second circuit of 132kV Tuirial – Kolasib shall be constructed by P&ED Govt. of Mizoram under intra-state transmission system.

***Deliberation of the TCC***

EE(SLDC), P&ED Mizoram informed that administrative approval amounting to ₹ 3908.45 lakhs have been obtained out of which expenditure sanctioned amounting to ₹450 lakhs have been received. During current financial year fund allocation amounting to ₹1500 lakhs is being sought to the government for funding.

ED(O&M), NEEPCO informed that as per letter of CE(Distribution), P&ED Mizoram dated 31.08.2022 that the construction is paused due to lack of funds. Further she stated that upon outage of 132kV Turial - Kolasib during peak season spillage occurs which is a national loss. Thus, she requested for early commissioning of the second circuit of 132kV Turial – Kolasib.

After detailed deliberation the forum referred the matter to RPC for discussion and commitment of deadline for completion of 132kV Turial – Kolasib second circuit.

***Deliberation of the RPC***

Commissioner & Secretary, Power & Electricity Department, Mizoram informed that the 2nd circuit of 132kV Tuirial- Kolasib Transmission line is being constructed by P&ED, Mizoram. He further stated that the physical progress of the project is about 15% (39.6km) only. He informed that the construction of the transmission line is expected to be completed by later part of FY 23-24. After detailed deliberation, the forum referred the matter for monitoring in Sub-Committee of NERPC.

***The RPC noted as above.***

***Action: P&ED Mizoram***

| | | |
|---|---|---|
| **ITEM NO. A.02** | **:** | **STATUS OF OPTICAL-FIBER COMMUNICATION LINKS UNDER ON-GOING NERPSIP AND COMPREHENSIVE ARUNACHAL PRADESH SCHEMES- NERLDC** |

Under world-bank funded NERPSIP project and Comprehensive Arunachal Pradesh scheme, OPGW cables of 5,200 kms. and 4,350 kms. respectively are being laid at various sections along with associated end-equipment. However, the progress of project is slow due to various reasons since the period of inception of project i.e. around 2014.

POWERGRID (consultant of project) may be urged to expedite the project at the earliest for benefit of the NER constituents as well as regional power system operation.

***Deliberation of the TCC***

Sr. GM(SL) NERLDC informed that the NERPSIP project was awarded around 2016 with initial completion schedule of Dec 2018 but benefit out of the communication network under this scheme is yet to be noticed. Only two communication links

namely 132 kV N. Lakhimpur – Dhemaji and 132 kV N. Lakhimpur-Gohpur have been commissioned under NERPSIP. Similar case might be there for Arunachal Pradesh Comprehensive Scheme also. It was deliberated that Links are to be made complete in all respect so that maximum benefit could be derived out of these schemes.

The forum directed POWERGRID to submit the detailed status of Communication Schemes being executed under NERPSIP and Comprehensive Scheme in the RPC meeting.

***Deliberation of the RPC***

Director (O), POWERGRID stated that there has been some delay in the completion of the communication links under NERPSIP as well as Comprehensive Scheme of Arunachal Pradesh due to various issues and challenges. He informed that under NERPSIP, 1800km out of sanctioned 5200km OPGW has been laid and the balance works are expected to be completed by Mar'23.

He further informed that under Comprehensive Scheme of Arunachal Pradesh, 115km out of sanctioned 370km OPGW has been laid and the balance would be completed as per following schedule:

- OPGW on existing lines to be laid by Mar'23
- For 23 nos of new lines OPGW to be completed by Mar'23
- For 13 nos of new lines OPGW to be completed by Mar'24
- For 33kV lines, for 70 nos lines OPGW to be completed by Mar'23 and balance by Mar'24

The forum advised PGCIL to strictly adhere to the deadline as above. After detailed deliberation the forum referred the matter for monitoring in Sub-Committee of NERPC.

***The RPC noted as above.***

**ITEM NO. A.03 : SHIFTING OF PALATANA - SURAJMANINAGAR (TSECL) 400 KV D/C LINE (OPERATED AT 132KV) TO THE 400/132KV ISTS S/S AT SURAJMANINAGAR: - NERLDC**

During 22nd TCC & 22nd NERPC Meeting held on 26th & 28th March, 2022 at Guwahati, the TCC forum decided the following:

a) The scope of LILO of 400kV Palatana – Surajmaninagar (ISTS) at Surajmaninagar (TSECL) by POWERGRID under RTM to be deleted upon confirmation of dropping of 400kV upgradation of Surajmaninagar (TSECL) by Tripura. However, tariff for this work as admissible shall be provided to POWERGRID.

b) HTLS upgradation of 132kV Surajmaninagar (ISTS) – Surajmaninagar (TSECL) to be expedited by TSECL

c)TSECL to select one of the suggested alternatives i.e. additional circuit of 132kV Surjamaninagar – Surjamaninagar OR LILO of 132 kV (2nd) Surjamaninagar (TSECL) – Bodhjungnagar (TSECL) at Surjamaninagar (ISTS) with HTLS upgradation of Surjamaninagar (ISTS) – Surjamaninagar (TSECL) and revert back at the earliest to NERPC

Regarding diversion of Bangladesh power supply to Surjamaninagar (ISTS) the forum noted that as power supply from Tripura to Bangladesh has been extended upto 2026, Bangladesh interconnection will remain connected from Surajmaninagar (TSECL) and shifting proposal may be dropped.

During the same meeting, following are the highlights after deliberation at RPC:

a) The Upgradation of 132kV Surjamaninagar (TSECL) to 400 kV will be awarded by JV company being set up with POWERGRID and JV formation will take around 6-8 months

b) Member Secretary, NERPC stated that the scope of LILO of 400 kV Palatana – Surjamaninagar (ISTS) at Surjamaninagar (TSECL) by POWERGRID under RTM to be dropped for the time being, however, the tariff for upgradation work (undertaken in NERSS XIV) of 132 kV Palatana – Surjamaninagar to 400 kV and termination at Surjamaninagar (ISTS) shall be allowed to POWERGRID as admissible

c) Further, Member Secretary, NERPC mentioned that power supply to Bangladesh

may be continued from Surjamaninagar (TSECL) till 2026 as decided in the 22nd TCC Meeting. Regarding upgradation of 400 kV Surajmaninagar (TSECL) by Tripura, he sought the view of the forum.

d) Hon'ble Chairman, NERPC stated that since Tripura will upgrade the existing 132 kV Surjamaninagar S/S to 400 kV after JV formation, the same may be kept in abeyance and review in next TCC/NERPC Meeting.

It is requested for review the following during 23rd TCC/NERPC Meeting:

i) Formation of the JV :

ii) HTLS upgradation of 132 kV Surajmaninagar (ISTS) – Surajmaninagar (TSECL) line:

iii) Additional circuit of 132 kV Surjamaninagar – Surjamaninagar OR LILO of 132 kV (2nd) Surjamaninagar (TSECL) – Bodhjungnagar (TSECL) at Surjamaninagar (ISTS) with HTLS upgradation of Surjamaninagar (ISTS) – Surjamaninagar (TSECL)

***Deliberation of the TCC***

(i) Formation of JV: GM, TSECL informed that JV will be formed by Dec'22. After signing of MoU, JV would be functional from 01.04.2023. In view of urgent completion of 400kV Surjamaninagar the matter was referred to RPC for deliberation. ***Referred to RPC for deliberation.***

(ii) HTLS upgradation of 132 kV Surajmaninagar (ISTS) – Surajmaninagar (TSECL) line: GM, TSECL informed that the proposal has been submitted to PSDF. However, TESG has given few observations on T&P components and estimate to be revised. Sanction is expected by Dec'22. ***For information to RPC***

(iii) GM, TSECL informed that HTLS for the stated lines has been considered under the PSDF funded project. Further, LILO of 132kV SMNagar – Budhjangnagar at SMNagar(ISTS) (as per recommendation of 10th CMETS) will be taken up later on after necessary funds have been earmarked. ***For information to RPC***

***Deliberation of the RPC***

Secretary (Power), Tripura informed that formation of STU is on verge of completion and soon after that, a Joint Venture (JV) company will be formed. He firmly stated that JV will be operational from April 2023. He added that the JV company will take up the work of upgradation of 132kV Surjamaninagar S/S to 400 kV S/S.

After detail deliberation, it came to light that the upgradation of 123kV

Surjamaninagar S/S to 400 kV S/S is unlikely to come within next one & half years.

Hence it was decided that operation of LILO of 400 kV Palatana – Surjamaninagar (ISTS) at Surjamaninagar (TSECL) by POWERGRID is to be dropped.

***The RPC noted as above.***

| | | |
|---|---|---|
| **ITEM NO. A.04** | **:** | **LILO of 400kV Palatana –Surjamaninagar(ISTS) at Surjamaninagar(TSECL) by POWERGRID under NERSS XIV.: - POWERGRID** |

Construction works related to LILO of 400kV Palatana –Surjamaninagar(ISTS) at proposed 400KV Surjamaninagar(TSECL) is taken up by POWERGRID under NERSS XIV project & accordingly the works related to transmission line & substation extension were awarded.

Further, since upgradation of Surjamaninagar(TSECL) Substation to 400KV by TSECL is yet to be implemented, works related to construction of Bays at Surjamaninagar(TSECL) Substation covered under scope of NERSS-XIV project under execution by POWERGRID too could not be commenced & has been kept on abeyance.

During the 22nd TCC & 22nd NERPC Meeting, it was discussed that the scope of LILO of 400kV Palatana –Surjamaninagar(ISTS) at Surjamaninagar(TSECL) by POWERGRID under RTM to be dropped for the time being, however, the tariff for upgradation work (undertaken in NERSS XIV) of 132kV Palatana – Surjamaninagar to 400kV and termination at Surjamaninagar(ISTS) shall be allowed to POWERGRID as admissible.

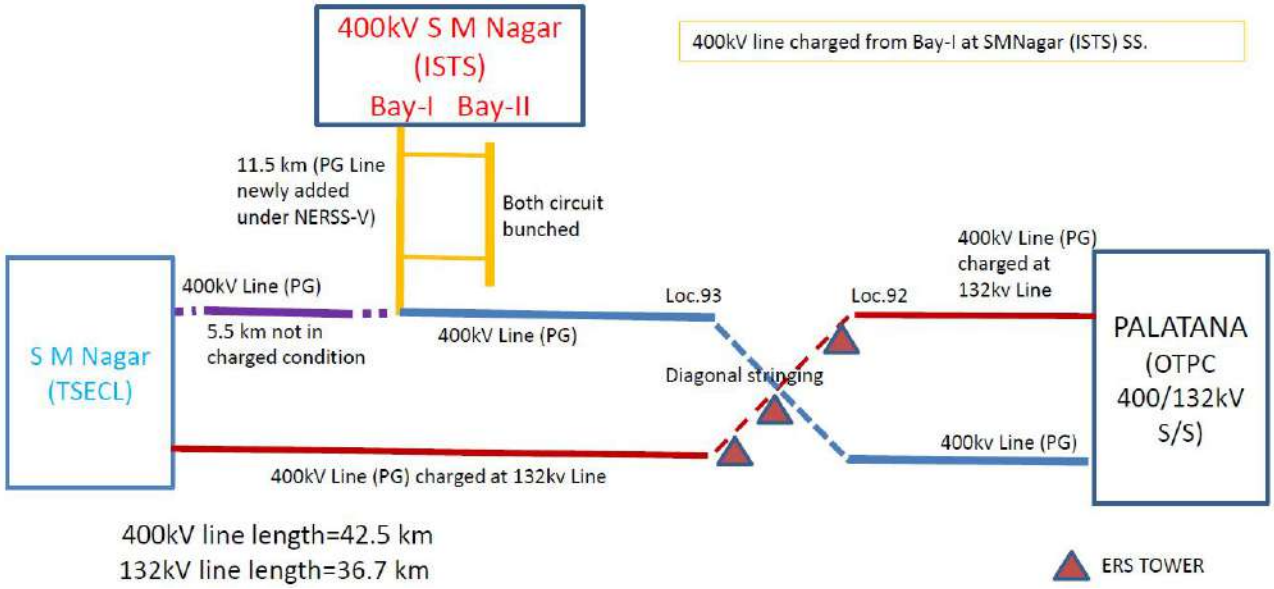
The transmission line section forming part of the LILO arrangement is in advanced stage of completion & is now expected to be completed by December'2022. After completion, it is proposed to keep the said line section (both the circuits) charged through suitable bunching arrangement (**as shown in Figure A below**).

Further, presently connectivity between Pallatana(OTPC) &Surjamani Nagar (TSECL) is maintained through special arrangement using ERS towers as agreed in the meeting during the meeting held on 18.05.2021 attended by Member (Power System), CEA, NERPC, NERLDC, CTU, POWERGRID & TSECL. This was envisaged to be an interim arrangement till LILO of Pallatana-Surajmanai Nagar (ISTS) at Surajmanai Nagar(TSECL) under NERSS XIV is implemented.

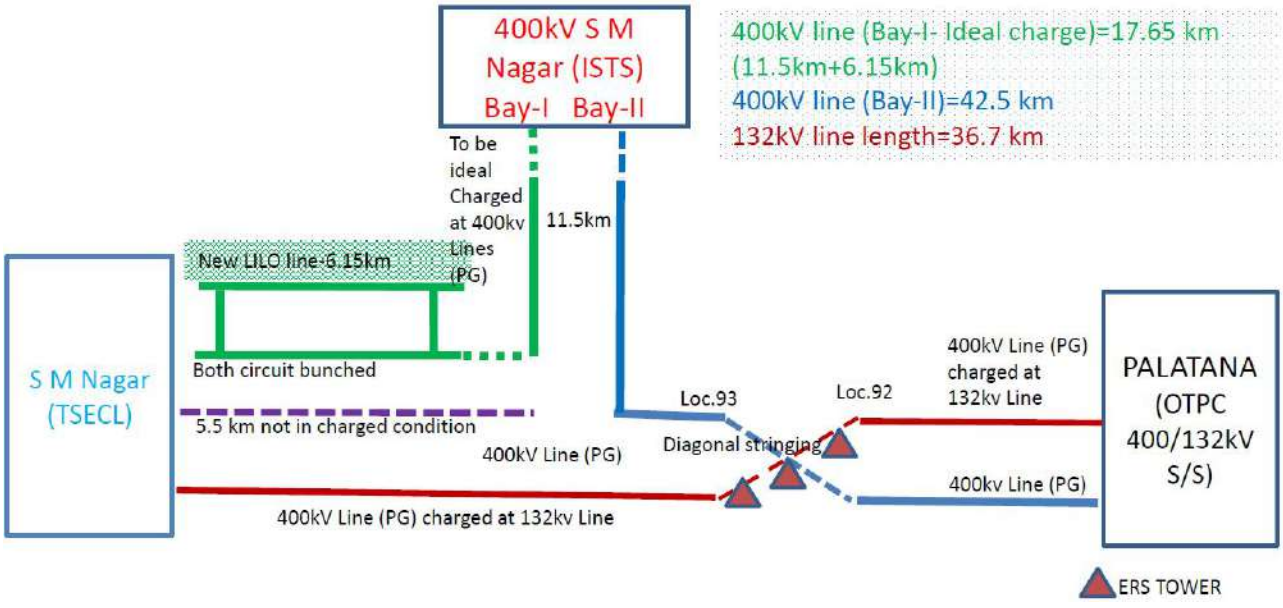
Since implementation of scope of NERSS XIV is now kept in abeyance, it is proposed that the interim arrangement so made using ERS towers may now be converted into a permanent arrangement (i.e. on tower structures) considering various vulnerabilities to which ERS towers are subjected. This would primarily involve installation of 3 No. new towers/ Gantry structures & is proposed to be carried out as an additional scope under NERSS V project.

***Figure (A)***

***Present Arrangement***




***Proposed arrangement***




***Deliberation of the TCC***

Chairman, TCC & MD, TSECL stated that requirement of 400kV Surjamninagar shall be decided by the JV. In event of decision of 400kV Surjamaninagar and if timeline for

completion is short then ERS may be kept. CGM(AM), NERTS contended that POWERGRID has to close the project and conversion from ERS to permanent structure is necessary for the same.

Member Secretary, NERPC noted that 132kV connection from Palatana to Surjamaninagar was approved on temporary basis and no extra expenditure was incurred under the project being executed by POWERGRID. Thus, in order for system reliability and security so as to avoid any untoward incidence, removal of ERS with permanent towers may be approved and booked under NERSS-V.

CTUIL requested POWERGRID through the forum to complete OPGW works for LILO portion at Surjamaninagar (TSECL).

***Forum recommended for discussion in RPC***

***Deliberation of the RPC***

The proposal of POWERGRID to convert the ERS towers arrangement for connectivity between Pallatana (OTPC) and Surjamaninagar (TSECL) into permanent tower structures involving 3 nos. new Towers/Gantry structures was approved. The work will be covered under additional scope in NERSS -V project.

POWERGRID was requested to complete the OPGW works for LILO portion at Surjamaninagar (TSECL).

***The RPC noted as above.***

| | | |
|---|---|---|
| **ITEM NO. A.05** | **:** | **RECONSTRUCTION OF RESIDENTIAL AND NON-RESIDENTIAL BUILDING AT VARIOUS STATIONS OF NERTS DUE TO VERY DILAPIDATED/NON-LIVEABLE CONDITION: - POWERGRID** |

Residential and Non-Residential buildings were constructed at Haflong, Jiribam, Aizawl, Kumarghat, Salakati, Misa, Dimapur & Imphal under Additional Transmission for Gohpur Itanagar (ATGI), Chukkha project, Transmission System associated with Doyang HEP (Combined Element) and Transmission system associated with Loktak HEP respectively. These buildings were constructed in year starting from 1983 and have completed around 28-39 years

It is observed that due to ageing, these buildings have developed cracks and deteriorated and are not in liveable condition. In order to ascertain Structural Strength of these buildings, Structural Assessment of Residential & Non-residential buildings was carried out at Salakati, Haflong, Jiribam, Aizwal and Kumarghatthrough third party e.g. Bineswar Brahma Engineering College, Assam (Govt. institute AICTE approved).

Based on their assessment, it is found that the structures are quite unsafe and not in liveable condition. Further, it is mentioned that renovation may also not lead to any improvement in the strength of the buildings. In view of safety and security of employees (which are also a part of the system), it is not advisable to use these buildings for residential/non-residential use.

As manpower deployed in substations is an integral part of the system and since round the clock availability of manpower is essential for smooth O&M of these important Sub-stations, it is prudent that the residential/non-residential buildings are to be reconstructed as per present requirement.

Accordingly, as per present requirements, it is proposed for demolition and reconstruction of 16 nos quarters each at Haflong, Jiribam, Aizawl &Kumarghat, 08 nos quarters at Salakati substation, 20 nos. Residential quarters each at Misa, Dimapur and Imphal Substation under O&M ADDCAP 2019-24 tariff block. Moreover, 1 no Transit camp, and Admin building each at Haflong, Jiribam, Aizawl, Kumarghat, Dimapur and Imphal substation are also needs to be demolished and reconstructed under ADDCAP.

Accordingly, it is proposed for construction/demolition of buildings as per following details:

| Name of Substation | Const. Year | No of Quarters to be demolished | Nos of quarters to be Constructed | Estimated Cost (Rs. In Cr. ) |
|---|---|---|---|---|
| **ATGI PROJECT** | | | | |
| Haflong | 1987 | 16 | 16 | 4.36 |
| Jiribam | 1985 | 16 | 16 | 4.52 |
| Aizawl | 1988 | 16 | 16 | 4.21 |
| Kumarghat | 1989 | 16 | 16 | 4.38 |

| Name of Substation | Const. Year | No of Quarters to be demolished | Nos of quarters to be Constructed | Estimated Cost (Rs. In Cr. ) |
|---|---|---|---|---|
| **TRANSMISSION SYSTEM ASSOCIATED WITH DOYANG HEP** | | | | |
| Misa | 1994 | 20 | 20 | 5.48 |
| Dimapur | 1995 | 20 | 20 | 5.48 |
| **TRANSMISSION SYSTEM ASSOCIATED WITH LOKTAK HEP** | | | | |
| Imphal | 1983 | 20 | 20 | 5.48 |
| **CHUKKHA TS** | | | | |
| Salakati | 1987 | 08 | 08 | 2.12 |

| Name of Substation | Year | No of Non Residential Building to be demolished | Nos of Non Residential Building to be Constructed | Estimated Cost (Rs. In Cr. ) |
|---|---|---|---|---|
| **ATGI PROJECT** | | | | |
| Haflong | 1987 | 1 each | 1 each | 1.4 Cr |
| Jiribam | 1985 | 1 each | 1 each | 1.4 Cr |
| Aizawl | 1988 | 1 each | 1 each | 1.4 Cr |
| Kumarghat | 1989 | 1 each | 1 each | 1.4 Cr |
| **TRANSMISSION SYSTEM ASSOCIATED WITH DOYANG HEP** | | | | |
| Dimapur | 1996 | 1 each | 1 each | 1.4 Cr |
| **TRANSMISSION SYSTEM ASSOCIATED WITH LOKTAK HEP** | | | | |
| Imphal | 1983 | 1 each | 1 each | 1.4 Cr |

** Non-Residential Building – 1 no Transit camp, and Admin building each

Estimated Cost for Demolition/Reconstruction for Residential & Non-Residential buildings is as under: -

| SN | Project | Amount (In Cr.) |
|---|---|---|
| 1 | ATGI | 23.07 |
| 2 | Transmission System associated with Doyang HEP | 12.36 |
| 3 | Transmission system associated with Loktak HEP | 6.88 |
| 4 | Chukkha TS | 2.12 |
| | TOTAL = | 44.43 |

The agenda was discussed in 45th CCM, 192nd OCCM and 194th OCCM. After detailed deliberation in 194th OCCM, the forum referred the matter to 46th CCM for through discussion and further referral to TCC/RPC for final approval. Accordingly, the issue was discussed in 46th CCM and the forum referred the matter to next TCC/RPC. Refer Item No. C.14 of MOM of 194th OCCM and Item No. 2.4.3 of MOM of 46th CCM Meeting.

***Deliberation of the TCC***

ED(AM), POWERGRID informed that similar works have been approved by WRPC/SRPC. POWERGRID informed that Structural assessment survey was carried out wherein it was mentioned that repairing is not possible and the new quarters are to be constructed.

TCC noted the requirement of Re-construction works and referred to RPC for deliberation.

***Deliberation of the RPC***

The RPC forum received mixed responses from different States of NER on the proposal of reconstruction of Residential & Non-Residential buildings of POWERGRID under ADDCAP. Some States suggested that POWERGRID may consider renovation or construct from their own O&M or any other alternate sources without burdening the DICs.

Member Secretary, NERPC explained that the expenditure will be booked under POC and it would be shared by all the DICs based on the usage of the system as per the POC regulations.

POWERGRID clarified that the said buildings were part of the original project and this asset will remain in NER and it is for the benefit of the region only.

After in depth deliberation, the RPC forum agreed to the proposal of POWERGRID for taking up the above reconstruction of buildings under ADDCAP in tariff period 2019-24.

***The RPC noted as above.***

**ITEM NO. A.06 : FREQUENT FAILURE OF TRANSFORMER AT 132KV ZIRO S/S: - NERPC**

Since commissioning of 132/33kV Ziro Sub Station by POWERGRID, repeated downstream faults are occurring in 33kV Lines at Ziro Sub Station. List of tripping of previous couple of years as given below: -

| SN | NAME OF THE LINE | NO. OF TRIPPING | |
|---|---|---|---|
| | | 2021 | 2022 (UPTO SEP22) |
| 1 | Kurung Kumey | 433 | 353 |
| 2 | Kimin | 437 | 318 |
| 3 | Old Ziro | 73 | 106 |

Now, there are 05 Single phase units provided at Ziro S/s (03 Nos Main Units, 01 No as Cold Spare & 01 no Regional Spare). In addition 1 no of unit also procured for additional support.

Due to frequent 33kV line tripping, there had been 05 instances of failure of Transformer units during 2010, 2013, 2014, 2019 & 2021 at regular intervals where the faulty units have been replaced with the available spare / repaired unit. At present, out of 03 running units 02 units are already repaired upon failure and their expected life already reduced. It is to mention here that 02 Nos are under procurement as 3 Units have to be scrapped because of failure beyond repair.

As instances of repeated tripping is still ongoing, there are very high chances of breakdown of Transformer again at Ziro Sub Station.

Since there is only one bank of Transformer at Ziro S/s, in case of breakdown, all the connected areas through these 33kV Lines shall be without power till restoration.

The issue was discussed in details during 195th OCC Meeting and during deliberation NERTS showed concern and highlighted that due to very large number of tripping on 33kV lines, the O&M of the transformers has become difficult and challenging too. In the event of breakdown, all connected areas through 33kV lines shall be without power till restoration.

The forum opined the requirement of one more transformer to fulfil N-1 criterion, referred the issue for detail deliberation in 23rd TCC/NERPC.

Installation of additional ICT will have a financial implication of approx. Rs. 5 Cr. The feasibility study for availability of space shall also be required.

***Deliberation of the TCC***

CGM(AM), NERTS informed that ICT is tripping two times daily on average. Further repaired transformer is in operation and transformer life has deteriorated greatly and there are the chances of blackout.

SE (Trans), DoP Ar. Pradesh stated that if new transformer is procured under Add-Cap will put great stress on the state, hence additional transformer is not required. To alleviate the stress on transformer and to reduce tripping of the transformer POWERGRID may commission 132kV Ziro – Yazali and 132/33kV 2x20MVA Yazali which is in advanced stage of commissioning under Comprehensive Project. Status to be reviewed in RPC.

***Deliberation of the RPC***

CGM (I/C), NERTS stated that for reliability and redundancy, a second transformer is necessary. This would ensure continuous supply to those connected areas through 33kV lines in case of outage of first transformer.

SE (Trans.), DoP Arunachal Pradesh stated that considering financial impact on Arunachal Pradesh, the new transformer may not be required. He instead requested POWERGRID to expedite commissioning of the 132kV Ziro – Yazali and 132/33kV 2x20MVA Yazali which would substantially reduce the stress on the transformer at Ziro.

POWERGRID informed that the 132kV Ziro – Yazali line would be commissioned by March 2023 subject to receipt of Forest Clearance by Jan'23.

***The RPC noted as above.***

**ITEM NO. A.07 : PENDING HANDING OVER OF KHUPPI-KIMI 132 KV TRANSMISSION LINE: ARUNACHAL PRADESH**

It was agreed in the 7th Meeting of Standing Committee on Power System Planning of North Eastern Region on 17.05.2018, at Guwahati, to hand over the following assets created by NEEPCO for drawl of construction power to Kameng HEP through POWERGRID on deposit work to Arunachal Pradesh through a modality to be decided in a separate meeting in CEA:

A. Transmission Lines:

a. Balipara-Khupi 132 kV S/C line.

b. Khupi-Kimi 132 kV S/C line.

B. 2x50 MVA, 220/132 kV transformer with all associated bays at Balipara.

C. 4x5 MVA, 132/33 kV Sub-Station with all associated bays and ancillaries at Khupi

Pursuant to above, Central Electricity Authority took a meeting on 10.10.2018, and firmed up with the decision for handing over of the assets to Department of Power, Arunachal Pradesh on mutually agreed terms.

After a great deal of efforts, Department of Power, Arunachal Pradesh (DoP:GoAP), took over all the elements on 15/12/2020, except the Khupi-Kimi 132 kV S/C line; which was decided to be handed/taken over at its charged rated voltage of 132 kV, that is presently charged at 33 kV.

So far NEEPCO has not been able to render the line to be charged at the rated voltage, and hence has not handed over the same for which the power supply system at Khupi, East Kameng, West Kameng, Tawang and adjoining areas including the evacuation of the local Dikshi HEP generations are hugely impacted. NERPC have also been intervening on the matter through various meetings of OCC forum entailing NEEPCO for immediate handing over of the Khupi-Kimi 132 kV line to Department of Power, Arunachal Pradesh, by rectifying all the deficiencies of the line, associated bays and their equipment and ancillaries.

Further, for communication and protection of the Khupi-Kimi 132 kV transmission system, POWERGRID (Comprehensive Scheme) had agreed in a meeting taken by NERPC at Itanagar on 18.02.2022, to take suitable action in laying of OPGW on the Khupi-Kimi line, which too is pending.

Due to the above unusual delays, not only the western Arunachal Pradesh is subjected to suffering for want of reliable power supply in absence of alternate grid connectivity in the event of (frequent) disruption of the Balipara-Dukumpani-Khuppi 132 kV S/C Transmission line, but also cause huge perennial generation losses to local Dikshi HEP and even the Kameng HEP. This is an impact to the Region as well the Nation. Considering the above fact, the forum may like to prevail and impress upon NEEPCO and POWERGRID for immediate completion of their respective

pending works in a timebound manner, and hand over the 132 kV transmission line charged at rated voltage as decided and agreed earlier to address the supply stability and system reliability issue of the area.

***Deliberation of the TCC***

ED(O&M), NEEPCO informed that work will be completed by Dec'22. POWERGRID was requested to update the status of commissioning of OPGW link for Kimi -Khupi in NERPC meeting.

***Deliberation of the RPC***

POWERGRID informed that the OPGW link on Kimi- Khupi line would be ready by Dec'22. The forum advised PGCIL to strictly adhere to the deadline as above. After detailed deliberation the forum referred the matter for monitoring in Sub-Committee of NERPC.

***The RPC noted as above.***

| | | |
|---|---|---|
| **ITEM NO. A.08** | **:** | **REQUIREMENT OF CONSTRUCTION POWER FOR DIBANG MULTIPURPOSE PROJECT (DMP) (2880 MW), ARUNACHAL PRADESH BY NHPC: ARUNACHAL PRADESH** |

Vide letter Dated 19.08.2017, NHPC requisitioned to DoP:GoAP, for construction power requirement of 30 MW for the DMP by informing DPR provision of 132/66 kV bay at Roing with 41 kMs of 66 kV transmission line up to Pathar Camp including 66/11 kV Sub-Station at the project site. It was also sought to be confirmed in the communication as to whether it was possible to extend 132 kV transmission line from Roingupto the project for tapping construction power, so that the same line could be used for meeting up the local power requirement of Arunachal Pradesh after the commissioning of DMP.

Vide their subsequent confirmatory letter Dated 01.12.2017, NHPC reiterated and confirmed their requirement of 30 MW construction power at 132 kV level; and accordingly, requested Transmission, Planning & Monitoring Zone (TP&MZ) of DoP:GoAP for submission of the DPR so that they would deposit the fund to TP&MZ for further execution of the work, with the subsequent letter Dated 31.08.2018, conveying of specific transformer requirement specification of 3 numbers of Single Phase (1Pi) 20 MVA, 132/33 kV Transformer for maximum utilization of power; with

followed up reminder letter Dated 22/07/2019 for submission of the DPR with additional requirement scopes therein.

After a lot of hard work and efforts, the DPR as required in the scope were submitted to NHPC vide forwarding No. CE/TPMZ/W-130/2019-20/1884-86, Dated 1/11/2019.

On learning that instead of responding to DoP:GoAP, NHPC was contemplating to get the works executed through other agency based on the estimate framed by DoP:GoAP, communication letters from DoP:GoAP Dated 5th May 2020, and 12th June 2020 were made with NHPC about the status of deposit of the fund. NHPC chose to remain silent on the communications.

However, on 09 June 2022 at 5:00 PM, the Central Transmission Utility (CTU), abruptly mailed a Notice for a meeting on the next day, 10 June 2022 at 11:00 AM on the above subject matter of 30 MW construction power requirement by NHPC for DMP in Arunachal Pradesh. In the meeting on the appointed day, the CTU called off the meeting with the decision that NERPC would convene a separate meeting on the subject meter.

Consequently, the matter was discussed and deliberated in a Special Meeting convened by NERPC on 11 July 2022 in participation of the representatives of NHPC and DoP:GoAP, wherein it was agreed that, the construction power demand being less than 100 MW, and that being required in the state of Arunachal Pradesh, NHPC had no other option but only to approach DoP:GoAP for the power supply and associated requirement.

Pursuant to above decision, NHPC vide No. NH/DMP/ED/2022/4126, Dated 13.07.2022, once again requested TP&MZ of DoP:GoAP for confirmation of availability of 30 MW at 132 kV level at Pathar Camp of NHPC Dam site. The matter was clarified to the NHPC by DoP:GoAP vide their communications Dated 15th July 2022 and 20th July 2022, for immediate placement of the fund against the DPR already submitted and put in a formal application for load sanction of the demanded 30 MW construction power requirement.

However, instead of immediate implementation of the already agreed decision, NHPC vide their communication Dated 22.07.2022, conveyed requirement of some more review of the DPR etc. and proposed for a meeting to firm up the proposal. Accordingly, a joint meeting of DoP:GoAP and NHPC was held on 04.08.2022; vide

which it was agreed and decided as under:

A. 132 kV Transmission System for the Construction Power:

i. As proposed by NHPC, the scope of the DPR was to be recast with change of Transformer voltage ratio from 132/33 kV to 132/11 kV with the firmed up route and length of the line route after a joint survey.

ii. Meanwhile NHPC was to convey final modifications, if any further, viz., numbers of 11 kV feeders, their ratings and accessories etc.

iii. Based on above finalization, the DPR was to be recast based on the latest Schedule of Rates of DoP:GoAP.

B. Power Availability:

NHPC to apply with year-wise peak power requirement for sanction of their such load demand; which would be conveyed by DoP:GoAP after the assessment.

However, once again, instead of complying with and sticking to the already agreed decision as above, for the joint survey and finalization of the proposed transmission line route, NHPC deviated by informing vide their communication Dated 29.09.2022, to the concern Transmission Division of TP&MZ of DoP:GoAP that the matter is under review and accordingly would revert back after the firm up.

But astonishingly, the Executive Director, NHPC, DMP, vide his letter Dated 13.10.2022, abruptly & unilaterally changed the entire modus operandi of the complete subject matter, unmindful of the fact of the intervention position of NERPC in it and without taking into account the view of NERPC, requisitioned to Roing Electrical Division of Eastern Distribution Zone of DoP:GoAP, with the manipulatively altered quantum of load demand of 10 MVA at voltage level of 33 kV against the earlier 30 MW at 132 kV, with the most deceptive apparent abnormal requirement of 7 (seven) numbers of 33 kV feeders, seemingly not only for further future abnormal manipulative alteration of the appropriate Regulations, but also depriving the earlier earmarked stand for local and regional aspirational rights for use of the 132 kV transmission system to be used for meeting up the local power requirement of Arunachal Pradesh after the commissioning of DMP system.

In view of the above nonchalant disposition of NHPC in complete disregard to concerns and sensitivity of the Regional and Locale aspirations, and their hard attempt being exerted to deprive even the basic collateral benefit to be accrued to

locality of the host state in development of the huge project and neglect the sanctity of the decisions of this august Regional Forum, the irresponsible party may be impressed upon to uphold the respect and dignity of decisions and commitment made earlier in the Special Meeting taken by NERPC and desist from such repeated deviations and create unnecessary confusions and conflicts.

***Deliberation of the TCC***

NHPC informed that vide letter dated. 17.11.2022 to CE (TP&MZ), DoP Ar. Pradesh, NHPC expressed urgent requirement of 10MVA power in view of early load requirement based on quantum of initial works. For the same NHPC requested for 33kV line and future requirement of 33kV outgoing feeders were based on internal distribution of power at various locations within project area which have been further reviewed /reduced as per contractual provisions/requirements.

The forum referred the matter for deliberation in RPC.

***Deliberation of the RPC***

CMD, NHPC informed that the issue would be settled bilaterally with Arunachal Pradesh. Arunachal Pradesh also agreed to discuss with NHPC for resolving the issue bilaterally.

## CATEGORY – B : ITEMS FOR APPROVAL

| | | |
|---|---|---|
| **ITEM NO. B.01** | **:** | **RE-CONDUCTORING BY PROVIDING HTLS CONDUCTOR WITH ALLIED ACCESSORIES AT EXISTING 132 KV INTRA-STATE TRANSMISSION LINE SECTIONS OF TSECL. – TSECL** |

Power flow through 132 KV network in the State of Tripura has increased considerably with addition of new generating stations in the system. Re-strengthening of some intra-state transmission line sections by replacing old aged conductor, hardware etc. with HTLS conductor having ampacity of 800 Amperes with suitable insulator & hardware fittings being essentially required is envisaged in the proposal for stability of the intra-state grid.

i) The existing 132 KV intra-state connectivity from Udaipur to Palatana Generating Station is presently having ACSR Panther conductor. The said link is proposed for re-

conductoring with HTLS conductor which shall strengthen intra-state transmission system in terms of adequate power flow with more reliability and improved voltage profile which will be beneficial not only for the Gomati and South Districts but the State as a whole considering the future load growth.

ii) Rokhia Generating Station is presently connected with two major intra-state transmission lines at 132 KV 79 Tilla Agartala Grid sub-station and 132 KV Udaipur sub-station. The existing 132 KV double circuit link from 79 Tilla Agartala Grid to Rokhia has been already provided with HTLS conductor.

The 132KV single circuit transmission line from Udaipur to Rokhia GTP was constructed and commissioned long back with ASCR "PANTHER" conductor. Since commissioning the line has gone through different wear-tear condition and overtime the power flow through this line has also been increased, mechanical strength of the power conductors & IR value of the existing disc insulators of the said line have deteriorated to a great extent due to overlong use. As a result, there has been frequent occurrence of snapping of old aged conductors, insulator failures and outage of jumpers due to flashing which has caused major disruption in Tripura power system and disturbances in intra-state grid with current flowing above thermal limit through some intra-state line sections creating congestion in adequate power flow.

As such, providing of HTLS conductor in both the existing 132 KV transmission line sections from Palatana to Udaipur and Udaipur to Rokhia is very much essential for adequate power evacuation from Palatana Generating Station and Rokhia GTP and to maintain grid reliability, stability as well as to improve the voltage profile.

iii) The re-conductoring proposals of TSECL have been earlier placed in the 22nd TCC and 22nd NERPC meetings held on 26th-28th March, 2022, where the proposals have been referred to the respective sub-committees. Subsequently, the proposals were put up in the 190th OCC meeting of NERPC held on 20th May, 2022, where the proposal has been referred to the CMETS– NER (Consultation Meeting for Evolving Transmission Schemes in North Eastern region) of Ministry of Power, Govt. of India.

iv) In the 9thCMETS-NER meeting held on 22nd July, 2022, reconductoring of the following existing 132 kV intra-state line section with HTLS Conductor (800 Amp) along-with augmentation/replacement of bay equipment commensurate with rating of HTLS conductor at both ends as may be required was agreed:

(a) Palatana – Udaipur 132kV S/c line (KM)

It was also decided that a joint study will be carried out to assess the requirement of reconductoring of other proposed intra-state lines of TSECL based on load forecast.

v) Subsequently, in the 10th CMETS-NER meeting held on 29th August, 2022, after detailed deliberations and based on joint studies, strengthening work was agreed for reconductoring of following existing additional 132kV lines with HTLS conductor (800 Amp) along with augmentation/replacement of bay equipment commensurate with rating of HTLS conductor at both ends, as may be required:

(a) Rokhia – Udaipur 132kV S/c line (KM)

(b) Ambasa – Kamalpur 132kV S/c line (KM)

(c) Rabindranagar – Monarchak 132kV D/c line (KM)

Based on the recommendations of 9th and 10th CMETS-NER, the following 132 kV intra-state transmission line sections are proposed for re-conductoring by providing HTLS conductor of ampacity 800 Amp along-with allied accessories:

| **Sl.** | **132 KV Line section** | **Circuit** | **Length (CKm)** |
|---|---|---|---|
| i) | Palatana – Udaipur | S/C | 12 |
| ii) | Udaipur – Rokhia GTP | S/C | 47 |
| iii) | Ambassa - Kamalpur | S/C | 31 |
| iv) | Rabindranagar - Monarchak | D/C | 5.2 |
| | **Total** | | **95.2 CKM** |

Detail Project Report (DPR) of the proposal will be submitted for consideration of funding through 100 % Grant from Power System Development Fund (PSDF).

*Placed for approval of TCC/NERPC.*

***Deliberation of the TCC***

*TCC noted and recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

| | | |
|---|---|---|
| **ITEM NO. B.02** | **:** | **MODERNISATION AND UP-GRADATION OF PROTECTION SYSTEM IN 132 KV EHV SUB-STATIONS OF TSECL. – TSECL** |

Presently there are 13 nos. 132 KV EHV sub-stations of TSECL in the State. Out of these 13 nos. 132 KV sub-stations, renovation & up-gradation of protection system have already been implemented under PSDF scheme in the following 6 nos. 132 KV sub-stations:

1. 79 Tilla Agartala Grid
2. Dhalabil
3. P.K. Bari
4. Gournagar (Kailashahar)
5. Ambassa
6. Udaipur

In addition, augmentation of the following 5 nos. existing 132 KV sub-stations have been envisaged in the scope of work of Govt. of India and World Bank funded NER Power System Improvement Project (NERPSIP) and are presently in progress by Power Grid Corporation of India Limited (Implementing Agency of NERPSIP)

1. Udaipur
2. Jirania
3. Dhalabil
4. Gournagar (Kailashahar)
5. Ambassa

The below-mentioned 5 (five) nos. existing 132 KV EHV sub-stations being not covered either in NERPSIP or under R & U Scheme of PSDF are left-out:

1. Surjamaninagar
2. Bodhjungnagar
3. Gamaitilla
4. Kamalpur
5. MissionTilla (Dharmanagar)

Modernisation& Renovation by replacing old aged, obsolete equipments / switchgears and Protection system in the above balance 5 (five) nos. 132 KV sub-stations of the

State viz, Surjamaninagar, Bodhjungnagar, Gamaitilla, Kamalpur, Missiontilla (Dharmanagar) respectively is very much essential to be implemented.

In addition, left out portions of certain protection components in 79 Tilla 132 kV Agartala Grid S/S, P.K. Bari 132 KV sub-station and 132 kV Udaipur sub-station respectively in respect of up-gradation of protection system also need be considered to achieve most reliable power transmission system in the State.

Major left out portions of protection scheme are appended here-in below:

1) Bus Bar protection
2) Line Differential Protection
3) Implementation of Auto Recloser & Carrier Aided Protection in 132 KV lines
4) 132 KV Substation Automation System (SAS)
5) Renovation of earthing system
6) Transfer bus with bus-coupler arrangement
7) Installation of Numerical Relays by replacing Electro-mechanical relays
8) Implementation of Back Up D.C. system
9) Black Start DG system

The proposal was placed before CMETS –NER for acceptance, but, CMETS –NER has communicated that the proposal pertains to Renovation & Up-gradation of Protection System of TSECL's Intra – State network and accordingly, the same is not required to be deliberated in the CMETS –NER.

Detail Project Report (DPR) will be submitted for the proposal of Renovation & Up-gradation of Protection System in the 5(five) nos. EHV Sub-Stations of TSECL (viz, Surjamaninagar, Bodhjungnagar, Gamaitilla, Kamalpur and Missiontilla) along-with left out portions of 3 nos. 132 KV sub-stations (79 Tilla Agartala Grid, P.K Bari and Udaipur) for consideration of funding through 100 % Grant from Power System Development Fund (PSDF).

*Placed for approval of TCC/NERPC.*

***Deliberation of the TCC***

*TCC noted and recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

| | | |
|---|---|---|
| **ITEM NO. B.03** | **:** | **UPGRADATION OF 132KV BADARPUR & 132KV KHLIEHRIAT SUBSTATIONS FROM SINGLE MAIN AND TRANSFER BUS SCHEME TO DOUBLE MAIN BUS SCHEME BY CONVERTING FROM AIS TO GIS: - POWERGRID** |

In NER, upgradation of 132kV Aizawl, Haflong, Jiribam, Kumarghat and Dimapur substations from Single Main and Transfer Bus Scheme to Double Main Bus Scheme by converting from AIS to GIS done on completion of 25 Years. In line with above, upgradation of 132kV Nirjuli and Imphal substations from Single Main and Transfer Bus Scheme to Double Main Bus Scheme by converting from AIS to GIS also agreed 1st NERPC Transmission Planning meeting held on 08/11/19. However, upgradation of 132kV Khliehriat and Badarpur substations from Single Main and Transfer Bus Scheme to Double Main Bus Scheme by converting from AIS to GIS was kept in abeyance in said 01st NERPC TP meeting on 08.11.2019 due to considerable time was left out for completion of 25 years which is by February 2024.

Considering minimum 2 years of lead time for detail engineering, tendering and implementation of the project and less than 2 years left out for completion of 25 years of life for Badarpur and Khliehriat, the issue was discussed in 195th OCC Meeting on 18.10.2022 for according approval for upgradation of Bus Bar Scheme from SMT to DM with conversion from AIS to GIS for Badarpur and Khliehriat Sub Station by POWERGRID on RTM basis as done for above stated stations. Approximate expenditure towards the same shall be INR 60.00 Cr. For both the stations (Approx. Rs. 30.00 Cr. Per station).

During deliberation, the forum gave the in-principle approval for the said upgradation works in line with earlier approval accorded for Imphal, Nirjuli, Jiribam, Haflong, Aizawl, Kumarghat & Dimapur Sub Station and referred the item to TCC/RPC Meeting. Refer Item No. C.13 of MOM of 195th OCC Meeting.

Further, considering the increasing urgent need to achieve decarbonization in all sectors worldwide, it is proposed to consider upgradation of Badarpur Sub-station to Green Sub-station by using green gas instead of SF6.

*Placed for approval of TCC/NERPC.*

***Deliberation of the TCC***

*TCC noted and recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

**ITEM NO. B.04 : REPLACEMENT/ REFURBISHMENT OF CONVENTIONAL CONTROL & PROTECTION SYSTEM AT MISA, BALIPARA & BONGAIGAON S/S IN VARIOUS TRANSMISSION SYSTEM PROJECT UNDER O&M ADD CAP 2019-24: - POWERGRID**

400kV Substations Misa, Balipara & Bongaigaon Substations have been commissioned under Ranganadi-Balipara Transmission Line, Kathalguri Transmission Line Project and Doyang Transmission Line Project. The stations have been commissioned in the different – different time frames as detailed below: -

| SN | STATION NAME | DOCO |
|---|---|---|
| 1. | 400/220kV Misa | 30/06/1995 |
| 2. | 400/220/132kV Balipara | 16/03/1998 |
| 3. | 400/220kV Bongaigaon | 21/08/1998 |

These stations have been commissioned with conventional control & protection panels wherein Control & Relay panels are placed in Control Room whereas control cables from CT, CVT & CB have been laid between Switchyard to Control Room.

As the system have been commissioned around 25 years back, following issues have been observed in the installed asset base: -

1. Quite a few relays are static type. Failures have been noticed in them due to ageing of components.
2. Cables laid have got worn out due to inclement weather condition which results in occurrence of frequent DC Earth fault in the system.
3. Technologically the relays have become obsolete.
4. SCADA Systems are not available due to which complete SOE after any event could not be obtained.
5. Old and obsolete Bus bar Protection system is installed resulting in complete threat to the Substation Bus Bar Protection System.

On account of above, there had been cases of mal-operation due to which reliability of the Grid gets reduced.

Hence, complete replacement of these conventional CRP has been taken up under O&M Add cap 2019-24. Benefits of the upgradation to SAS based is as given below:

1. Latest Technology Numerical Relays for better reliability during faults
2. New cables shall helpful to avoid the DC Earth faults
3. State-of-Art latest SCADA system will help in proper monitoring and analysis of the system.

Accordingly in order to execute the upgradation work the project wise estimated expenditure proposed to Hon'ble CERC for C&R panel and got approved as given below: -

| SN | STATION NAME | ESTIMATE EXPENDITURE (IN LAKH) |
|---|---|---|
| 1. | Ranganadi-Balipara Transmission Line and Kathalguri Transmission Line Project | 1124.67 |
| 2. | Doyang Transmission Line Project | 189.87 |
| | **TOTAL =** | **1314.54** |

Now, while preparing the detailed cost estimate, it is observed that some of the items (viz. Cables, Switchyard panel room etc.) not considered inadvertently in above approved estimate. It is to mention that without missed items upgradation work cannot be completed. Hence, in order to execute the upgradation work following is the revised the estimated expenditure got revised as per the details given below: -

| SN | STATION NAME | PROPOSED EXPENDITURE (IN LAKH) |
|---|---|---|
| 1. | Ranganadi-Balipara Transmission Line & Kathalguri Transmission Line Project | 2117.09 |
| 2. | Doyang Transmission Line Project | 982.38 |
| | **Total** | **3099.47** |

Approximate cost estimate for the project works out to be INR 3099.47 Lakhs only.

During Add cap approval for RBTL project, Hon'ble CERC recommended to take consent of RPC forum. In line with the same, as there is revision in the cost towards the CRP upgradation works, the matter was discussed in 193rd OCCM and after detailed deliberation the forum accorded in-principle approval for replacement of

conventional CRP with SAS based CRP under O&M Add Cap. 2019-24 for betterment of the system and for ensuring reliability of the grid. Further, forum referred the agenda to CCM/TCC/RPC for approval. However, inadvertently, the agenda item could not be taken up in next 46th CCM.

In view of the above, proposal is put up here for further deliberation as recommended by OCC forum and approval of CCM/TCC/RPC for revised cost of INR 30.99 Cr. under O&M add cap 19-24. Refer Item No. C.5 of MOM of 193rd OCC Meeting.

*Placed for approval of TCC/NERPC.*

***Deliberation of the TCC***

*TCC noted and recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

| | | |
|---|---|---|
| **ITEM NO. B.05** | **:** | **REQUIREMENT OF SAS BASED CONTROL & RELAY PANELS FOR 220KV SIDE OF ICT#1 (NEW) AND 132KV KHANDONG KOPILI#1 LINE BAY AT KOPILI (S/Y) OF NEEPCO: - POWERGRID** |

Under NERSS III, 01 No 220/132kV 160MVA ICT along with GIS on 132kV Side was provided. The assets under NERSS III were ready for charging. However, due to unfortunate incidence of flooding of Kopili Power House in Oct'19, there have been heavy damage to the assets.

Restoration of the assets under POWERGRID Scope is under progress. As complete CRP of NEEPCO portion got damaged, hence, complete R&M of the switchyard along with SAS based CRP was taken up by NEEPCO.

During the visit of a committee of senior officials from NERPC / NERLDC / NEEPCO / MeECL / POWERGRID at Kopili in connection with restoration, POWERGRID was asked to replace the conventional panels with SAS based panels to integrated with upcoming NEEPCO SAS based system. Thus, conventional panels of following elements / bays installed at NEEPCO Control room got washed out and hence needs to be replaced with SAS based panels along with integration in NEEPCO/existing SAS: -

1. 220kV Side bay of ICT#1 (new) provided under NERSS III

2. 132kV Line bay of Khandong Kopili#1

Now, the additional financial implication for installation of SAS based panels and integration with system will be approximately INR 50 Lakh which is additional item for the ongoing contract. Hence, it is proposed to approve the additional scope under NERSS III.

*Placed for approval of TCC/NERPC.*

***Deliberation of the TCC***

*TCC noted and recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

**ITEM NO. B.06 : UPGRADATION OF 33KV INDOOR SWITCHGEAR AT 132/33KV ZIRO S/S FROM AIS BASED TO GIS: - POWERGRID**

132/33kV Ziro Substation was commissioned in the year 2004. On 33kV Side AIS type Indoor switchgear panel scheme is implemented. Substation is situated at an altitude of 1700 above msl. There are following feeders connected on 33kV Side: -

1. 33kV Ziro – Old Ziro
2. 33kV Ziro – KurungKumey
3. 33kV Ziro – Kimin

Now, due to high altitude and humidity, the 33kV AIS insulations and equipment are suffering frequent flashover / failure which is causing unwanted outage of power supply.

Presently, there is hardly any service support from OEM and also, OEM recommends for replacement of 33kV AIS system with GIS for trouble-free operation. It is understood that DoP, AP has already replaced the 33kV System with GIS in contemporary stations at Daporijo and Along.

In view of above, the issue was discussed during 195th OCC Meeting on 18.10.2022 for replacement of 33kV AIS indoor switchgear by 33kV GIS indoor switchgear by POWERGRID on POC Mechanism for reliable power supply to the downstream consumers at Ziro Sub Station. Approximate expenditure towards the same shall be INR 2 Cr.

During deliberation the forum endorsed the proposal and referred the same to next TCC/NERPC meeting for the approval. Refer Item No. C.14 of MOM of 195th OCC Meeting.

*Placed for approval of TCC/NERPC.*

***Deliberation of the TCC***

*TCC noted and recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

**ITEM NO. B.07 : STRENGTHENING OF EVACUATION SYSTEM OF PARE HEP OF NEEPCO AND CAPITALIZATION OF THE EXPENDITURE TO BE INCURRED FOR IT FOR THE IMPLEMENTATION OF THE SCHEME: -NERPC**

The agenda was discussed in the 192nd OCC Meeting, dated 21.07.2022 and as per the MoM, all beneficiaries are requested to give their consent on the capitalization of expenditure to be incurred for the implementation of the scheme. The total financial involvement for the Strengthening of the evacuation system of Pare HEP (i.e., upgradation of LILO portion) stands at Rs. 4.31 Crores (inclusive of all taxes& duties) and the amount of the charges would be nominal on the beneficiaries for the span of 40 years. The relevant para of the MOM of the 192nd of OCC Meeting is reproduced as follows:

QUOTE

"*DD, NERPC noted that as NEEPCO is a generating utility the transmission works undertaken by NEEPCO cannot be booked under Transmission Tariff and has to be shared by the beneficiaries of Pare HEP.*

*AGM (Comml), APDCL informed the forum that Final tariff of Pare HEP is yet to be approved by Hon'ble CERC. He also informed that as part of the Tariff Petition Agreement of APDCL with NEEPCO dated 16.08.2021 was submitted to the Hon'ble CERC, in which NEEPCO and APDCL have agreed for tentative levelized tariff of ₹ 5.75/unit for 40 years with no escalation. However, he stated that APDCL is open to reviewing the agreement and submit the same to Hon'ble CERC.*

*DoP Nagaland agreed with the view of APDCL. While other State utilities decided to await for directions of Hon'ble CERC in this regard.*

*The forum in principle agreed to the requirement of the above works and requested NEEPCO to go ahead with the work.*

*It was also decided that:*

*(i)Assam and Nagaland would revise their agreements with NEEPCO and submit the same to Hon'ble CERC.*

*(ii)NEEPCO would submit Supplementary copy to its Original Tariff Petition of Pare HEP to Hon'ble CERC.*

*(iii)NEEPCO would place the agenda in the next CCM/RPC for approval.*"

UNQUOTE.

Further to the above, the issue was also discussed in the 6th Standing Committee Meeting of NER held at Imphal dated 03.10.2016 and following additional/ modification in the transmission system associated with Pare HEP was agreed as a part of NERSS -IX (Agenda No. 6):

a. Bypassing of LILO of Ranganadi - Naharlagun / Nirjuli at Pare HEP so as to form direct Ranganadi - Naharlagun / Nirjuli 132 kV S/C line – ISTS by NEEPCO.

b. Pare HEP (from LILO point) – North Lakhimpur (AEGCL) 132kV D/c line (with ACSR Zebra conductor) along with 2 no. 132 kV line bays at North Lakhimpur – ISTS (implementation through TBCB/RTM to be decided by empowered committee).

c. LILO of one circuit of Pare HEP – North Lakhimpur (AEGCL) 132kV D/c line (with ACSR Zebra) at Nirjuli substation – ISTS (implementation through TBCB/RTM to be decided by empowered committee).

d. Re-conductoring of LILO portion at Pare end (of Ranganadi – Naharlagun / Nirjuli 132kV S/c line) with HTLS (HTLS equivalent to ACSR Zebra) along with modification of 132kV bay equipment at Pare HEP – ISTS by NEEPCO.

Under 6.4 of the above items, Director, CEA stated that to recover additional investment in the transmission and bay equipment modification as suggested above, M/ s NEEPCO may file revised tariff petition in CERC.

Out of above 4(four) scopes, b & c are being executed by M/s Sterlite Power Transmission Ltd as TBCB contractor.

For (a) & (d), Chairman and Managing Director of NEEPCO communicated with Chairperson, CEA on 05.11.2020 requesting the scopes allocated to NEEPCO may

kindly be carried out through the TBCB contractor or the expenditure may be granted from PSDF/MoDONER as the same is under strengthening scheme.

Subsequently, several meetings were held on the issue but CEA did not agree to the request and asked NEEPCO to execute the work as per modalities as discussed in the meeting dated 18. 11.2021.

The scheme of execution of work was discussed and approved in presence of CEA, NERPC and M/s Sterlite Power Transmission Ltd. in the meeting dated. 08.04.2022.

Based on above, an offer was collected from M/s Sterlite Power Transmission Ltd. for both (a) & (d) scopes amounting to Rs. 3,65,20,119.00 which is exclusive of F&I and taxes and duties. With GST, financial involvement stands at Rs. 4,30,93,740.00 (**Annexure –B.07**).

Since TBCB contractor is M/s Sterlite Power Transmission Ltd., it is prudent to execute the small portion of work which is entrusted to NEEPCO through the same executing agency otherwise there is every chance of mismatching of commissioning schedules of these three lines if a third party is engaged by NEEPCO. Moreover, longer outages of the three lines may also be required.

In view of the above and as per the decision of the 6thStanding Committee Meeting of NER and MoM of the 192ndOCC Meeting of NERPC and as suggested by CEA, the forum is requested their consent to recover the above-mentioned additional investment in the transmission system at Pare HEP end as explained above.

The matter was discussed in the 46th CCM held on 28.09.2022 as below:

QUOTE

"*AGM, APDCL stated that as part of the Tariff Petition Agreement of APDCL with NEEPCO filed to the Hon'ble CERC, NEEPCO and APDCL have agreed for levelized tariff of ₹ 5.75/ unit for 40 years which does not have any scope for Additional Cap. NEEPCO informed that for the benefit of beneficiaries, the tariff of Pare HEP has been decreased from ₹ 7.23 to ₹ 5.75. However, this strengthening is a requirement which needs to be executed.*

*Member Secretary, NERPC appreciated APDCL's view, however, he emphasized that NER constituents are the beneficiaries of Pare HEP and the work is important which needs to be taken up at the earliest. After much deliberation, the Sub-committee*

*decided to refer the matter to TCC/RPC."*

UNQUOTE

***Deliberation of the TCC***

CGM(Comml), APDCL stated that tariff for Pare HEP has been finalized and some other alternate method has to be explored for recovery of the above amount.

GM, NEEPCO informed that on 17th Oct'2022 Pare HEP tariff order has been issued with levelized tariff of ₹5.75/unit. Thus, he suggested that the amount of ₹4.31 Cr. may be shared amongst the beneficiaries with a one-time recovery from all the utilities.

Member Secretary, NERPC welcomed the suggestion and decided that the same is worked out on the basis of share allocation as shown below:

| Sr. No. | Beneficiaries | Share Allocation (in %) | Amount in ₹ |
|---|---|---|---|
| 1. | Ar. Pradesh | 18.8725 | 8132866.08 |
| 2. | Assam | 40.51 | 17457274.07 |
| 3. | Manipur | 8.355 | 3600481.98 |
| 4. | Meghalaya | 13.33 | 5744395.54 |
| 5. | Mizoram | 5.765 | 2484354.11 |
| 6. | Nagaland | 5.4 | 2327061.96 |
| 7. | Tripura | 7.7675 | 3347306.25 |
| | TOTAL | 100.00 | 43093740.00 |

TCC recommended for the approval of RPC

***Deliberation of the RPC***

*The RPC approved the recommendation of TCC with a request to NEEPCO to allow respective beneficiaries to pay in installments if requested by the beneficiaries.*

**ITEM NO. B.08 : CONVERSION FROM CONVENTIONAL STATION TO SAS BASED STATION - MePTCL**

For increasing system stability, reliable and accurate collection and control of data, also for cost reduction of deployment and operation, it is proposed to convert conventional substation to SAS based S/s for effective management of transmission assets. The following grid substation are being identified for SAS implementation in Phase-I considering the communication system and logistics being in place.

(i) 132KV Mawlai Substation
(ii) 132KV NEHU Substation
(iii) 132KV Mawphlang Substation
(iv) 132KV Khliehriat Substation
(v) 132KV Mawlyndep Substation
(vi) 132KV NEIGRIHMS Substation
(vii) 132KV Lumshnong Substation
(viii) 132KV EPIP-I Substation
(ix) 132KV EPIP-II Substation
(x) 132KV Rongkhon Substation
(xi) 132KV Ampati Substation
(xii) 132KV Nangalbibra Substation and
(xiii) 132KV Mendipathar Substation.

Put for approval of TCC/RPC with 100% funding from PSDF.

***Deliberation of the TCC***

*TCC noted and recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

**ITEM NO. B.09 : RE-CONDUCTORING AND STRENGTHENING OF AGED 132 kV LINES IN MANIPUR WITH HTLS: MSPCL**

In 3rd NERPC-TP meeting held on 19th July, 2022 upgradation of the following lines (With HTLS) along with bay equipments at both ends were approved and placed for approval of TCC/N ERPC:

**a)** 132kV Imphal — Yurembam D/C Line
**b)** Existing 132 kV Leimatak — Ningthoukhong S/C Line
**c)** 132 kV Yurembam —Yaingangpokpi D/C line

Subsequently, in 22nd TCC and 22nd NERPC Meeting held on 26th & 28th March, 2022 at Guwahati the three 132kV transmission lines were approved for upgradation to HTLS.

With the advent of railways, trans-highway, e-vehicles and tourism in the state of Manipur, the demand of power would further increase. Further, Manipur is also feeding Tamu (Myanmar) radially via 11kV transmission line and demand from Tamu (Myanmar) is also expected to increase. Accordingly, the demand is expected to grow

to about of 600-650 MW in the next 3-4 years as per EPS projection. Therefore, the capacities of the existing 132kV transmission lines need to be increased to commensurate with increase in the demand of power.

The total capacity of Sub-Stations in each system 400kV, 132kV and 33kV are about 1000 MVA each and sufficient to cater with ever increasing demand of the state, whereas the ATC of the 132kV lines to draw power are quite less because all the existing 132kV transmission lines are constructed with normal conductors. The state could meet the increasing demand comfortably once the existing 132kV transmission systems are strengthened, reconductoring and changed with HTLS

Furthermore, obtaining of forest and environmental clearances for the Right of Way (ROW) for construction of new transmission lines is a big hurdle. And the cost also may shoot up because of the compensation to be paid. By re-conductoring the remaining old 132 kV lines with high capacity (High Temperature Low Sag, HTLS) conductors the problems of finding new ROWs can be avoided and the capacities of the lines can be increased to more than two times their original capacities. '

MSPCL certifies that the aged/old towers of the following 132kV transmission lines are technically fit for stringing of the I inas with HTLS Conductor.

1. Yaingangpokpi - Kongba D/C 132kV lines
2. Kongba- Thoubal D/C 132kV lines
3. Thoubal- Kakching-D/C 132kV lines
4. Kakching- Elangkhangpokpi-D/C 132kV lines
5. Elangkhangpokpi- Churachandpur-D/C 132kV lines
6. Imphal (PG)-Ningthoukhong S/C 132kV line
7. Ningthoukhong—Churachandpur D/C 132kV lines
8. Yurembam-Karong S/C 132kV line

Considering the above facts and circumstances, MSPCL proposes to strengthen and re-conductor the remaining old 132 kV above lines with HTLS conductor.

TCC may kindly deliberate the request of MSPCL and approve the proposal for the execution by MSPCL with possible funding from PSDF or other funding Agencies, in the interest of NER Grid Security and smooth power supply management in Manipur.

*Placed for approval of TCC/NERPC.*

***Deliberation of the TCC***

*TCC noted and recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

**ITEM NO. B.10 : EARLY COMMISSIONING OF BUS REACTOR AT BYRNIHAT (MEPTCL): -NERLDC**

Voltage rise issue is witnessed at Byrnihat throughout the year and gets more severe during the lean hydro period leading to difficulty in grid operation. The 63 MVAR Bus Reactor at Byrnihat is under prolonged outage. Commissioning of Bus Reactor at Byrnihat will mitigate the high voltage problem.

As per the deliberations in 193rd OCCM, MePTCL informed that negotiation reached and approval from Board of Directors, MePTCL is required.

| Sl No | Year | Total Hours for which Bus voltage of Byrnihat Bus above IEGC band (420 kV and above) |
|---|---|---|
| 1 | 2021 | 1.73 |
| 2 | 2022 | 2.09 |

MePTCL is requested to update the latest status and expedite the installation process.

***Deliberation of the TCC***

CE(Trans), MePTCL informed that Reactor has been dispatched and shall be delivered shortly and expected timeline is Dec'22 for commissioning. However, payment on delivery is uncertain due to shortage of funds.

Director (Trans), MePTCL elaborated that the proposal sent by MePTCL to PSDF was for ₹7.87 Cr and the sanctioned amount was ₹6.86 Cr by PSDF. However, LOA amount was ₹9.08 Cr after tendering process. Therefore, shortage amount is ₹2.22 Cr. He requested intervention of forum for recommending balance funding from PSDF in view of cost escalation during price discovery.

After detailed deliberation the forum recommends PSDF Secretariat to reconsider the sanctioned amount in view of the higher price discovery during procurement.

*TCC recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

| | | |
|---|---|---|
| **ITEM NO. B.11** | **:** | **STRENGTHENING OF LAST MILE FIBER-OPTIC CONNECTIVITY TO OBTAIN BETTER RELIABILITY AT NERLDC, SHILLONG AND BACKUP NERLDC, GUWAHATI: - NERLDC** |

NERLDC, Shillong is currently connected to 132 kV NEHU (MeECL) sub-station over fiber-optic media which is more than 15 years old and has crossed its lifespan leading to deterioration of associated optical-fibers. Since the optical-fiber carries important real-time power system operational data and voice; hence, the fiber-optic should be replaced between "NEHU and NERLDC Shillong (partially overhead and partially underground) preferably with a 2x24-fiber redundant arrangement".

Similarly, Backup NERLDC at Kahilipara, Guwahati is connected over OPGW of 132 kV Kahilipara-Sarusajai and 132kV Kahilipara – Umiam Stg. III – Umiam Stg. I – NEHU which is a twelve (12) fiber link and same has exceeded its life-span of 15 years since its installation under ULDC Phase-1 scheme. In order to maintain reliability of communication system at mission-critical establishment of NERLDC as well as regional communication backbone network, it will be beneficial to replace the OPGW on above-mentioned lines with at least twenty-four (24) fibres.

As several OPGW projects in NER are already under tendering/execution stage by POWERGRID; hence, the aforesaid links can be included in such projects (i.e., NER Reliable Communication Scheme or other similar projects or any new project, as per feasibility by POWERGRID) for faster completion.

TCC/NERPC may kindly approve the replacement of three sections namely "NERLDC Shillong – NEHU", "132 kV Kahilipara – Sarusajai" and "132 kV Kahilipara – Umiam Stg. III – Umiam Stg. I – NEHU" under any of the POWERGRID projects (such as NER

Reliable Communication Scheme or other similar projects or any new project, as per feasibility by POWERGRID) being executed by ULDC team of POWERGRID-NERTS.

***Deliberation of the TCC***

AGM, AEGCL informed that the OPGW links are very old and has reached EOL thus may be replaced ASAP.

Sr.GM, CTUIL informed that as per MoP notification all communication proposal shall need to be approved by NCT. After NCT approval the same shall be accommodated under suitable project. Further, he stated in all Regions it is common practice to check healthiness of fibers every 6 months. So, all links healthiness may be periodically provided to CTU, whereupon unhealthy links can be replaced irrespective of the life of the fiber.

ED, NERLDC stated that procedure needs to be followed, so TCC may recommend for replacement. After detailed deliberation the forum recommended for replacement of OPGW with 24 Fiber and referred the same to NCT (substantiated with test report) after RPC approval.

Director (Trans), MePTCL noted that commercial issues need to be considered and requested for clarity on Revenue Sharing mechanism.

*TCC recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

**ITEM NO. B.12 : FIBER CONNECTIVITY FOR CRITICAL CENTRAL-SECTOR TAIL-END GENERATING STATIONS: - NERLDC**

Some of the generating stations currently connected over single fiber-optic link are as follows –

a) Kameng Hydro Station (600 MW): Currently, fiber-optic connectivity is being done with 400 kV Kameng-Balipara OPGW only. It may be noted that OPGW works of 132 kV Kameng-Khupi are already under progress; hence, in order to establish physical redundancy for establishing secondary communication channel of Kameng, an OPGW should be laid over 132 kV Khupi – Tenga – Balipara section also. Kindly refer to the **Annexure-B.12** for details.

b) Kathalguri Gas Power plant (291 MW): Currently, Kathalguri is connected over fiber-optic link of 220 kV Kathalguri – Mariani (PG) only. To establish its redundant fiber-optic link, an OPGW should be laid over 220 kV Kathalguri – Tinsukia. Kindly refer to the **Annexure-B.12** for details.

TCC/NERPC may kindly approve establishing fiber-optic communication channels of two sections i.e. "132 kV Khupi – Tenga – Balipara" and "220 kV Kathalguri – Tinsukia" under any of the POWERGRID projects (such as NER Reliable Communication Scheme or other similar projects or any new project, as per feasibility by POWERGRID) being executed by ULDC team of POWERGRID-NERTS.

***Deliberation of the TCC***

SE (Trans), DoP Ar.Pradesh informed that OPGW for 132kV Khupi-Nechipu-Balipara is being laid under Comprehensive Scheme being executed by POWERGRID. Further, he also informed that OPGW for 132kV Khupi- Bomdila-Tawang is also considered under Comprehensive Scheme of POWERGRID. Since 132kV Khupi- Tawang is yet to be completed, he requested that instead OPGW with end equipments may be installed on 132kV Nechipu – Dokumpani – Dikshi HEP (32 km) which shall ensure connectivity to Dikshi HEP and Dokumpani.

After detailed deliberation the forum recommended for installation of 24 Fiber for 220kV AGBPP – Tinsukia with NCT approval and also directed POWERGRID to install fiber for 132kV Balipara – Nechipu-Dokumpani-Dikshi – Khupi at the earliest.

*TCC recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

**ITEM NO. B.13 : ENHANCEMENT OF CAPABILITY OF 132 KV PANCHGRAM – LUMSHNONG, 132 KV HAILAKANDI – DULLAVCHERRA, 132 KV PANCHGRAM – HAILAKANDI LINE AND 132 KV SRIKONA-PAILAPOOL LINE: - NERLDC**

The following lines have crossed the useful life of 35 years of age and need upgradation.

| Sl.No. | Name of the Line | Year of Commissioning |
|---|---|---|
| 1 | 132 kV Panchgram – Lumshnong line | 1969 (Approx) |

| | | |
|---|---|---|
| 2 | 132 kV Hailakandi – Dullavcherra line | 1970 (Approx) |
| 3 | 132 kV Panchgram – Hailakandi line | 1970 (Approx) |
| 4 | 132 kV Srikona - Pailapool line | 1970 (Approx) |

It has been observed that the above-mentioned lines are unable to carry power to the tune of the thermal rating of the ACSR Panther conductor (79 MW approx.). The above elements are therefore not able to provide grid security and reliability in the case of tripping of any parallel path. Also, due to low capability of the lines, reliability of power supply to Tripura, Meghalaya and South Assam Power System is reduced. NERLDC vide letter to AEGCL dated 17.02.22 already highlighted the same.

As per minutes of 22nd TCC & 22nd NERPC Meeting held on 26th & 28th March, 2022 at Guwahati, the forum opined that the item is are to be first discussed in Sub-Committee meetings of NERPC for detailed study and is therefore referred back to the Sub-Committee(s) of NERPC.

It is requested to take up necessary steps to enhance the Capability of the abovementioned transmission lines for the strengthening the North Eastern Regional Grid of India.

It is to be noted that as per discussion in 189th OCC meeting of NERPC held on 19th April'22:

**132kV Panchgram – Lumshnong** – Already under upgradation by MePTCL for entire 132kV Khliehriat-Lumshnong – Pangram.

**132kV Hailakandi – Durlavcherra –** DPR to be prepared for 132kV Hailakandi-Durlavcherra& 132kV Durlavcherra – Dharmanagar(Mission Tilla) on similar lines of 132kV Khliehriat – Lumshnong – Panchgram and to be sent to PSDF.

**132kV Panchgram – Hailakandi& 132kV Srikona – Pailapool**: Included under CEA's 2030 Augmentation Scheme

***Deliberation of the TCC***

GM, TSECL informed that 132kV Durlavcherra – Dharmanagar and 132kV P.K. Bari – Dharmanagar requires to be upgraded with HTLS.

After detailed deliberation the forum recommended for upgradation of 132kV Hailakandi – Durlavcherra with HTLS and preparation of DPR by AEGCL upon

approval of RPC. Regarding upgradation of 132kV Durlavcherra – Dharmanagar and 132kV P.K.Bari – Dharmanagar the forum referred the matter to CMETS.

*TCC recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

| | | |
|---|---|---|
| **ITEM NO. B.14** | **:** | **SCADA/EMS Upgradation Schedule of North Eastern Region for ULDC Phase 3.: - POWERGRID** |

The procurement process for upgradation of SCADA/EMS system in other regions is underway. During the process the SCADA/EMS vendors have submitted that the procurements may be done in phased manner among regions so that they can participate in effective manner. As the vendors for these kinds of projects are limited in numbers, it will be prudent to have tendering of SCADA/EMS Projects in all Regions in phased manner.

In view of above, the constituents of NER may share the schedule of the upgrade of their SCADA/EMS system for better planning of tender process.

***Deliberation of the TCC***

All the states unanimously decided that Upgradation works may be given to Grid-India (POSOCO). The forum decided that combined proposal will be sent to PSDF by Grid-India for funding.

*TCC recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

| | | |
|---|---|---|
| **ITEM NO. B.15** | **:** | **MOBILE BAYS FOR EMERGENCY RESTORATION OF EHV SYSTEM IN NER: - POWERGRID** |

In 21st NERPC meeting, procurement of 01 No each 220kV and 132kV Mobile GIS bays along with control & protection system with estimated cost of INR 8.42 Cr (excl. taxes & duties) was discussed and it was approved that expenditure shall be booked under PSDF/NEC.

Matter was taken up for booking of expenditure under PSDF. In this regard, it is to mention here that during a meeting held on 25/06/22 in Ministry of Finance regarding funding of projects under PSDF, it was discussed that ongoing projects in PSDF are small in size and funds are being utilized sub optimally. Further, it was suggested that PSDF may be utilized for financing large size critical & strategic infrastructure projects such as projects under Green Energy Corridor, RDSS etc.

In view of above, matter has been taken up again in 192nd OCC wherein the forum agreed in-principle to the requirement of Mobile GIS Bays as Regional Spare and referred to the next TCC/RPC for deliberation. Refer Item No. C.24 of MOM of 192nd OCCM. So far as funding is concerned, provision of procurement exists under RCE of ongoing NERSS XIII scheme.

*Placed for approval of TCC/NERPC.*

***Deliberation of the TCC***

*TCC noted and recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

**ITEM NO. B.16 : IMPLEMENTATION OF SECURITY OPERATION CENTER: -MSPCL**

During the 18th meeting of Monitoring committee of PSDF, held on 26th July 2022, it was decided that 100% of the project cost for the implementation of Security Operations Center (SOC) at SLDCs for real time cyber security monitoring may be funded through PSDF for the period from 2021-22 to 2025-26. In this regard, the letter regarding the Provision for Implementation of Security Operations Centre (SOC) through PSDF Funding was shared.

SOC is a facility that houses security team responsible for monitoring and analyzing and defending an organization security posture on real-time basis. It at as hub or central command post, collecting telemetry from across an organization's IT infrastructure, including network devices, appliances and information stores whenever those assets reside. Essentially the SOC is the correlation point for every event logged within the organization that is being monitored.

Following this a discussion meeting was organized by NERLDC for the SLDC's of NER region on 12 Oct 2022 to understand the technical requirements and implementation challenges for SOC. There were two important challenges in the implementation of SOC:

1. The maintenance cost (AMC) for the project may increase the financial liability of SLDC's.
2. The requirement to have 24x7 IT staffs to monitoring SOC. This will increase the burden on SLDC which are already facing manpower shortage the existing operations.

The forum may please advise on the necessary course of action.

***Deliberation of the TCC***

After detailed deliberation the forum requested all the SLDCs to prepare DPR and recommended for approval of RPC for PSDF funding.

*TCC recommended for approval of RPC.*

***Deliberation of the RPC***

*The RPC noted and approved the recommendation of TCC.*

## 3. CATEGORY - C : COMMERCIAL ISSUES

### ITEM NO. C.01 : OUTSTANDING DUES OF MIZORAM FOR PAYMENT TO TSECL AND RENEWAL OF LC. -TSECL

As on date, an amount of Rs 11.72 Cr. is outstanding excluding the surcharge with Mizoram. TSECL has to make timely payment to GAIL/ ONGC regularly to avoid surcharge etc as well as to avoid regulation of Gas supply. Therefore, Mizoram may ensure monthly payment to TSECL to avail rebate as well as to avoid surcharge etc.

Moreover, LC of Mizoram has already expired on 10th October, 2022 renewal of LC is required.

***Deliberation of TCC***

TCC noted the above and placed for deliberation of RPC.

***Deliberation of RPC***

Forum requested Mizoram to clear the outstanding dues and also renew LC as per at

the earliest.

Mizoram agreed to do the needful.

**ITEM NO. C.02 : OUTSTANDING DUES OF OTPC AGAINST NER BENEFICIARIES – OTPC**

The current total outstanding dues of OTPC against the NER beneficiary states (as on 09-11-2022) are as under:

(Amount in Rs Crores)

| Sl.No. | | Beneficiary | Outstanding Dues (>45 Days) | Total Outstanding |
|---|---|---|---|---|
| 1 | | Manipur | 5.16 | 20.35 |
| | | **Total** | **5.16** | **20.35** |

As per Ministry of Power, Govt of India scheme, OTPC had agreed for payment in installments for outstanding dues from Manipur without levy of any surcharge amount for the benefit of Manipur state. Still Manipur state is not liquidating the current dues and the outstanding dues amount is again increasing. Whereas other beneficiary states of Palatana are clearing their dues without even availing this scheme. The forum is requested to impress upon Manipur to clear its current dues within due date of the bills.

***Deliberation of TCC***

TCC noted the above and placed for deliberation of RPC.

***Deliberation of RPC***

Manipur agreed to clear their outstanding dues at the earliest.

**ITEM NO. C.03 : OUTSTANDING DUES - POWERGRID**

The total outstanding dues (pertaining to both PoC as well as non-PoC billing) payable by NER beneficiaries to CTUIL/POWERGRID as on 04.11.2022 is detailed below: -

(All Figures in Rs Crores)

| STATE/DIC | OUTSTANDING DUES > 45 DAYS | TOTAL OUTSTANDING DUES | REMARKS |
|---|---|---|---|
| Ar. Pradesh | 0.00 | 11.57 | *Approx. 01 month receivable* |
| APDCL, Assam | 0.00 | 124.03 | *Approx. 02 months receivable* |

| | | | |
|---|---|---|---|
| MSPDCL, Manipur | **15.78** | 31.05 | *Approx. 05 months receivable (Rs. 9.42 Cr. being paid in EMI under LPS Rules,2022)* |
| MSPCL, Manipur | **0.71** | 0.90 | *Approx. 09 months receivable* |
| MeECL, Meghalaya | **5.43** | 23.16 | *Approx. 04 months receivable* |
| Mizoram | **19.00** | 29.06 | *Approx. 4 months receivables & Bilateral bills (approx. Rs. 14.49Cr.)* |
| Nagaland | 0.00 | 0.00 | |
| TSECL, Tripura | 0.00 | 14.18 | *Approx. 01 month receivable* |
| NEEPCO | **82.13** | 84.59 | *Bilateral bills* |

**Concerned DICs with >45 days outstanding dues, viz. Mizoram, MSPDCL, MeECL, NEEPCO & MSPCL** may be impressed upon to clear the outstanding dues immediately since POWERGRID and other transmission licensees (on behalf of whom CTUIL does the billing & collection) are facing financial constraints due to accumulation of such huge outstanding dues.

***Deliberation of TCC***

TCC noted the above and placed for deliberation of RPC.

***Deliberation of RPC***

All concerned constituents were requested to liquidate their respective dues at the earliest.

Mizoram, Manipur, MeECL and NEEPCO agreed to pay their outstanding dues soon.

**ITEM NO. C.04 : STATUS OF LC OF NER BENEFICIARIES (AS PER NEW REQUIREMENT) - POWERGRID**

As it is known to all concerned, Central Transmission Utility of India Ltd (CTUIL), a subsidiary of POWERGRID, has started functioning as CTU w.e.f. 01.04.2021 as per notification dated 09.03.2021 issued by MoP, GoI and accordingly, the Billing, Collection and Disbursement of transmission charges (*for PoC billing*), a function of CTU, is being undertaken by CTUIL with effect from **01.04.2021**.

Consequent to above, separate LCs in favour of CTUIL (*for PoC Billing*) and POWERGRID (*for non-PoC billing*) in place of existing LCs, which are in favour of

POWERGRID, are to be maintained by DICs in line with provisions of Regulation 19 of CERC Sharing Regulations, 2020 and to avail CTUIL rebate scheme for FY 2022-23.

The status of LCs (***as per above new requirement***) of NER DICs as on **04.11.2022** is as follows: -

| STATE/DIC | LC IN FAVOUR OF CTUIL (FOR POC BILLING) | LC IN FAVOUR OF POWERGRID (FOR NON-POC BILLING) |
|---|---|---|
| Arunachal Pradesh | Available (***enhancement required for Rs.5.34Cr.***) | **Not Available** |
| APDCL | Available | Available |
| MSPDCL | Available (***enhancement required for Rs.1.52Cr.***) | - |
| MSPCL | NA | **Not Available** |
| MeECL | Available | Available |
| Mizoram | Available | Available |
| Nagaland | Available | Available |
| TSECL | Available | Available |

**Arunachal Pradesh** and **Manipur** may be impressed upon to enhance their LCs to the requisite amounts.

***Deliberation of TCC***

TCC noted the above and placed for deliberation of RPC.

***Deliberation of RPC***

Arunachal Pradesh and Manipur agreed to enhance/open LCs as per requirement.

## 4. CATEGORY - D : ITEMS FOR INFORMATION

### ITEM NO. D.01 : BOARD FUND AND FURNISHING FUND AUDIT – NERPC

The Board Fund of NERPC for FY 2021-22 and 2022-23 (Mid-year upto Sep'22) and Furnishing Fund up to FY 2021-22 and 2022-23 (Mid-year upto Sep'22) have been

audited by constituents of NERPC which are based in Shillong i.e. MeECL, NERTS & NEEPCO.

***Deliberation of TCC***

NERPC informed that both the Board Fund and the Furnishing Fund Audits have been completed up to FY 2021-22 and FY 2022-23 (Midyear upto Sep'22).

*TCC noted as above and put up for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

| **ITEM NO. D.02** | **:** | **IMPORTANCE OF DEVELOPING SMALL HYDRO PROJECTS IN THE NER STATES UNDER MNRE, GOI:SHP SCHEME** |
|---|---|---|

The 22ndRPCdecided that a Resolution will be adopted to request Govt. of India to revive the earlier scheme from MNRE or any fund to tap the small hydro projects in the region as a special consideration for NER.

Accordingly, Chairman of NERPC has conveyed the resolution to the Hon'ble Union Power Minister vide letter dated 13th June 2022. (**Annexure-D.02**)

***Deliberation of TCC***

*TCC noted as above.*

***Deliberation of the RPC***

*The RPC noted as above.*

| **ITEM NO. D.03** | **:** | **PROVIDING SPARE MATERIALS IN TRANSMISSION LINE, EHV SUB-STATION AND DMS PACKAGES UNDER NERPSIP** |
|---|---|---|

In the 22nd TCC/NERPC meeting, POWERGRID was directed to take-up with MoP for inclusion of the additional equipment/spare materials since these are the requirements by the States. Chairman, NERPC assured that in case any assistance is required the forum will take up with MoP.

**Status as updated by POWERGRID/NERPSIP**

Spare for EHV substations have already been included in the awarded packages and same are being supplied by executing agencies which shall be handed over to the respective utilities.

Further spares of EHV transmission lines and DMS packages were not provisioned in the awarded packages. However same has been formulated as per request of the state utilities along with testing equipment for substation as well as transmission lines which is under approval.

***Deliberation of TCC***

*TCC noted as above.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. D.04 : REQUIREMENT OF MANPOWER UNDER NERPSIP/COMPREHENSIVE SCHEME**

In the 22nd NERPC meeting, POWERGRID was directed to assist the NER States for the initial period of 3 (three years) or till the finalization by MoP/CEA whichever is earlier.

The matter was subsequently followed up with CEA/MoP and Member (PS), CEA has conveyed to all States that the required manpower may be recruited by the States and the same can be recovered by filing petitions to respective regulatory commissions. (Copy of letter enclosed at **Annexure-D.04**)

***Deliberation of TCC***

*TCC noted as above.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. D.05 : ESTABLISHMENT OF STATE-OF-THE-ART TRAINING CENTRES**

Hon'ble Chairman, NERPC directed POWERGRID to take up with MoP for construction of the building and equip the State-of-the-Art training Center in each state within the CBIS Project.

**Status as updated by POWERGRID/NERPSIP**

POWERGRID is in the process of setting up State-of-the-Art Classroom training Center in all states. However, approval for Civil Works is yet to be obtained.

***Deliberation of TCC***

*TCC noted as above.*

***Deliberation of the RPC***

*The RPC noted as above.*

| | | |
|---|---|---|
| **ITEM NO. D.06** | **:** | **MERCHANT POWER ALLOCATION OF OTPC TO TSECL. - TSECL** |

TSECL is managing demand of the State including Cross Border commitment through IEX Purchase during any kind of outage of ISGS as well as state Generation. To mitigate the power management criticality considering increase of State demand in near future, TSECL has already communicated to OTPC for allocation of 40 MW Merchant power. In the Commercial forum, the matter was discussed in the 45th and 46th Commercial Committee Meeting. OTPC may expedite for allocation of merchant power to TSECL as per CERC tariff.

***Deliberation of TCC***

Chairman, TCC& MD, TSECL stated that the matter would be taken up with MD, OTPC separately and settled bilaterally. The forum requested OTPC/TSECL to resolve the issue at the earliest.

*This is for information to RPC*

***Deliberation of the RPC***

*The RPC noted as above.*

| | | |
|---|---|---|
| **ITEM NO. D.07** | **:** | **CONSTRUCTION OF 132KV MONARCHAK-SURJAMANINAGAR TRANSMISSION LINE. – NEEPCO** |

The proposed evacuation system from 110 MW TGBPS to Surjamaninagar is yet to be commissioned. Due to poor existing evacuation system, frequent tripping of both the Units have been experienced by NEEPCO. Though the matter has time and again been discussed in several Operation Coordination Committee Meetings of NERPC, M/s TSECL has still not indicated the proposed commissioning date.

Due to frequent tripping of existing lines and subsequent tripping of Units, NEEPCO has already observed major damages in the critical components of machines which in turn will reduce the expected life of the Units of TGBPS.

*View of NERLDC* - Due to tripping of Monarchak Units, loading of 132 kV Surjamaninagar – Surjamaninagar increases which leads to vulnerable situation in Tripura system and may lead to cascade tripping. Also due to tripping, Bangladesh drawal is reduced to 130 MW to maintain the loading the 132 kV SMNagar – SMNagar within limit. So NERLDC requests for early commissioning of the line.

In view of above, TSECL may please be requested to complete the construction work of the said line at the earliest.

***Deliberation of TCC***

NERLDC informed that till the above line is completed, Monarchak & Rokhia Backing down may occur during exigencies. Further, it may be noted that any outage of Monarchak generation due to loss of available evacuation paths results in over loading of 132 kV SM Nagar – SM Nagar line and thus curtailment of Bangladesh power supply leading to commercial loss for Tripura and NEEPCO.

The forum strongly urged upon TSECL to complete the above line at the earliest.

ED(O&M), NEEPCO stated that Monarchak GBPP is single unit (GTG/STG) generating station and the machine(s) are damaged due to repeated tripping of the connected lines. Thus, she implored TSECL through the forum for early commissioning of 132kV Monarchak – Surjamaninagar line.

GM, TSECL informed the forum about the current progress of 132kV Monarchak-Surjamaninagar i.e. 20 km stringing left, 2 tower foundation pending and pending 8 nos. tower erection. Further he committed completion by 31.03.2023.

*This is for information to RPC*

***Deliberation of the RPC***

*The RPC noted as above.*

| | | |
|---|---|---|
| **ITEM NO. D.08** | **:** | **INSTALLATION OF TRANSMISSION LINE SURGE ARRESTERS (TLSA) IN 132 KV KHLIEHRIAT- LESHKA D/C AND SPS AT LESHKA HEP– NERLDC.** |

The 132 kV Khliehriat – Leshka D/C is traversing through Jaintia Hills District of Meghalaya which falls under high isokeraunic level and the soil is found to be very resistive in nature as well. Due to such high isokeraunic level, repeatedly lightning strikes with heavy intensity occurs during thunderstorm due to which both these circuits have experience excessive tripping since commissioning and thus affecting

generation from Leshka Power Station to large extent. The quarter wise number of tripping due to lighting during 2021 & 2022 is given below-

| Year | Jan-March | Apr-Jun | Jul-Sep | Oct-Dec |
|---|---|---|---|---|
| 2021 | 1 | 4 | 10 | 0 |
| 2022 | 1 | 23 | 6 | 1 (till date) |

The issue was highlighted in 189th OCCM of NERPC. In the meeting, the forum requested MePTCL to submit a combined DPR to PSDF to install TLSA and SPS in these lines before the onset of monsoon season.

As per 193rd OCCM minutes, EE, MePTCL informed that multiple locations were treated for improvement of TFR. Further improvement of TFR in all the locations of the line has been proposed. He also informed that subsequent to receipt of report of MePGCL, the combined DPR of SPS, TLSA will be sent for PSDF funding.

MePTCL and MePGCL is requested to expedite the installation of TLSA in 132 kV Khliehriat- Leshka DC and implementation of SPS at Leshka HEP.

***Deliberation of TCC***

NERLDC informed that the 132 kV Khliehriat- Leshka D/C has tripped around 31 times since Jan'2022 on account of lightning which is a matter of serious concern. As TLSA shall prevent tripping due to lighting and SPS shall prevent repeated grid disturbances, it is prudent to submit combined DPR of SPS and TLSA to PSDF Secretariat for necessary funding.

Director(Trans), MePTCL informed that DPR for TLSA has been finalized. Director(Gen.), MePGCL informed that for SPS at Leshka associated hardware is available, however DPR for the same cannot be finalized due to no response from M/s ABB the OEM for SCADA/EMS at Leshka HEP.

RED, NTPC informed that NTPC will help to connect with M/s ABB at the earliest, so that OEM visit can be arranged ASAP.

The forum requested MeECL to submit the comprehensive proposal to PSDF Secretariat after completion of the above activities.

*This is for information to RPC*

***Deliberation of the RPC***

*The RPC noted as above.*

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|---|---|---|
| **ITEM NO. D.09** | **:** | **UTILIZATION OF 132 KV BAYS AT SILCHAR (PG) SUBSTATION AFTER UPGRADATION OF VOLTAGE LEVEL OF 132 KV SILCHAR – IMPHAL D/C TO 400 KV LEVELS AND 132 KV SILCHAR – PK BARI D/C TO 400 KV LEVELS: - NERLDC** |

132 kV Silchar – Imphal D/C have been charged at 400 kV levels during 2018-19. Similarly, 132 kV Silchar – PK Bari D/C have been charged at 400 kV levels in 2021.

Consequently, upon this upgradation of lines to 400 kV levels, 4 number of 132 kV Bays at 400/132 kV Silchar Substation are unutilized.

On the other hand, Haflong (PG) Bus is connected via two interconnections to the rest of the grid via 132 kV Jiribam (PG) – Haflong (PG) line and 132 kV Haflong (PG) - Umrangshu line. Haflong is an important town and headquarters of Dima Hasao district (formerly North Cachar Hills district) in the state of Assam. For strengthening the Haflong Area, another interconnection to Haflong (PG) is essential.

Also, the loading of 132 kV Silchar – Badarpur D/C reaches 47 MW in each circuit and is not N-1 complaint.

Utilization of the above-mentioned 4 number of 132 kV Bays at Silchar Substation is essential for appropriate resource utilization.

With the intend to optimally utilize the available regional resources at hand, it is proposed to construct a new interconnection viz. 132 kV Silchar (PG) – Haflong S/C with LILO at Badarpur (PG) utilizing the existing 132 kV Bays at Silchar Substation.

This would increase the reliability and strengthen the Haflong Area of Assam Power System and also ensure N-1 compliance during contingency of any one of the circuits of 132 kV Silchar – Badarpur circuits.
It is proposed to implement the above interconnection for a safe and integrated grid operation.

Members may please discuss.

***Deliberation of TCC***

CGM(i/c), NERTS informed that all 04 sets of Bay equipments and C&R Panels have been already shifted for Bays at Roing & Chapakhowa end of 132kV Roing –

Chapakhowa D/c Lines under NERSS X. However, space and civil infrastructure is available at Silchar and can be utilized. Further, at Badarpur & Haflong GIS, space for bay extension is available. CRP, Bay equipments at Silchar, Badarpur & Haflong and Bays at Badarpur, Haflong shall need to be considered under the project 132 kV Silchar – Badarpur- Haflong line.

TCC recommended the proposal and referred to CMETS.

*This is for information to RPC*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. D.10 : ADDITIONAL EVACUATION PATHS FOR KAMENG HEP AND RANGANADI HEP- NERLDC**

Kameng HEP (4x150 MW) having high annual dependable generation period is connected to the NER Grid via lone 400 kV Kameng – Balipara D/C. As the transmission lines pass through hilly terrain, the transmission lines are vulnerable to landslides and other natural phenomenon. Therefore, during any tower collapse, the entire generation of Kameng HEP will be out of service.

Keeping the safe and secure operation of the grid in the forefront, it is proposed to construct another interconnection from Kameng HEP to any other 400 kV node in the North Eastern Region.

Accordingly, system studies have been conducted by NERLDC and it has been found that Ranganadi HEP should be the best alternative for formation of another interconnection from 400 kV Kameng HEP. The proposed interconnection is of 150 km and is proposed to be constructed with Twin Moose Conductor. This arrangement can bring about electrical redundancy in both the HEPs.

It is therefore, proposed to form a new interconnection i.e. 400 kV Kameng – Ranganadi D/C (approximate line length is 150 km) using Twin Moose Conductors.

It is to be noted that in the 3rd NERPCTP held on 19th July'2021 under Chairmanship of Member (Power System), CEA, it was agreed that there is no requirement of additional evacuation lines from 600MW Kameng HEP.

***Deliberation of TCC***

CGM(AM), NERTS informed that during recent rains, heavy landslide had occurred which has endangered Loc. No. 53 of 400kV Kameng - Balipara D/C. In event of collapse of the tower it will lead to outage of complete Kameng generation.

Manager, CTU stated that considering N-1 the alternate lines were not approved.

Forum expressed concern about the contingency which may arise and referred the proposal for additional lines via alternate corridor for RHEP, Kameng HEP to the CMETS.

*This is for information to RPC*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. D.11 : IMPLEMENTATION OF AUTO-RECLOSURE IN INTRA-STATE LINES: - NERLDC**

As per 57th PCC, the forum decided that a list of Intra-state lines for Arunachal Pradesh, Manipur, Mizoram, Nagaland and Tripura shall be prepared and circulated by NERLDC for implementation of A/R.

The transmission licensees are requested to intimate the status of implementation of Auto-Reclosure in Intra-state lines.

***Deliberation of TCC***

State utilities updated the timeline for completion as below:

Arunachal Pradesh – By Dec'22

Manipur – By Mar'23

Mizoram – To be intimated

Nagaland – By Mar'23

Tripura – By Mar'23

Forum requested states to implement at the earliest

*This is for information to RPC*

***Deliberation of the RPC***

*The RPC noted as above.*

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| **ITEM NO. D.12** | **:** | **132KV DOUBLE CIRCUIT ROING-CHAPAKHOWA TRANSMISSION LINE- SUPPORT REQUIRED FROM GOVT. OF AR. PRADESH.: - POWERGRID** |

The 132KV D/C Roing-Chapakhowa Transmission Line is presently under execution by POWERGRID. Support of Government of Arunachal Pradesh & Assam is received from time to time in resolution of Right of Way issues for enabling continued progress of ongoing construction works. Considering the target for commissioning of the line, assistance of Govt. of Ar. Pradesh is requested in the following critical areas for facilitating timely completion of the project:

(i) Foundation Works at following sections (Non Forest Areas) are held up on account of severe Right of Way issues:

a) Loc. 26/0 to 32/4 in Jia & 7-Kilo area - 08 loc. affected.

b) Loc. 41 to 44 - 13 loc. affected.

(ii) Obstructions to works in Deopani Reserve Forest (20 Locations): Forest Clearance has been obtained from Regional MOEF on 10.06.2022 & work commenced in the Reserve Forest section. However, severe Right of Way Issues/ obstructions from Forest dwellers in the area have been frequently affecting the progress. With support of the Administration, foundation at 8 locations could be completed as on date. Foundation at the balance 12 locations, erection (20 locations) & stringing(5.5km) is critical to completion of the line.

(iii) Early finalization of Land & Surface Damage Compensation in connection with the ongoing construction works is requested for enabling disbursement to landowners in order to assuage obstructions to ongoing construction works in Ar. Pradesh portion of the line. The line is targeted to be commissioned within 2 months from resolution of the above issues.

Arunachal Pradesh may be impressed for providing necessary support for early commissioning of lines.

***Deliberation of TCC***

SE(Trans), DoP Ar.Pradesh stated that matter has been taken up with authority for approval. Presently DoP, Ar. Pradesh is actively engaging with the communities settled in the area to clear RoW. Further he assured that he will personally Visit all the concerned areas within Nov'22.

He further informed that all RoW issues will be resolved by Dec'22 and line construction will be completed by Feb'23.

TCC requested Govt. of Ar. Pradesh to resolve the issue for early commissioning of such an important line.

*This is for information to RPC*

***Deliberation of the RPC***

*The RPC noted as above.*

| | | |
|---|---|---|
| **ITEM NO. D.13** | **:** | **REQUIREMENT OF BUILDING AT UMRANGSHO TOWNSHIP FOR ESTABLISHMENT OF OFFICE AND RESIDENTIAL SETUP BY POWERGRID FOR O&M OF POWERGRID BAYS AT KHANDONG & KOPILI - POWERGRID** |

On completion of NERSS III at Kopili and restoration of POWERGRID bays at Khandong following assets will be required to be maintained by POWERGRID: -

**AT KOPILI –**

1. 220/132kV 160MVA ICT#1&2 (220kV Side AIS, 132kV side GIS)
2. 132kV Khandong#1&2 Line bays (GIS type)
3. 132kV Station Transformer Bay (GIS Type)
4. 132kV Bus Coupler (GIS Type)

**AT KHANDONG –**

1. 132kV Khlerihat#2 (AIS Type)
2. 132kV Kopili#2 (AIS Type)

Apart from above, following transmission lines are also associated with Khandong&Kopili HEPs.

1. 132kV Khandong KopiII#1&2
2. 132kV Khlerihat Khandong#1&2
3. 220kV Misa Kopili#1,2&3

In order to carry out O&M of above assets, there is requirement of Office & Residential set up at Umrangsho Township as detailed below: -

1. Office Set up – 4 Rooms (2 – Office, 2 – T&Ps / Testing Instruments etc.)
2. Staff accommodation – 7 Rooms, Kitchen & Dining space

The issue was discussed in 195th OCCM wherein NEEPCO informed that they will revert back after discussion with Management. Refer Item No. B.8 C 3 of 195th OCCM.

***Deliberation of TCC***

NEEPCO informed that they would provide necessary infrastructure for the same.

*This is for information to RPC*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. D.14 : DISBURSEMENT OF ENCASHED CBG AMOUNT TO DICS PENDING SETTLEMENT OF LEGAL DISPUTES ON RELINQUISHMENT CHARGES: - CTUIL**

In line with CERC Order dated 8.3.2019 passed in Petition No.92/MP/2015, CTU calculated relinquishment charges for LTAs relinquished by various generators and uploaded the same on its website from time to time. However, the relinquishment charges computed and notified by CTU in line with above CERC Order 08.03.2019 in Petition No. 92/MP/2015 was disputed by more than 20 relinquishing IPPs, who had filed appeals in APTEL which are pending adjudication. In view of pending disputes and GST issues concerning the raising of invoices, CTU issued demand letters to concerned relinquishing LTA customers pending disposal of appeals in APTEL.

During the proceedings in the matter, APTEL vide its order dated 08.10.2020 in Appeal no 251 of 2019, had restrained CTU from raising invoices with respect to the relinquishment charges during pendency of similar Appeals except where insolvency proceedings are faced by the generators. All the appeals on relinquishment charges are yet to be decided as on date and matter is being pursued by CTU. Further, where the IPPs are undergoing insolvency proceedings, CTU had filed claims before RPs/Liquidators for recovery of relinquishment charges.

Meanwhile, CTU encashed the CBGs of some of the IPPs who have abandoned their projects or undergoing insolvency proceedings and the encashed BG amount of approx. Rs 400 Crores was kept in FDs since the legal proceedings on relinquishment charges are still to be concluded and the BG amount may have to be refunded to IPPs along with interest in case of judgements in their favour in future.

The status of relinquishment charges and treatment of encashed BG amount has been reviewed in recent 42nd SRPC meeting held in Jun'22 and it was desired by the state utilities of SRPC that the BG amount be disbursed to all the DICs pending settlement of disputes on relinquishment charges. CTU informed that it is common money of all the five regions and cannot be given state-wise or region-wise and hence it needs to be taken up with all the RPCs for their consent. CTU further informed that, in case the BG amount is disbursed to the DICs in the pool and the disputes are settled in favor of the relinquishing IPPs later, the amount so disbursed in the pool shall be collected from respective DICs alongwith interest to refund to the IPPs. Copy of relevant extract of MOM of 42nd SRPC meeting is enclosed.

The NRPC / WRPC / ERPC / NERPC members may deliberate on the above and provide their consent on disbursing the encashed BG amount to the DICs in the pool with the conditions mentioned above, pending settlement of legal disputes on relinquishment charges.

***Deliberation of TCC***

After detailed deliberation, all the State utilities decided that the encashed BG amount be kept with CTUIL in the interim period.

*This is for information to RPC*

***Deliberation of the RPC***

*The RPC noted as above.*

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|---|---|---|
| **ITEM NO. D.15** | **:** | **NORTH EASTERN REGION STRENGTHENING SCHEME-XV (NERSS-XV): {KATHALGURI (NEEPCO) - NAMSAI (POWERGRID) 220 KV D/C LINE INCLUDING UPGRADATION OF NAMSAI SUB-STATION TO 2X160 MVA, 220/132 KV ICTS: ARUNACHAL PRADESH** |

The proposal of Arunachal Pradesh on the requirement of alternative interconnections at higher voltage levels was taken up in the First Meeting of North Eastern Region Standing Committee on Transmission (NERSCT) on 29.11.2018; and after a subsequent joint study meeting on 05.08.2019, the proposal was recommended for inspection of Kathalguri and Tinsukia Sub-Stations for ascertaining of space for bays by a team comprising of concerned stake holders lead by NERPC and to submit the report. Accordingly, pursuant to the report submitted by the team on 03.03.2020 after their visit to Kathalguri, Namsai and Tinsukia Sub-Stations, there by discussions and decision in the Second Meeting of North Eastern

Regional Power Committee (Transmission Planning) {NERPCTP}, a team comprising of all the stake holders lead by NERPC visited the Kathalguri, Namsai and Tinsukia Sub-Stations submitted the report to CEA, on 03.03.2020, based on which MoP, Government of India, accorded approval for development of the proposed Transmission Scheme through TBCB route vide Gazette Notification No. S.O. 2873(E), Dated 19th July, 2021. After completion of the statutory bid processes, M/s Power Grid Corporation of India Limited had been selected and recommended by the Bid Evolution Committee (BEC) for award of the work as the Transmission Service Provider, the work of which is mandated to be completed within 36 months of the transfer of the Special Purpose Vehicle (SPV).

The project is of utmost importance to state of Arunachal Pradesh as a redundant interconnectivity from the NER grid to enable reliable power supply to Central Eastern part of the state which is subjected to frequent supply disruption and outages in view of the lone and lengthy 132 kV radial line from RHEP to Namsai via Ziro, Daporijo, Aalo, Pasighat, Roing and Teju. Considering the priority importance and urgency of requirement, the status of the project may be apprised and the forum may take a view to constrict the completion timeframe suitably.

***Deliberation of TCC***

CGM(i/c), NERTS informed that project has been awarded to POWERGRID. For execution of the same SPV i.e. ER- NER Transmission Company has been formed with schedule completion within 36 months.

*This is for information to RPC*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. D.16 : DEVELOPMENT OF RENEWABLE ENERGY PROJECTS IN NER STATES: NTPC**

GOIs NDC for Climate Change

In line with GOI Nationally Determined Contributions of reaching 50% of installed capacity by RE sources Ministry of Power has revised the RPO obligations for all states from 24.61% in 2022-23 to 43.33% by 2029-30

Penalties for not meeting RPO obligations

States who are not able to meet the RPO obligations will have to buy RE certificates which at present are ranging from Rs. 1.00 to Rs. 2.20 per unit.

The present waiver of ISTS charges shall not be available for projects commissioned beyond March 2025.

RE potential in NER States

As per MNRE report the RE potential in various states of NE is to the tune of 65000 MW against which only 570MW is installed capacity in NER States. A huge potential still lies untapped.

There is a need for NER states to expeditiously come up with progressive RE policies

To achieve this Target all NER states need to come up with progressive RE Policies in line with other states such as Jharkhand and UP so that investors are incentivized to invest in RE projects in these states and the RE projects become financially viable.

Some of the incentives that RE policies may include are:

- Single window registration and approvals for RE projects
- Identification and allotment of suitable land for RE projects at nominal rates
- Deemed conversion of land for non-agricultural purpose
- Conduct feasibility study for all identified Solar land bank
- Providing connectivity to nearest Grid Substation/ Reimbursement of transmission line connection
- Waiver/exemption of Stamp duty/ Electricity duty, court fees
- exemption of Cross subsidy surcharge and Wheeling charges/ Transmission charges for Intrastate Transmission system
- Augmentation of communication infrastructure by state at RE project sites.

NER states to proactively bring out the RE policies and take further steps to bring in RE projects in the NER states.

***Deliberation of TCC***

RED, NTPC stated that RPO obligation has stiff requirements so all states should have RE policy. Rather than purchasing RECs, states should have RE generators, so that the RE power can be sold in market in case of surplus.

*TCC noted as above.*

*This is for information to RPC*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. D.17 : TRANSMISSION SYSTEM FOR PROVIDING CONNECTIVITY TO DIBANG HEP - NERPC**

M/s NHPC Ltd. had requested for grant of 2880MWconnectivity for its Dibang HEP (12x240MW) generation project in Arunachal Pradesh. Arunachal Pradesh has huge hydro potential. CEA has developed a Master Plan for power evacuation of about37GW hydro projects in Arunachal Pradesh to other parts of the country through 7 no. ±800kV, 7000MWHVDC bipole lines. The hydro projects in different basins are being taken up in phases. With phased development of hydro project, various high capacity EHV substations are required to be established in border areas of Arunachal Pradesh and Assam for pooling of hydropower, and further establishment of high-capacity evacuation lines from these pooling points are necessary for power evacuation. Such transmission systems need to be developed in ISTS for seamless integration of various hydro projects at pooling points located in Arunachal Pradesh or Assam. Due toabsence of any pooling point in upper Assam or Arunachal Pradesh, Dibang HEP needs to be pooled at a new poling point such that the same pooling point could also be utilized for pooling of other hydro projects in future. Also, there was requirement of a new 400kV substation in Upper Assam (North of Brahmaputra River) to augment power supply to areas in upper Assam and Arunachal Pradesh. Considering the availability of land in upper Assam (North of Brahmaputra River) and Arunachal Pradesh, terrain and Row of Way (RoW) requirement in that area for future transmission lines, optimization of transmission system is very essential. Accordingly, it is planned to provide Connectivity to Dibang HEP at its switchyard through ISTS line so that as per requirement this immediate evacuation line under ISTS can also be used for power evacuation from other HEPs in future. In view of the above, a new 400kV substation has been planned at Gogamukh through LILO of one D/c (ckt-1 &ckt-2 of D/c line-1) of Lower Subansiri – BiswanathChariali 400kV (Twin Lapwing) 2xD/c lines, which are being taken up for implementation under NERES-XVI scheme (expected by Mar 2025). The Dibang HEP has been planned to be pooled at Gogamukh through 400kV2xD/c (Quad) ISTS lines. For further power evacuation, Gogamukh – BiswanathChariali 400kV (Quad) D/c line has been planned.

**Name of the Scheme**: Transmission system for providing connectivity to Dibang HEP
Scope of the Scheme
i. Dibang – Gogamukh 400kV 2xD/c (Quad) line

ii. Extension works at Gogamukh S/s at 400kV level

• 4 no. of 400kV line bays for termination of Dibang – Gogamukh 2xD/c lines

• 4x63MVAr switchable line reactors at Gogamukh end of Dibang – Gogamukh 400kV 2xD/c lines, one in each circuit
Upstream network associated with the scheme

Upstream network to be implemented under ISTS:

- Establishment of Gogamukh 400/220/132kVsubstation under NERES-XVI by Mar 2025.

Upstream network to be implemented by Dibang HEP developer:

- 4 no. of 400kV line bays at Dibang HEP switchyard for termination of Dibang – Gogamukh 400kV D/c2xD/c (Quad) lines along with 4x63MVAr switchable line reactors at Dibang end, one in each line.

To be implemented matching with Dibang HEP (expected by May 2029) and after completion of Gogamukh S/S (expected in Mar 2025).

Inclusion of wildlife/protected area: The transmission line route may infringe Mehao wild life sanctuary in the state of Arunachal Pradesh. However, for details of forest/protected areas survey is required to be done.
Estimated Cost: INR 1650 Cr.
Impact on Annual Transmission Charges (considering levelized tariff @ 15% of estimated cost): INR 247.50Cr.

**Name of the Scheme**: Transmission system for power evacuation from Dibang HEP
Scope of the Scheme
i. Gogamukh – BiswanathChariali 400kV D/c(Quad) line

ii. Extension works at BiswanathChariali(POWERGRID) S/s at 400kV level

2 no. of 400kV line bays for termination ofGogamukh – BiswanathChariali 400kV D/c(Quad) line at BiswanathChariali

Extension works at Gogamukh S/s at 400kV level

2 no. of 400kV line bays for termination of Gogamukh – BiswanathChariali 400kV D/c(Quad) line

2x80MVAr switchable line reactors at Gogamukh end of Gogamukh – BiswanathChariali 400kV D/cline, one in each circuit
Upstream network associated with the scheme
Upstream network to be implemented under ISTS:

- Establishment of Gogamukh 400/220/132kVsubstation under NERES-XVI by Sep 2025.

To be implemented matching with Dibang HEP (expected by May 2029) and after completion of Gogamukh S/S (expected in Sep 2025).
Estimated Cost: INR 852Cr.
Impact on Annual Transmission Charges (ATC): INR 127.80Cr.

Assets under this scheme – **Table 1**

| Name of the Asset | | From Station | To Station | Scope |
|---|---|---|---|---|
| Line | 400kV Quad Moose 2xD/C Line | Dibang HEP | Gogamukh | TBCB |
| | 400kV Quad Moose D/C Line | Gogamukh | Biswanath Chariali | |
| Bays | 400kV bays at Dibang HEP – 4nos | Dibang | | NHPC |
| | 400kV bay extension – 4 nos | Gogamukh | | TBCB |
| | 400kV bay extension – 2nos | Biswanath Chariali | | TBCB |
| | 400kV bay extension – 2nos | Gogamukh | | TBCB |
| Reactors | 4x63MVAR switchable Line Reactors at Dibang for Gogamukh | Dibang | | NHPC |
| | 4x63MVAR switchable Line Reactors at Gogamukh for Dibang | Gogamukh | | TBCB |
| | 2x80MVAR switchable Line Reactors At Gogamukh for BNC | Gogamukh | | TBCB |

Approved link assets – **Table 2**

| Name of the asset | | From Station | To Station | Scope |
|---|---|---|---|---|
| Line | LILO of 400kV Twin Lapwing Lower Subansiri – BNC D/C- I | Lower Subansiri | Gogamukh | TBCB |
| | | Gogamukh | BNC | TBCB |

| | | | | |
|---|---|---|---|---|
| Station | 400/220/132kV GSS at Gogamukh | | | TBCB |

In 22nd TCC/RPC held in Mar'22 the forum was of the view that further study is required to exactly assess the location of link Sub-station( i.e. Gogamukh) and connectivity to best serve the load centers in Assam and Arunachal Pradesh. Hence TCC requested AEGCL to submit the supporting data to CEA for further studies.

TCC decided to take up Transmission Planning for Dibang HEP after completion of the above exercise.

In the Special Meeting held under Chairmanship of Member Secretary, NERPC on 11th July'2022 at Shillong the forum approved in-principle the Scheme listed at **Table 1** for Evacuation of Power from Dibang HEP at a total estimated cost of INR 852 Cr. and referred to the next TCC/RPC meeting for approval.

***Deliberation of TCC***

CTUIL informed that Dibang HEP has applied to CTU for connectivity. Accordingly, connectivity was planned from Dibang to Gogamukh to Biswanath Chariali. Also ,Gogamukh has been approved under NERSS-XVI. Under the above proposal, generation connectivity has been planned from Dibang to Gogamukh and under evacuation (LTA) Gogamukh to Biswanath Chariali. However, under new GNA regulations, generating station has to be given for connectivity and evacuation together, so both the proposal has to be combined. Recently NHPC has given consent for the same under GNA. Thus, the modified proposal will be put up in the next TCC/RPC meeting.

The forum referred back to CMETS.

*This is for information to RPC*

***Deliberation of the RPC***

*The RPC noted as above.*

## ITEM NO. D.18 : MEMBERS OF NERPC AS PER MOP RESOLUTION DATED 3RD DECEMBER 2021

According to the MOP resolution dated 3/12/2021, the following are also to be included as members in the NER Power Committee apart from existing members.

- Central Government Owned Transmission Company (ie, POWERGRID).

POWERGRID was earlier member of NERPC by virtue of being CTU.

- A representative each of State Gencom, Transcom & Discom (ie, unbundled utilities of NER ie., MD AEGCL, MD APGCL, MD APDCL, MD MSPCL, MD MSPDCL, MD MeECL (MePTCL/MePGCL/MePDCL), MD TSECL, MD TPGL etc)
- A representative of Pvt Transmission Licensee as nominated by Central Government. For FY 2022-23, ENICL (Indigrid) has been nominated as member of NERPC.
- A representative each of every generating company (other than central or state owned gencoms) having more than 1000MW installed capacity in the region.
- A representative of generating companies other than central or state owned gencoms having power plant in the region not having capacity more than 1000 MW by alphabetical rotation.
- A representative of Pvt Discoms functioning in the region by alphabetical rotation.
- A representative each of every nodal Agency appointed by the Government of India for coordinating cross-border power transactions with the countries having electrical inter-connection with the region.

***Deliberation of the TCC***

TCC noted as above and put up for information to RPC

***Deliberation of the RPC***

*The RPC noted as above.*

## 5. CATEGORY - E : ITEMS RECOMMENDED FOR REFERRAL TO SUB-COMMITTEE

### ITEM NO. E.01 : INSTALLATION OF TWO NUMBERS GENERATOR TRANSFORMER FOR MYNTDU LESHKA HEP – MePGCL

**PROPOSAL:** Procurement of (2) nos. of Generator Transformers 17.5 MVA, 11/3132 KV with accessories etc. as spares for MLHEP Power Station.

**Explanatory Note:** Myntdu-Leshka Power Station is a generating station has three units 42 MW each, with 9 nos. of 17.5 MVA, 11/132 KV single phase Generator

Transformers (3 nos for each unit). A 10th spare Generator Transformer has been kept as a provision, in the event of failure of any of the single-phase Generator Transformers.

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

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

Tentative Cost Estimate: 6.5 Crores.

Due to paucity of fund constraints, MePGCL is requesting the forum to consider recommending the funding of this project from PSDF.

***Deliberation of the TCC***

The forum opined that the item is to be first discussed in Sub-Committee meetings of NERPC for detailed study and is therefore referred to the Sub-Committee(s) of NERPC.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. E.02 : INSTALLATION OF RACCOON COVERED CONDUCTOR FOR 33KV POWER SUPPLY FROM MYNTDU LESHKA STAGE-1 POWER STATION TO MLHEP DAM.: - MePGCL**

PROPOSAL: Proposal for Installation of 33Kv Raccoon covered conductor with accessories etc. for 33KV power supply from Myntdu-Leshka Power Station to MLHEP Dam.

**Explanatory Note:**

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

In light of the above and to mitigate outage and maintain uninterrupted 33KV Power Supply to MLHEP Dam, which is requires for continuous operation of the sluice gates for safety purposes during the peak monsoon season, and as a vital requirement for the Run of the River Dam, it is proposed for installation of 33KV power supply from Muntdu-Leshka Power Station to MLHEP Dam. Tentative Cost Estimate: 4 Crores

**Due to paucity and fund constraints, MePGCL is requesting the forum to consider recommending the funding of this project from PSDF.**

***Deliberation of the TCC***

The forum opined that the item is to be first discussed in Sub-Committee meetings of NERPC for detailed study and is therefore referred to the Sub-Committee(s) of NERPC.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. E.03 : INSTALLATION OF OPEN LOOP COOLING WATER SYSTEM AND IMPROVEMENT OF DEWATERING FOR MYNTDU LESHKA STAGE-I POWER STATION: - MePGCL**

PROPOSAL: Proposal for installation of Open loop cooling water system for Myntdu-Leshka Stage-I Power Station.

**Explanatory Note:**

The Myntdu-Leshka Stage-I Power Station being Run of the River scheme, has been designed with a plant load factor of 44% and is expected to generate around 484 MU by design per annum.

The existing Cooling System for the three units of 42 MWs each of the Myntdu-Leshka Power Station is of a closed loop system which include the primary and secondary cooling water pumps.

The breakdown of these pumps during their continuous operation usually contributes to the outages of the units. With the proposal Cooling System in place it will mitigate the outages due to the failure of cooling water pumps grid disturbances and clogging of heat exchangers reduction in maintenance cost of the primary cooling water system consisting of pipes, flanges valves pumps filters and heat exchangers due to exposure to acidic nature of the water. This will be vital for the maintaining the availability of Power Generation in the region and in particular the state of Meghalaya.

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

Further the existing system for Dewatering of the tail race water in the even of any emergency planned or forced maintenance of the underwater components of the T&G set is only through the Primary Cooling, Drainage and Dewatering System of U3 wherein its delivery outlet Pumps the water to the Lynriang River. This system takes around approximately 60 hours to deliver the tail race water (approx 50,00,000 ltrs) to the river. By modification of the system, and extending the primary, Drainage and

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

In line with the above, it is proposed that an open looped cooling system and Improvement of the Dewatering System for the benefit of the MyntduLeshka Stage – I Power Station and the stability of the grid as a whole.Tentative Cost Estimate: 7.6 Crores

Due to paucity and fund constraints, MePGCL is requesting the forum to Consider recommending the funding of this project from PSDF.

***Deliberation of the TCC***

The forum opined that the item is to be first discussed in Sub-Committee meetings of NERPC for detailed study and is therefore referred to the Sub-Committee(s) of NERPC.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. E.04 : ERECTION, PROCUREMENT AND COMMISSIONING OF 33Kv BUS IN VARIOUS GSS- MePTCL**

Meghalaya Power Transmission Corporation Limited (MePTCL) proposed for construction of 33 KV Bus and outgoing 33 KV feeders with all terminal equipments along with Control and Protection System where 33 KV bus are not available in the following 132 KV Grid Sub Stations:

1. 132/33 KV Umiam Grid Sub Station- 33 KV bus with 2 outgoing 33 KV feeders
2. 132/33 KV EPIP-I Grid Sub Station- 33 KV bus with 1 outgoing 33 KV feeder
3. 132/33 KV Khliehriat Grid Sub Station- 33 KV bus with 3 outgoing 33 KV feeders
4. 132/33 KV Lumshnong Grid Sub Station- 33 KV bus with 2 outgoing 33 KV feeders

***Deliberation of the TCC***

The forum opined that the item is to be first discussed in Sub-Committee meetings of NERPC for detailed study and is therefore referred to the Sub-Committee(s) of NERPC.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. E.05 : RE-CONDUCTORING OF 132KV MAWPHLANG-MAWLAI S/C LINE BY HTLS CONDUCTOR.: - MePTCL**

To cater to the increase power flow towards the capital city and surrounding areas of Shillong in the event of bus shutdown of Stage-I Power Station, it is proposed for re-conductoring of 132KV Mawphlang-Mawlai S/C line by HTLS Conductor.

Funding of the above proposal can be obtained from PSDF.

***Deliberation of the TCC***

The forum opined that the item is to be first discussed in Sub-Committee meetings of NERPC for detailed study and is therefore referred to the Sub-Committee(s) of NERPC.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. E.06 : INSTALLATION OF CAPACITOR BANKS IN 132kV SUSTATIONS: - MePTCL**

Due to low voltage problem during peak hours at these Substations, it is proposed for installation of Capacitor Banks at the following 132KV Substation:

(i)132KV Rongkhon Substation

(ii) 132KV Ampati Substation

(iii) 132KV NEHU Substation

(iv) 132KV Mawlyndep Substation.

Funding of the above proposal can be obtained from PSDF.

***Deliberation of the TCC***

The forum opined that the item is to be first discussed in Sub-Committee meetings of NERPC for detailed study and is therefore referred to the Sub-Committee(s) of NERPC.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. E.07 : REQUIREMENT OF 132/33KV, 2X25MVA SUB-STATION AT NONGPOH: - MEPTCL**

Requirement of 132/33 kV, 2X25 MVA Sub Station at Nongpoh with LILO of 132 kV Stage-III - Umtru Line. This district has been declared as Asp rational District by NITI Aayog. It is also the most industrialized district of the State of Meghalaya contributing to the economy and development of the State and the region. It has the maximum number of Hydro stations in the state and also the oldest Hydro Power Station in the region. Besides this district lies between Shillong and Guwahati. Although a number of Grid stations have been installed in the industrial area of the district but the head quarter is not having any 132KV substation to cater to the growing load demand and power supply reliability for the common public.

Further areas adjacent to Byrnihat 400/220/132kV substation which are contiguous to Guwahati city do not have a single 132/33kV substation rendering poor quality of power supply to residents of Chariapara and its adjoining areas.

It is therefore proposed that following Grid substations and associated lines be set up in the interests of the general public.

i. 132/33KV Substation at Nongpoh with LILO of Stage III- Umtru line.
ii. 132/33kV Substation at the existing 400/220/132kV Killing Substation with LILO of 132 kV Umtru - Kahelipara D/C.

The same proposal was put up to CEA as part of 2030 Augmentation plan. After studies CEA has approved 132/33kV 2x25MVA Substation at Nongpoh with 132kV New Shillong – Nongpoh D/C line.

***Deliberation of the TCC***

The forum opined that the item is to be first discussed in Sub-Committee meetings of NERPC for detailed study and is therefore referred to the Sub-Committee(s) of NERPC.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. E.08 : REQUIREMENT OF 132/33KV, 2X25MVA SUB-STATION AT SHANGPUNG: - MEPTCL**

For N-1 of Khliehriat and load growth of Laskein Block and to ensure system stability, it is proposed to set up a 132/33 kV 2X25 MVA Sub Station at Shangpung with LILO of both the circuit of proposed New Shillong to Khliriet (PG) 132 kV D/C line at Shangpung.

***Deliberation of the TCC***

The forum opined that the item is to be first discussed in Sub-Committee meetings of NERPC for detailed study and is therefore referred to the Sub-Committee(s) of NERPC.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. E.09 : REQUIREMENT OF 132/33KV, 2X25MVA SUB-STATION AT UMIEW: - MEPTCL**

To cater to the growing demand of Upper Shillong and its adjoining areas a 132/33 kV 2X25 MVA Sub Station at Umiew(which includes Director General, Assam Rifles & Eastern Air Command) with LILO of 132 KV Sohra - New Shillong Line is proposed.

***Deliberation of the TCC***

The forum opined that the item is to be first discussed in Sub-Committee meetings of NERPC for detailed study and is therefore referred to the Sub-Committee(s) of NERPC.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. E.10 : RECONDUCTORING OF 132kV NEHU-MAWLYNDEP-MUSTEM-KHLIEHRIAT LINE: - MePTCL**

In order that snapping of conductors due to overloading and de-capping can be avoided, it is proposed to reconductor the 132kV NEH1J-Mawlyndep- Mustem-

Khliehriat S/C line with high temperature and low sag (I-ITI_S) conductor using the same towers. With this enhanced capacity the grid will be more flexible and this will lead to fewer disturbances in the grid.

***Deliberation of the TCC***

The forum opined that the item is to be first discussed in Sub-Committee meetings of NERPC for detailed study and is therefore referred to the Sub-Committee(s) of NERPC.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. E.11 : IMPLEMENTATION OF LINE DIFFERENTIAL PROTECTION OF 400 KV NEW THOUBAL-IMPHAL D/C- NERLDC**

As per 47th PCC meeting, the following criterion was decided for adoption for identification of short line for differential protection: -

- All 132 kV transmission lines of length < 5 Kms.
- All 220 kV transmission lines of length < 10 Kms
- All 400 kV transmission lines of length < 50 Kms
- All 132 kV & above dedicated transmission lines of Generators with installed capacity > 50 MW

The distance of 400 kV Imphal (PG) - Thoubal D/C lines is 45.11 km. Hence, differential protection scheme is required.

The clearance for FTC of the lines was given by NERLDC based on consent from NERPC that MSPCL has submitted undertaking for installation of differential relay and the 400 kV Imphal-Thoubal D/C may be presently made operational with distance relays.

The latest status of commissioning of Line Differential Protection in 400 kV Imphal – Thoubal D/C may be intimated by MSPCL.

***Deliberation of the TCC***

ED, MSPCL informed that the existing infrastructure has been studied and the Line Differential Protection can be implemented, however Thoubal-Imphal Fiber connectivity is not there. After availability of OPGW the LDP can be implemented.

After detailed deliberation the forum recommended for a review of the philosophy of Line Differential Protection for 400kV line and referred to Sub-Committee of NERPC.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. E.12 : REGARDING REQUIREMENT OF 400 KV LINE REACTORS AT BALIPARA END FOR 400 KV BALIPARA – BISWANATH CHARIALI CIRCUIT I AND II: - NERLDC**

50 MVAR 400 kV BiswanathChariali II Line Reactor at Balipara (PG) is under continuous shutdown till 28th Feb 2023. One more 50 MVAR line reactor is available for Balipara - BiswanathChariali I at Balipara (PG). Due to very stable voltage profile at Balipara round the year, these reactors are rarely used for grid operation.

On the other hand, 400/220 kV Killing Substation has high voltage profile, especially during lean hydro periods as shown in the Figure a below.
System Studies show that shifting 50 MVAR reactor to Killing Substation will bring down the voltage at 400 kV Killing Bus by 4 kV.

It is therefore, proposed to shift one 400 kV Line Reactor at Balipara (PG) to 400 kV Killing Substation for better reactive power management in the NER Grid.

***Deliberation of the TCC***

MePTCL informed that 80MVAr Bus Reactor shall be commissioned by December 2022. Hence, requirement of shifting the Reactor from Balipara to 400kV Killing S/s may not be required. After detailed deliberation the forum requested NERLDC to carry out study and suggest suitable location for shifting of 400kV Line Reactor at Balipara.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. E.13 : FIBER CONNECTIVITY FOR GUWAHATI ISLANDING SCHEME: - NERLDC**

As per direction of MoP, GoI Islanding scheme for Guwahati has to be established in near future. To ensure successful operation of this Islanding Scheme, suitable fiber-optic connectivity is imperative at each identified node of the scheme. After detailed discussions and analysis, OPGW along with associated end-equipment are required in the list of transmission lines.

TCC/NERPC may kindly approve the OPGW works incl. end-equipment as necessary and listed in appropriate Annexure to facilitate successful operation of Guwahati Islanding Scheme.

***Deliberation of TCC***

After detailed deliberation the forum referred the matter back to Sub-Committee of NERPC.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. E.14 : GUWAHATI ISLANDING SCHEME - NERPC**

MoP vide O.M. dated. 09.11.2021 had approved for 100% funding from PSDF of Guwahati Islanding Scheme. The logic involving at least two units of BgTPP generating at or greater than Technical Minimum prior to Island formation was endorsed in 43rdCCM of NERPC held on 17th December'2021. Accordingly, DPR has been prepared in consultation with AEGCL/APGCL/APDCL/NERTS/NTPC/NERLDC and the same is put up for discussion & approval.

***Deliberation of TCC***

Member Secretary informed that the estimated cost for Guwahati Islanding Scheme is ₹84.88Cr (including taxes). The forum felt that the estimate is exorbitant and referred to Sub-Committee for review.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

| **ITEM NO. E.15** | **:** | **INSTALLATION OF AWS BY IMD, GUWAHATI: - NERLDC** |
|---|---|---|

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

In 191st OCC, some states had expressed the need for entering into MoUs with IMD in order to clarify on various issues. In 194th OCC, regarding NoC and MoU, Assam and Arunachal Pradesh clarified that NOC will only be given after signing of MoU between IMD and individual states. After detailed deliberation, the forum requested NERLDC to co-ordinate with IMD and request them to present the draft MoU in the next meeting.

During 195th OCCM of NER, representative from IMD in his presentation mentioned that following status:

**Tripura:** AWS Installation is completed in Tripura. 7 New AWS have been installed either in Power stations or nearby to proposed locations

**Mizoram:** AWS Installation is going in Mizoram. 8 New AWS have been installed covering 8 districts of Mizoram.

**Meghalaya:** AWS Installation will begin from first week of November. Among the 4 sites whose NOC is available, 3 AWS are already installed in nearby location. 4th one will be installed at Mynkre by November end. 3 more will be installed in Mawkyrwat, Resubelpara and Ampati by Nov'22.

**Manipur:** Undergoing

**Nagaland:** Undergoing

**Assam:** Yet to be started

**Arunachal Pradesh:** Yet to be started

During the 195th OCCM, the forum requested that for the benefit of other states the said draft MoU prepared by Assam may be circulated among all the states and

requested all the other states to provide inputs on the draft MoU prepared by Assam so that the same may be finalized as early as possible.

It is requested to all the remaining constituents to provide the NoC to IMD so that the installation of AWS can be done at the earliest in the remaining states. This would improve the weather data availability and would further improve the load forecasting of the states.

***Deliberation of TCC***

Forum requested Assam to sign the MoU at the earliest. Forum also noted that MoU is not mandatory and once NoC is given, IMD may proceed with installation. After detailed deliberation the matter was referred to Sub-Committee for monitoring and implementation.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

**ITEM NO. E.16 : REVISION OF BASE PRICE FOR AMC OF SCADA: - MSPCL**

A contract was signed between MSPCL and GE T&D India Ltd (formerly known as Alstom T&D India Ltd) on 2nd April 2014 for Annual Maintenance for SCADA systems implemented at SLDC for the period of seven years (one year Defect Liability Period (DLP) and 6 years Annual Maintenance Contract (AMC)) starting from November 2016.

The AMC price has 3 components viz. base price, variable price (which depends on Labour Index published by Labour Bureau of India) and tax. A sample of "Price calculation to derive base price of GE and NER states are shown below. At the time of signing the contract, the service tax was 12.36%. However, it has come to our notice that there is difference in base price for AMC with GE T&D Ltd. for "Replacement/Upgradation of existing SCADA/EMS system of NERLDC and SLDCs of NER" for the constituent w.r.t NERLDC base price (adjusted after the introduction of GST 18%).

Comparison of Base Price of AMC (Quarterly Basis) of RLDC & NER States (Including Manipur):

| | For RLDC | | | For Manipur | | |
|---|---|---|---|---|---|---|
| Calculated | INR | Taxes | INR | INR | Taxes | INR |
| DLP | 755525.42 | 18% | 891520.00 | 793449.63 | 12.36 | 891520.00 |
| 6 Yrs | 14036385. | 18% | 16562935.01 | 14740953.1 | 12.36 | 16562935 |
| | | Total | 17454455.01 | | Total | 17454455.01 |
| | Base Price | | | Base Price | | |
| Quarterly AMC | 584849.40 | | | 614206.383 | | |

Base Price of GE AMC for SCADA of RLDC and NE States:

| SL. No. | State | Base Price (in ₹) | Remark |
|---|---|---|---|
| 1 | RLDC | 5,84,849.40 | Base price adjusted from₹ 6,14,206.383 to ₹5,84,849.4 |
| 2 | Manipur | 6,14,206.38 | Not adjusted |
| 3 | Tripura | 6,14,206.38 | Not adjusted |
| 4 | Nagaland | 6,14,206.38 | Not adjusted |
| 5 | Meghalaya | 6,14,206.38 | Not adjusted |

Since the AMC is covered under the same scheme for all the utilities concern, the base price should be uniform and should be adjusted accordingly for the all the constituents too.

The forum may please advise for the same.

***Deliberation of TCC***

ED, MSPCL informed that payment under existing contract has been withheld as there is disparity between Base Price for Manipur and NERLDC. Member Secretary, NERPC stated that the matter is under discussion with M/s GE, POWERGRID, NERLDC and is expected to be resolved soon. After detailed deliberation the forum recommended uniform base price for all SLDCs & NERLDC and referred the matter to Sub-Committee for resolution.

*TCC noted as above.*

*This is for information to RPC.*

***Deliberation of the RPC***

*The RPC noted as above.*

## CATEGORY – F : RESOLUTIONS ADOPTED DURING THE 23RD NERPC MEETING

The North Eastern Regional Power Committee (NERPC) unanimously resolved in the 23rd NERPC meeting held on 19th November, 2022 in Goa the following:

That this Committee strongly urges upon Ministry of Power, Government of India as follows:

### RESOLUTION. F.1 : FUNDING OF RELIABLE COMMUNICATION AND DATA ACQUISITION SCHEMES UNDER PSDF WITH THE FUNDING RATIO OF 90:10, CENTRAL: STATE

The primary function of the communication network is to provide a highly secured and reliable voice and data communication system in support of the WAM (Wide Area Monitoring) System, SCADA/EMS system, Protection System, Market Operation Service and Service Providers (Forecast, Weather and Ancillary Services). The service provided for low & high-speed data, express voice circuits and administrative voice circuits.

The communication system shall finally form a wideband backbone network on all India basis to support the requirement of the Power System Operation and Market Operation.

Reliable communication is one of the crucial issues of Power System in NER and at present the communication network in NER is far behind as compared to the other regions of the country.

Presently, for the reliable communications and data acquisition scheme, there is a provision of only 50% funding through PSDF and the remaining 50% is to be funded by the respective States on the pretext of commercial use of extra fibers. However, with thin population in NER, substantial commercial use of extra fiber for leasing the bandwidth is not viable.

***Considering the poor financial conditions of NER States, The NERPC forum resolved in the 23rd NERPC meeting to strongly urge the Central Government to consider the funding of reliable communication and data acquisition schemes under PSDF with the funding ratio of 90:10, Central : State, in line with other centrally sponsored schemes for NER states.***

## DATE & VENUE OF THE NEXT MEETING

The next meeting ie., 24th TCC & 24th NERPC meeting(s) is proposed to be held in May/June, 2023. The exact date & venue will be intimated later. As per roster, DoP Arunachal Pradesh will be the host for the next 24th TCC/RPC Meetings.

***The meeting ended with vote of thanks to the Chair***

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# ANNEXURES

**ANNEXURE - I**

## LIST OF PARTICIPANTS IN THE 23RD TCC MEETING

| SN | ORGANISATION | NAME (S/SHRI) | DESIGNATION |
|---|---|---|---|
| 1 | ARUNACHAL PRADESH | Sh. T.K. Tara | SE (Trans.) |
| 2 | | Sh. Nongkong Perme | SE & Head of SLDC |
| 3 | ASSAM | Sh. Mir Rafiul Amin Dewan | CGM (COM&EE), APDCL |
| 4 | | Sh. Paragjyoti Kalita | AGM (APDCL) |
| 5 | | Sh. Ashutosh Bhattacharya | DGM, SLDC, AEGCL |
| 6 | | Sh. Rajarshi Sharma | AGM, AEGCL |
| 7 | MANIPUR | Sh. Shanti Kumar Singh | CE (Power) & ED (T), MSPDCL/MSPCL |
| 8 | | Sh. S. Priyananda Singh | General Manager (Trans), Manipur |
| 9 | | Sh. N. Jasobanta Singh | General Manager (SLDC), Manipur |
| 10 | | Sh. Y. Dayanta Kumar Singh | Manager (Projects), MSPDCL |
| 11 | MEGHALAYA | Sh. E. B. Kharmujai | Director (Trans.), MePTCL |
| 12 | | Sh. M. Shangpliang | Director (Gen.), MePGCL |
| 13 | | Sh. M. Marbaniang | CE (Gen), MePGCL |
| 14 | | Sh. J. Hynniewta | CE (Trans), MePTCL |
| 15 | | Sh. H F Shangpliang | ACE (Trans), MePTCL |
| 16 | | Sh. T. GIDON | EE (SLDC), Meghalaya |
| 17 | MIZORAM | Sh. H. Lalruatkima | Sr. Executive Engineer, SLDC, Mizoram |
| 18 | | Sh. Lalngaihsaka | Executive Engineer (RE), P&ED, Mizoram |
| 19 | NAGALAND | Sh. Nitovi A Wotsa | SE, DoP, Nagaland |
| 20 | | Sh. S. I. Asangba Tikhir | EE, DoP, Nagaland |
| 21 | TRIPURA | Sh. Debashish Sarkar | Chairman TCC & MD, TSECL |
| 22 | | Sh. Ranjan Debbarma | GM (Trans.), TSECL |
| 23 | | Sh. Anil Debbarma | DGM (SLDC), TSECL |
| 24 | NLDC | Sh. Surajeet Banerjee | CGM, NLDC |
| 25 | CTUIL | Sh. H S Kaushal | Sr. GM |

| SN | ORGANISATION | NAME (S/SHRI) | DESIGNATION |
|---|---|---|---|
| 26 | | Sh. Ajay Upadhyay | DGM |
| 27 | | Sh. Kaushal Suman | Manager |
| 28 | | Sh. Manish Ranjan Keshri | Manager |
| 29 | NETC | Sh. Satyajit Ganguly | MD |
| 30 | | Sh. Rajesh Gupta | Director (Projects) |
| 31 | | Sh. Ritesh Kumar | HoD (HR & Admin) |
| 32 | ENICL | Sh. Lokendra Singh Ranawat | Head, Regulatory |
| 33 | NERLDC | Sh. N. Roy | Executive Director |
| 34 | | Sh. S. C. De | Sr. GM (SO-II) |
| 35 | | Sh. S. P. Barnwal | Sr. GM (SL) |
| 36 | | Sh. Saurav Mandal | Manager |
| 37 | POWERGRID | Sh. A P Gangadharan | ED (AM) |
| 38 | POWERGRID/NERTS | Sh. U. Kataki | CGM (I/C), NERTS |
| 39 | | Sh. P. Kanungo | CGM (AM), NERTS |
| 40 | | Sh. A. Vaish | DGM (AM), NERTS |
| 41 | NTPC | Sh. Ashim Kumar Goswami | RED, ER-II |
| 42 | | Sh. S. K. Pradhan | Addl GM |
| 43 | OTPC | Sh. Arup Chandra Sarmah | Chief Commercial Officer, OTPC |
| 44 | | Sh. Narendra Gupta | Head Operation, OTPC Palatana |
| 45 | NHPC | Sh. Rajesh Sarma | Executive Director (O&M) |
| 46 | | Sh. Amitabh Jha | GM(Tech) to D(T), NHPC |
| 47 | | Sh. Suraj Dhiman | GM(O&M) |
| 48 | NEEPCO | Smt. Debjani Dey | ED (O&M) |
| 49 | | Sh. Ripunjoy Bhuyan | GM (Comml) |
| 50 | | Sh. Joypal Roy | GM (O&M) |
| 51 | NERPC | Sh. B. Lyngkhoi | Member Secretary |
| 52 | | Sh. S. M. Aimol | Director |
| 53 | | Sh. S. Mukherjee | Dy. Director |
| 54 | | Sh. A. Agrawal | Dy. Director |

**ANNEXURE - II**

## LIST OF PARTICIPANTS IN THE 23RD NERPC MEETING

1. Sh. Jishnu Dev Varma — Hon'ble Dy. Chief Minister & I/C Power, Govt. of Tripura & Chairman NERPC

2. Sh. Prestone Tynsong — Hon'ble Dy. Chief Minister & I/C Power, Govt. of Meghalaya

| SN | ORGANISATION | NAME (S/SHRI) | DESIGNATION |
|---|---|---|---|
| 3 | ARUNACHAL PRADESH | Sh. T.K. Tara | SE (Trans.) |
| 4 | | Sh. Nongkong Perme | Head of SLDC |
| 5 | ASSAM | Sh. Gautam Talukdar, IAS | Secretary (Power), Govt. of Assam |
| 6 | | Sh. Bibhu Bhuyan | MD, APGCL |
| 7 | | Sh. Mir Rafiul Amin Dewan | CGM (COM&EE), APDCL |
| 8 | | Sh. Paragjyoti Kalita | AGM (APDCL) |
| 9 | | Sh. Ashutosh Bhattacharya | DGM, SLDC, AEGCL |
| 10 | | Sh. Rajarshi Sharma | AGM, AEGCL |
| 11 | MANIPUR | Dr Shailesh Kumar Chourasia | Special Secretary (Power), Manipur |
| 12 | | Sh. Shanti Kumar Singh | CE (Power) & ED (T), MSPDCL/MSPCL |
| 13 | | Sh. S. Priyananda Singh | General Manager (Trans), Manipur |
| 14 | | Sh. N. Jasobanta Singh | General Manager (SLDC), Manipur |
| 15 | | Sh. Y. Dayanta Kumar Singh | Manager (Projects), MSPDCL |
| 16 | MEGHALAYA | Sh. Pravin Bakshi | Commissioner & Secretary, Meghalaya |
| 17 | | Sh. Sanjay Goyal | CMD, MeECL |
| 18 | | Sh. E. B. Kharmujai | Director (Trans.), MePTCL |
| 19 | | Sh. M. Shangpliang | Director (Gen.), MePGCL |
| 20 | | Sh. M. Marbaniang | CE (Gen), MePGCL |
| 21 | | Sh. J. Hynniewta | CE (Trans), MePTCL |
| 22 | | Sh. H F Shangpliang | ACE (Trans), MePTCL |
| 23 | | Sh. T. GIDON | EE (SLDC), Meghalaya |
| 24 | MIZORAM | Sh. H Lalengmawia | Commissioner & Secretary, Mizoram |

| SN | ORGANISATION | NAME (S/SHRI) | DESIGNATION |
|---|---|---|---|
| 25 | | Sh. H. Lalruatkima | Sr. Executive Engineer, SLDC, Mizoram |
| 26 | | Sh. Lalngaihsaka | Executive Engineer (RE), P&ED, Mizoram |
| 27 | NAGALAND | Sh. Nitovi A Wotsa | SE, DoP, Nagaland |
| 28 | | Sh. S. I. Asangba Tikhir | EE, DoP, Nagaland |
| 29 | TRIPURA | Sh. Brijesh Pandey | Secretary (Power), Tripura |
| 30 | | Sh. Debashish Sarkar | Chairman TCC & MD, TSECL |
| 31 | | Sh. Ranjan Debbarma | GM (Trans.), TSECL |
| 32 | | Sh. Anil Debbarma | DGM (SLDC), TSECL |
| 33 | NLDC | Sh. Surajeet Banerjee | CGM, NLDC |
| 34 | CTUIL | Sh. H S Kaushal | Sr. GM |
| 35 | | Sh. Ajay Upadhyay | DGM |
| 36 | | Sh. Kaushal Suman | Manager |
| 37 | | Sh. Manish Ranjan Keshri | Manager |
| 38 | NETC | Sh. Satyajit Ganguly | MD |
| 39 | | Sh. Rajesh Gupta | Director (Projects) |
| 40 | | Sh. Ritesh Kumar | HoD (HR & Admin) |
| 41 | ENICL | Sh. Satish Talmale | Chief Operating Officer |
| 42 | | Sh. Lokendra Singh Ranawat | Head, Regulatory |
| 43 | NERLDC | Sh. N. Roy | Executive Director |
| 44 | | Sh. S. C. De | Sr. GM (SO-II) |
| 45 | | Sh. S. P. Barnwal | Sr. GM (SL) |
| 46 | | Sh. Saurav Mandal | Manager |
| 47 | POWERGRID | Sh. R. K. Tyagi | Director (Operation) |
| 48 | | Sh. A P Gangadharan | ED (AM) |
| 49 | POWERGRID/NERTS | Sh. U. Kataki | CGM (I/C), NERTS |
| 50 | | Sh. P. Kanungo | CGM (AM), NERTS |
| 51 | | Sh. A. Vaish | DGM (AM), NERTS |
| 52 | NTPC | Sh. Ashim Kumar Goswami | RED, ER-II |
| 53 | | Sh. S. K. Pradhan | AGM |

| SN | ORGANISATION | NAME (S/SHRI) | DESIGNATION |
|---|---|---|---|
| 54 | OTPC | Sh. Sanil C. Namboodiripad | Managing Director |
| 55 | | Sh. Arup Chandra Sarmah | Chief Commercial Officer, OTPC |
| 56 | | Sh. Narendra Gupta | Head Operation, OTPC Palatana |
| 57 | NHPC | Sh. Y. K. Chaubey | CMD, NHPC |
| 58 | | Sh. Rajesh Sarma | Executive Director (O&M) |
| 59 | | Sh. Amitabh Jha | GM(Tech) to D(T), NHPC |
| 60 | | Sh. Suraj Dhiman | GM(O&M) |
| 61 | NEEPCO | Smt. Debjani Dey | ED (O&M) |
| 62 | | Sh. Ripunjoy Bhuyan | GM (Comml) |
| 63 | | Sh. Joypal Roy | GM (O&M) |
| 64 | NERPC | Sh. B. Lyngkhoi | Member Secretary |
| 65 | | Sh. S. M. Aimol | Director |
| 66 | | Sh. S. Mukherjee | Dy. Director |
| 67 | | Sh. A. Agrawal | Dy. Director |

**ANNEXURE-III**

**SPEECH BY**
**SHRI DEBASHIS SARKAR**

**CHAIRMAN, TCC**
**&**
**MANAGING DIRECTOR, TSECL, TRIPURA**

**ON THE OCCASION OF THE**

**23RD TECHNICAL COORDINATION COMMITTEE (TCC) MEETING**

**ON 18TH NOVEMBER, 2022 AT PANAJI, GOA**

*My dear Colleagues, Member Secretary NERPC, Officials of the Central and State Governments, Officials from other Central and State Power Utilities, Distinguished Guests, Special Invitees, Ladies and Gentlemen.*

It is a matter of great honour and pleasure to be here chairing this 23rd meeting of Technical Coordination Committee (TCC) on today wherein we all have come together to discuss so many important issues and take collective decisions in the common interest of the power sector of our North East region. As Chairman of TCC, it is my privilege to warmly welcome each and everyone of you in this 23rd TCC Meeting being organized under the aegis of National Hydroelectric Power Corporation Limited (NHPC) at Panaji, Goa.

We all know that the North Eastern Region of India is a landlocked Region with ninety eight percent of its border being international. The land-locked area which constitutes 8 percent of the total area of the country is connected with the main land through a chicken-neck corridor. For economic development of the North-Eastern Region, strategies have been formulated by the Government of India for removal of infrastructure bottlenecks and creating a conducive environment for overall progress in all aspects of the region including progress in the power sector.

The North Eastern Region is rich in natural resources and has almost 40% of the country's total hydro potential. Large no. of hydro generating stations are anticipated in North Eastern Region, which would be a major source of power to the North Eastern Regional constituents. The NE Region also has abundant resource of coal, oil and gas for thermal power generation. With continual improvement of infrastructure and communication facilities, the North East Region stands to become the Power House of the country by utilising its power potential.

To build up congestion-free transmission corridor and robust transmission system, adequate system strengthening would also be required in NER constituent states. Therefore, it is important that transmission development in the NER states is also taken up hand in hand in a phased manner for power evacuation adequately through intra and inter-state grid.

In addition, best practices and reforms are required to put the distribution power sector on the track to efficiency and profitability.
I do also hope that Govt. of India will extend fullest support to the NER States for establishing more reliable communication system so that telemetry availability can be achieved as per requirement.

Several projects conceptualized and forwarded by this forum have been instrumental in setting in motion a new economic endeavour aimed at removing the basic bottlenecks that stood in the way of normal development of the region and has ushered in an era of new hope in the region full of great potentialities.

I look forward with great hope and expectations towards a positive and fruitful outcome from today's discussions and deliberations. I sincerely hope that many operational and technical issues will be resolved in this meeting and the members will focus on how the power sector and power system in the NE region can be taken further in a progressive manner to match with the best infrastructure in the rest of the country.

With these words, on behalf of TCC, I once again thank NHPC for the wonderful hospitality and all of you for participating in this meeting and I sincerely look forward to some really significant and valuable deliberations today addressing in detail on the future endeavours for power sector in the North Eastern Region.

***Thank you all***

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**ANNEXURE-IV**

**WELCOME SPEECH BY SHRI Y. K. CHAUBEY**
**CHAIRMAN & MANAGING DIRECTOR, NHPC LIMITED**
**ON THE OCCASION OF THE**
**23RD NERPC MEETING**

**ON 19TH NOVEMBER, 2022 AT PANAJI, GOA**

**Hon'ble Dy. Chief Minister of Tripura & Chairman NERPC Sh. Jishnu Dev Varma Jee, Hon'ble Dy. Chief Minister, Meghalaya Sh. Prestone Tynsong Jee, Respected Member Secretary NERPC Sh B. Lyngkhoi Ji, TCC Chairman Sh. Debasish Sarkar and all esteemed participants and dignitaries**

At the outset, I welcome you all to the 23rd NERPC meeting being held in GOA. It is a matter of great privilege for NHPC to host the 23rd TCC and 23rd NERPC meeting and I hope, all the participants are having comfortable stay at the venue.

As we all know that RPCs were established for facilitating stability and smooth operation of the integrated grid and economy & efficiency in the operation of power system and to evolve consensus on all issues in the regions. In this regard, the NERPC comprising of States of Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Tripura is an excellent forum for all the constituent to find solution to mutual and common issues for the benefit of NER region.

NERPC is carrying out important functions such as Regional Level Operation analysis for improving grid performance, to facilitate inter-state and inter- regional transfer of power, to coordinate planning of maintenance of generating machines of the region, planning of outage of transmission system, operational planning studies including protection study for stable operation of grid and planning for maintaining proper voltages in the system. The NERPC deliberates on matters concerning the stability and smooth operation of the integrated grid and economy and efficiency in the operation of the power system in the region.

Total installed capacity of the power generating stations in North Eastern Region (NER) connected to the Regional Grid is 5042 MW. Central Sector Generating Stations (CSGS) of NEEPCO, OTPC, NTPC and NHPC located in various parts of

NER are the main source of power in the region and nearly contributing to 85% of total installed capacity of the region.

India is the 3rd largest power producer and consumer in the world and with expanding economy, population, urbanization and industrialization, the power demand has increased tremendously. The Government of India is transforming the country from power deficit to power surplus state, through several schemes.

Hydro Power is a critical component of Nation's electricity basket, as it allows greater degree of integration of solar and wind in the grid and the same shall provide impetus to the hydropower development. As you are aware that the solar and wind are intermittent sources of power and to ensure an efficient and stable grid we need sources to respond to the fluctuations. Hydro with its inherent capabilities to quickly ramp up and ramp down is a critical source in this regard. By a conservative estimate we will have to double our hydro capacity in the next decade to integrate solar and wind into the existing grid. Hydro power not only provides green and clean energy but also creates job opportunities during construction as well as operation & maintenance. These projects are harbinger of development in the remotest corners of the country. Hydro Power Plants also play a key role in mitigating the flood peaks in rivers.

NHPC being the premier hydro power organization in the country is committed towards development of Power Sector. Apart from Hydro Power, NHPC has also diversified into solar, wind, power trading etc. Our Subansiri Lower Hydro Power Project of 2000 MW is in advance stage of construction and first unit of the project is expected by middle of next year. Further, construction on 2880 MW Dibang Project is also planned to start shortly. In addition to above, projects aggregating to 29,000 MW in Arunachal Pradesh have been indicated by Ministry of Power for allotment to NHPC. With this, presence of NHPC in the region is expected to grow manifolds in the coming future.

Besides this, NHPC has also undertaken various CSR initiative in North East region in the field of Education, Skill development, Health services, Rural development, providing Safe drinking water facilities, Women empowerment, Environmental up-gradation, Art & Culture, Sports etc. With the development of so many power

projects in the North Eastern region, NHPC is contributing towards the development of the Region

With these words, I once again extend my heartiest greetings to all the participants and look forward to meaningful deliberation.

Thank you and JAI HIND.

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**ANNEXURE-V**

**GOVERNMENT OF TRIPURA**
**SPEECH OF**
**SHRI JISHNU DEV VARMA**
**CHAIRMAN, NER POWER COMMITTEE**
**&**
**HON'BLE DEPUTY CHIEF MINISTER**
**TRIPURA**

**ON THE OCCASION OF**
**THE 23RD NER POWER COMMITTEE (NERPC) MEETING**
**PANAJI, GOA**
**19TH NOVEMBER, 2022**

Hon'ble Minister and my colleagues from North-Eastern States, officials of the Central and State power utilities, distinguished guest, Special invitees, Ladies and Gentlemen!

2. This is the first meeting of the North Eastern Regional Power Committee after I took over as the Chairman of this committee few months back. At the very outset let me warmly welcome each and every one of you in the 23rd NERPC meeting, being organized under the aegis of National Hydroelectric Power Corporation Limited (NHPC) at Panaji, Goa. It's a matter of great privilege to see you all here in this meeting in GOA, the beautiful and happening State of the country.

3. As we all know, while addressing the nation on the occasion of 75 years of India's Independence, Sh. Narendra Modiji, The Hon'ble Prime Minister gave the clarion call of making India a developed nation by 2047. At the 26th Conference of Parties (CoP26), a five-fold strategy called 'Panchamrita' was also declared by the Hon'ble Prime Minister. Accordingly, country will meet half of its energy requirements from renewable source by 2030 and achieve net carbon zero by the year 2070.

4. It is in this context that we are today having 23rd meeting of NERPC. As the Chairman, I believe that this meeting will provoke deep thoughts, infuse new ideas and provide innovative ways in reducing existing gaps in development of NE region. This meeting will certainly help in improving and transforming the power sector of

the region to match with the best infrastructure in the country. India as a nation can be a developed country by 2047 only when the North Eastern Region also prospers in every aspect of socio-economic development.

5. On behalf of the North Eastern States, I would like to express my sincere gratitude to the Government of India for showing positive approach in extending constant and continued support to develop the power sector in the North Eastern Region, at par with other parts of the country.

6. The 'North Eastern Region Power System Improvement Project' (NERPSIP) covering six NE States and 'Comprehensive Scheme for strengthening of Transmission & Distribution in Arunachal Pradesh and Sikkim' are two major transmission infrastructure development projects in the region. I would like to call upon the implementing agency of these projects, namely Power Grid Corporation of India Limited (PGCIL), to expedite the remaining works and complete the same by the end of this year.

7. The Asian Development Bank (ADB) assisted projects are helping in upgrading and expanding power generation, transmission and distribution systems in NE Region with the State of art infrastructure. The Revamped Distribution Sector Scheme (RDSS) based on meeting pre-qualifying criteria and achieving basic minimum benchmarks, also strengthens distribution infrastructure.

8. I am sure that all the North Eastern State will make best use of the externally aided projects and RDSS scheme to improve the quality, reliability and affordability of power supply to consumers through a financially sustainable and operationally efficient power sector.

9. The whole North Eastern Region is rich in natural resources and full of economic potential. It is a region joined together by historical and cultural roots. With continuous improvement in infrastructure and connectivity, the North East Region stands to become the power house of the country by utilising its rich natural resources and surplus power potential.

10. Our endeavour should be to tap this power potential, export power through the state of art evacuation infrastructure and venture into the new frontiers of power storage to make NER as the Power Hub of India.

11. Home to perennial rivers and waterbodies, the NE region can immensely add on to the already developed hydro-power plants. It is estimated that the region has a total hydro-power potential of 58,971 MW. Large number of Hydro-power

generating stations have been planned in the Region, which would be a major source of renewable energy to the NER states. The Government of India's effort of putting in place a robust policy framework such as 'The National Resettlement and Rehabilitation of displaced families of hydel projects, will go a long way in tapping hydro power potential of NER.

12. The NE Region has abundant resource of solar power with estimated potential of 57,360 MW. This is another area of clean energy, which needs focused attention for power generation.

13. The Goal should be to tap renewable energy available in plenty, within the region to firstly, meet the increasing demand of the country and secondly, export to the neighbouring countries. Needless to say it will earn foreign exchange and reduce carbon foot prints of power sector in India.

14. Adequate system strengthening is required in the NE States in order to build congestion-free transmission corridor and robust transmission system for evacuation of this surplus power. This platform can focus on the development of transmission system in the NER for adequate power evacuation through intra and inter-state grid.

15. Power storage is an emerging area, which need to be tapped for private & public investment and industrialization of the NE Region. Power storage system can help to have stable national grid and sustainable power supply in the country.

16. Since the inception of internet and subsequent rapid digital transformation, the notion of cyber security has become important in professional and personal lives. CEA has mandated cyber security in Power Sector and issued compliance standard for protection against unauthorized access of systems, networks, and technologies. Our system should provide a risk-free and secure environment for keeping the data, network, and devices against sophisticated cyber threats. NERPC can deliberate on this critical issue and come out with project recommendations to strengthen cyber security of our power system networks.

17. One of the major concerns for the Electricity Network is reliable communication network. NERPC may work out a project to request the government of India for funding support to this sector, so that telemetry's availability can be achieved as per CERC's guidelines in the region.

18. Development of skilled manpower in the region along- with their capacity building is the need of the hour. Improved technical skills will determine our ability

to successfully execute plans with high effectiveness. I strongly believe that NE states should focus on building human capabilities equipped with latest knowledge and skills to handle 21st century power sector network in the region.

19. This meeting is also an opportunity to propose power system strengthening projects for the entire NE region to the Ministry of Power, government of India for funding under Power System Development Fund (PSDF).

20. I understand that in the 23rd Technical Co-ordination Committee (TCC) Meeting, many of the operational and technical issues have been mitigated. TCC plays the most important and critical role in laying down the way forward for power sector in the North Eastern Region.

21. NERPC is the most appropriate forum to discuss and bring about consensus on all the pertinent issues faced by the power sector in the NE region. This forum presents an action plan filled with the collective wisdom of my esteemed colleagues before the government of India for funding and implementation support. In line with the previous efforts, I sincerely hope that this particular meeting of NERPC will also resolve most of the significant issues to make power system more reliable, efficient and economically viable.

22. With these words, on behalf of NERPC, I once again extend my heartiest greeting to all the participants. I look forward for a meaningful and successful deliberation in NERPC towards the sole objective of providing 24 X 7 'Power for All' at affordable prices. Further, our combined effort can meet the common goal of making North-Eastern States a developed region at par with any part of the country.

23. Last but not the least, I would like to place my appreciation and sincere thanks to National Hydroelectric Power Corporation Limited (NHPC) for organizing this meeting and making every participant comfortable with their arrangements.

Thank you all

**Jai Hind**

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**ANNEXURE-VI**

**SPEECH OF**

**SHRI PRESTONE TYNSONG**

**HON'BLE DEPUTY CHIEF MINISTER & INCHARGE POWER**

**GOVERNMENT OF MEGHALAYA**

**ON THE OCCASION OF**

**THE 23RD NER POWER COMMITTEE (NERPC) MEETING**

**PANAJI, GOA**

**19TH NOVEMBER, 2022**

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Hon'ble Chairman NERPC and my dear Colleague Ministers from other North-Eastern States, officials of Central Government and State Governments, Officials from other Central and State Power Utilities, distinguished Guests, special invites, ladies and gentlemen.

At the outset, I convey my sincere gratitude to the Chairman, NERPC and the Hon'ble Deputy Chief Minister of Tripura, Shri. Jishnu Dev Varma for inviting me to this August 23rd North East Regional Power Committee (NERPC) meeting here in Panaji.

I bring heartiest and warmest greetings to you all on behalf of the people of Meghalaya.

I am grateful to the National Hydro-electric Power Corporation Limited (NHPC Ltd.), for their gracious hospitality in hosting this important meeting. I express my thankfulness to NERPC for their continuous efforts towards Power sector improvement for the benefit of the people of the state and the region.

I am also delighted to again be a part of this Committee and hope to be able to arrive at important decisions which will enable us to jointly achieve our common objective of smooth and robust operation of the regional power system.

While the North Eastern States face many issues, the committee has enough leverage to see that the region uses its huge potential to contribute to the growth of the country especially through the power sector.

**Power Generation in Meghalaya**

We are all aware that the region is seismically-sensitive with many geological issues causing delays to our projects which in turn increases our overall expenditure. Moreover, the State of Meghalaya receives heavy rainfall during the year, limiting the working season to about 4-5 months only. However, inspite of such difficulties and hurdles, we are pleased to state that the Ganol Small Hydro Project (3x7.5 MW) will be completed by the end of this year. The project will add another 67 MU of much needed energy to the State on its completion. In addition, the Riangdo small HEP(2x1.5 MW) is under execution with a design energy of 17.92 MU.

It is common knowledge that the southern belt of Meghalaya around Cherrapunjee (Sohra) receives the maximum rainfall in the entire world. This phenomenon therefore, allows for exploiting and harnessing more rainded hydro-electric projects which will improve the power position of the state once these are realised. In line with this, the Government of Meghalaya has endevoured to speed up the survey and investigation of Hydro Electric Projects located in this belt and it is anticipated that Myntdu Leshka Stage-II HE Project (3x70MW) will soon be ready for execution after completion of studies. The proposed Myntdu Leshka Stage-II HE Project is an RoR Scheme located in East & West Jaintia Hills District just downstream of the existing Myntdu Leshka Stage-I HE Project (3x42MW). All Major clearances have been obtained and funding has been initiated after the State Level Screening Committee (SLSC) has recommended the proposal for posting to Department of Economic Affairs from external assistance from ADB under EAP Scheme. The project cost is Rs. 2187.88 Crores with levellised tariff of Rs. 2.26/k Wh.

MePGCL also intends to harness the available hydro-electric potential in the State. The survey and investigation of Small Hydro Projects totalling 107.70MW are being taken up with funds from MNRE, while medium & large projects, which includes Mawblei HEP (2X38MW), Selim HEP (2x40MW), Nongphlait HEP (2X31MW) and Umngi HEP (2X31MW), are under survey & investigation with funds from NEC.

MePGCL is also taking up the Renovation, Modernization and Upgradation (RM&U) of its Hydel Power Stations that have surpassed their service life in order to ensure that, as far as possible, power requirement in the State is met from the existing infrastructure of renewable clean energy. In the recent past, 2(two) of the Hydel Power Stations were renovated & modernised viz. Umiam Stage-I Power Station

(4x9MW) in January, 2003 and Umaim Stage-II Power Station was also uprated from 2X9 MW to 2X10MW.

Presently, Renovation, Modernisation & Uprating of the Umiam-Umtru Stage-III HEP is in progress. This plant was commissioned way back in 1979 and has contributed enormously towards meeting the power requirement of the State of Meghalaya through years of operation and has since completed 42 years of service, during which time it has exhibited several problems causing many forced outages which resulted in loss of generation. The RM&U of the plant is now being implemented through financial assistance from JICA (Official Development Assistance) under the EAP Scheme and the project cost is Rs. 407.36 Crores. The present installed capacity of the station is 2X30MW which is likely to be increased to 2X33MW once the RM&U is completed. The project is scheduled for completion in April 2026.

The Dam Rehabilitation and improvement Project Phase-II (DRIP-II) is one of the flagship projects of the Ministry of Water Resources (MoWR), River Development (RD) and Ganga Rejuvenation (GR), Govt. of India, and the World Bank, with an objective to improve safety and operational performance of selected dams in the country. Under DRIP-II, 4(four) dams in Meghalaya have been approved at an amount of Rs. 441 Cr. The Loan Agreement was signed on 4th August, 2021 between GoI and World Bank and the Loan Agreement has been made effective from 12th October, 2021. The project is scheduled to be completed by March, 2027.

Meghalaya is 100% Hydro based with generation of 80-90% of installed capacity during monsoon and 10% in the lean season. Therefore, requirement of additional source of energy in lean season (winter) is necessary. In view of this, the Government of Meghalaya has envisaged development of Solar Power Parks which is another source of renewable energy. At Present, development of Solar Parks of 10 MW each is being taken up by the State at Suchen and Thamar, located in East & West Jaintia Hills District, respectively, totalling to 20MW. We are in active consultation with Solar Energy Corporation of India (SECI) and other Government PSUs for implementation of the same.

**TRANSMISSION**

Early completion of Transmission projects and ROW concerns is a shared concern in NER where the state has its own challenges, local laws and intrigues. In the

ongoing NERPSIP projects, we have resolved many unforeseen issues and expect that the implementing Agency, Power Grid commissions all elements within this year and hope that power flow will commence before the coming peak winter demand season with the consideration that we do not face issues of load shedding due to the limitation of transfer of power from Misa- Khandong-Kopili corridor.
We also need to ensure early implementation of Downstream Lines and Substations for evacuation of power from the ISTS project in Nongalbibra-New Shillong line, the 132 KV Nongalbibra to Nongalbibra (ISTS) and the 132 kV New Shillong to Sohra line.

In the NERPSIP's 2nd tranche, we expect many projects to be covered which were left out of the 1st tranche.

Transmission being a critical sector in the Power system, Meghalaya hopes to strengthen of old lines especially which have crossed their useful life of 35 years. LILO of 400kV line at Mynkre, Sohra and New Shillong along with 400/220/132kV Substations has been envisaged. Further, upgradation and modernization of EHV Substations with construction and enhancement of associated 33KV Switchyards are being examined.

**Intra state transmission expansion**

Meghalaya and NER have extreme weather conditions and Transmission lines get disrupted during monsoons, causing difficult and time-consuming restoration in the hilly rugged terrain. It is of important to ensure ring main connectivity of Transmission lines. Alternate evacuation of power from Leshka Stage-I Power Station (126 MW) which is dependent on only one 132KV feeder to Khliehrait. An alternate link from this power station and substation at Amlarem near Dawki will go a long way in ensuring continuous power evacuation during high generation periods and reduce water spillage. Keeping in mind the importance of this Line, I urge upon the forum to consider the same on priority.
Expansion if Intra state transmission network and connectivity of missing 132KV links is necessary for system stability for which new Grid Substations and lines are to be created. Ensuring ring main connectivity at 132KV is crucial for the intra-state transmission system. There is also need for meeting future power requirements of expanding urban areas such as New Shillong Township.

Transmission infra build up in the Indo-Bangla Border in Meghalaya is urgently required for power supply reliability as many 33KV substations have been constructed under various schemes which need to be connected to nearby Grid Substations.

**Funding for improvement 33KV Switchyards for Transmission Substations**

A concern for the State Transmission Utility's 132/33 KV grid substations in Meghalaya is the frequent tripping of 33 KV Lines emanating from these stations especially during stormy weather conditions. It is imperative for the utility to improve the 33KV Switchyards at the grid substations. While funding is available for 33KV system improvements for the DISCOMS, funding for the 33 KV Switchyards at the Grid Substations is not available as the facilities are under the operational control of the Transmission utility. It is important that the forum looks into this aspect of funding the transmission utility from PSDF or other sources for improving the 33 KV switching facilities as this has a major impact on the transmission system and grid stability. Our immediate requirement is to construct new 33 KV switchyards in at least 5 (five) Grid Substations within the next one year or so.

**Meghalaya SLDC**

Meghalaya SLDC started functioning since 2003 under IE Act 2003 and is the apex body to ensure integrated operation of the power system of the state. In Grid Operation it has to abide by RLDC instructions, MSERC Regulations and State Grid Code, CERC Regulations and IEGC and CEA Norms and Regulations.

The functional independence of SLDC was notified by the Government of Meghalaya on 18.06.2013 wherein it was mandated that (i) the SLDC shall work as a strategic business unit (SBU) under the state transmission utility (STU), MePTCL. MSERC desires SLDC should be functionally independent as per IE Act 2003 and the government is considering the same.

As of now SLDC is proposing four new projects which are to be funded under PSDF- (i) Upgradation of SCADA/EMS System (ii) Establishment of VSAT communication in remote location in Meghalaya (iii) Deployment of Remote Terminal Units (RTUs) in select stations of Meghalaya (iv) Expansion of Automatic Demand Management

System. The DPR for all the four projects have been submitted to NERPC. I earnestly urge the forum to consider it at the earliest.

In the manner of Cyber security/Information Security, Meghalaya SLDC has been certified as ISO/IEC 270001:2013 and has been identified as Critical Information Instructure by National Critical Information Instructure Protection Centre (NCIIPC), Govt. of India.

SLDC is currently implementing the SAMAST Project funded under PSDF. The work is in progress and is expected to be completed by April 2023.We thank the Government of India for sanctioning SAMAST for Meghalaya. As value addition to the project and to reduce the Power purchase cost for the state, Meghalaya is planning to award Energy Portfolio Management software which will complement the SAMAST project.

**DISTRIBUTION**

Meghalaya's distribution sector being the most critical segment of the entire power supply value chain received a boost from the Govt. of India's assistance through various system improvement schemes and electrification schemes with the aim of providing 24x7 Power for All. The sub-transmission system shall be upgraded and strengthened for which Meghalaya is presently implementing several distribution projects.

**Meghalaya Power Distribution Sector Improvement Project**

Under financial assistance from ADB, the project is expected to strengthen the State's rural distribution network, reduce AT&C losses, bridge the gap between ACS and ARR and adopt customer-centric initiatives for ultimate customer satisfaction, upgradation of the utility's existing infrastructure, to improve the consumer metering, billing and collection efficiency, improve the power quality and reduce the outages in the State of Meghalaya.

The RDSS (Revamped Distribution Sector Scheme) approved by the Cabinet (Meghalaya), is envisaged to bring new challenges and opportunities to help improve the performance of the DISCOM.

**Smart Metering (ADB)**

MePDCL is presently implementing smart meter project being funded by ADB to replace existing 180000 LT Consumer meters with smart meters. Around 16000 will

be on prepaid mode. The remaining 4,60,000 meters will be covered under smart prepaid metering project to be implemented under RDSS.

Under Integrated Power Development Scheme (IPDS), two Gas Insulated Substation (GIS) have been constructed at Shillong and Jowai Towns.

With the aim of providing 24x7 power for the entire state other distribution projects being implemented includes DDUGJY, SAUBHAGYA, NERPSIP, PM KUSUM, Renewable Energy and Storage, Grid Connected Rooftop Solar Programme and Off-Grid Solar Power Plants in RESCO model under MNRE.

In conclusion, I wish to state that Meghalaya is continuously making efforts to improve the power system at all levels such as increase of Generation Capacity and adding alternate sources of Power, and improvement for transmission availability and capacity, limiting of transmission constraints to the extent possible and serving our consumers at the Distribution level.

I would also like to mention that, like all state power utilities, Meghalaya is constrained by its acute financial situation, I do hope that this forum will highlight these financial issues and see that funding for power sector is optimally made to enable the states to contribute to a robust regional power system.

Another aspect of power operations is the constant change in technology, which I request that the forum makes efforts to ensure a robust capacity building mechanism to upgrade our existing Human Resources through Training and exposure so as to meet the technological advancement and to ensure innovation and research and development in the sector for the interests of the people at large.

**Jai Hind**

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**ANNEXURE-VII**

**KEYNOTE ADDRESS OF SH. B LYNGKHOI, IES (CPES)**
**MEMBER SECRETARY, NERPC**
**ON THE OCCASION OF THE 23RDNERPC MEETING**
**19TH NOVEMBER, 2022 AT PANAJI GOA**

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Chairman NERPC & Hon'ble Dy. Chief Minister, Govt. of Tripura, Shri Dev Varma Ji, Hon'ble Dy. Chief Minister, Govt. of Meghalaya, Shri Tynsong Ji, TCC Chairman & MD, TSECL Shri Debashis Sarkar Ji,
Principal Secretaries, Commissioners & Secretary Power of NER States, CMDs, MDs of States & Central Utilities, and all the Senior officers from NE States, Central Utilities, Special Invitees, ladies and gentlemen.

1. I wish to convey my gratitude to all the esteemed participants to this 23rd North East Regional Power Committee (NERPC) meeting here in the city of Panaji.

2. Today we assembled here in this beautiful state of Goa which is known as the pearl of the east and I hope you have a pleasant stay. I am pleased to inform the house that all the delegates from all State & Central Utilities are present today and this shows our sincerity towards improvement of power sector in our region and I hope many important decisions will be taken today which will benefit N.E. Region.

3. It gives me great pleasure in appreciating the efforts taken by NHPC in hosting the 23rdTCC & NERPC Meetings. I, on behalf of NERPC would like to convey our heartfelt gratitude to Shri YK Chaubey ji, CMD NHPC and especially his team for helping NERPC in convening the meeting in Goa. It has given an opportunity for the NER Constituents to visit and experience the place and culture of Goa. The way you have taken care of us and making comfortable arrangement is highly appreciated by all of us.

4. Ministry of Power, Government of India has established NERPC under the Electricity Act 2003, to ensure optimal performance of the grid. We have been further entrusted with the responsibilities of transmission planning, communication planning and to evolve consensus on all issues relating to economy and efficiency in the operation of power system in the region. To achieve these objectives, NERPC Secretariat persistently work through its various sub-committees (operation, protection, commercial, NeTEST) and put-forth the matters of highest significance to the august forum of TCC/NERPC. Yesterday we had detailed deliberations on all the agendas and I'm pleased to inform that most of the agendas were resolved in Technical Meeting yesterday and today only those agendas which were referred by TCC are put up to deliberate and resolve.

5. With the post-pandemic economic recovery, the NER has observed the rise in energy demand in line with the rest of the country. Since energy consumption is one of the key metrics to identify economic potential, it is yet another testimony to the fact that the region holds great opportunities for industries, businesses and investments.

6. The region also boosts vast hydro potential which can be used to cater the projected energy needs of the nation. Thus, this green energy resource can not only be harnessed for the benefit of the region but also for the country as a whole. It gives me immense joy to share that this august forum has always been a facilitator to this cause.

7. I would also like to inform the forum that since 22nd NERPC meeting held on 28th March, 22, the region has seen:

- Implementation of four new Special Protection scheme in the region including SPS at RHEP to ensure smooth evacuation of Pare & RHEP generation.
- Automatic Weather Station (AWS) installation works are under progress in NER states. In Tripura, the AWS installation work has been completed.
- DPR of Guwahati Islanding Scheme has been prepared and the same shall be put up for approval of the forum.

8. Further, the following MoP/CERC's regulations has also been made effective since last NERPC meeting:

- Ministry of Power's Late payment surcharge (LPS) has been made effective which is likely to bring commercial discipline amongst the entities.
- General Network Access (GNA) regulation has been made effective from 15.10.2022. which aims to delink Schedule Access and Transmission Access. This shall significantly improve the transmission planning.

9. Today we are gathered to discuss various key aspects of NER power system ranging from Transmission system strengthening like HTLS reconductoring for highly loaded lines, reactor/capacitor installation for better VAR management to exploring additional evacuation path(s) from various Generating Station to strengthening of fiber-optic network in NER. The forum shall also give approval for various upgradation and modernization projects related to Protection System, conversion of conventional Station to SAS based Station, conversion of sub-station from AIS to GIS, etc. for safe and reliable grid operation of NER. Further, the forum shall note the status of spare equipment/materials in Transmission line, EHV S/s and DMS packages under NERPSIP as well as the procurement of 01 No each 220kV and 132kV Mobile GIS bays along with control & protection system as decided in 21st NERPC meeting.

- Further Automatic Demand Management System is operational in all 7 NER States and has helped multiple times in the past months during low frequency periods and overdrawal from the grid.

- SAMAST is under advance execution stage for Assam, Meghalaya and is slated to be commissioned by December, 2022. Once this scheme is implemented the State would know the exact drawal from each node and this will help them to address the weekly, monthly deviation. Further, it will minimize the manual intervention in processing meter data and generating state energy accounts, etc. For remaining 5 states of NER survey has been completed and work has been commenced. However, time-line needs to be extended as work has been significantly impacted due to COVID restrictions in 2021 and inclement weather in most parts of NER in 2022.

- However, I have one observation that one State is yet to kick start the project and I would urge them to grab this golden opportunity that Govt. of India has

given to us. I also urged upon the States to give your fund requisition at the earliest so that the project can be completed on time.

- Before I conclude I just want to remind once again that Govt. of India has given us this platform to raise all issues pertaining to power sector and hence feel free and always participate so that NER can also be at par with other Regions of the country.

10. Finally on behalf of NERPC, I once again extend my heartiest greetings to all the participants and look forward to meaningful deliberation. I once again thank NHPC for hosting this meeting in a very Grand way and wish the plenary a grand success.

**Jai Hind**!

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Sterlite Power

# BESPOKE SOLUTIONS & CUTTING-EDGE PRODUCTS TO ENHANCE POWER TRANSMISSION CAPABILITIES

## 132 KV D/C NEEPCO PARE LINE

Contents

# Reconductoring Proposal

## 1. Offer letter:

SPTL/FY 21-22/PARE/003

Date: 28/06/2022

To,

Tseten Sange

Dy. General Manager (E/M)

Pare HEP, NEEPCO Ltd

Sub: - Budgetary Proposal for Reconductoring of 132 KV D/C NEEPCO Pare Line

Dear Sir,

We take this opportunity to share with you that Sterlite Power Transmission Ltd is a leading global solution provider of Transmission projects, OPGW, Power cables and Power Transmission conductors and major player in HTLS conductors.

We hereby submit our offer for 132 KV D/C NEEPCO Pare Line: Reconductoring with ACCC along with necessary hardware, insulators and accessories.

Yours Sincerely

For Sterlite Power Transmission Limited.


Jayavant Bhamare

AVP- Sales & Business Development

## 2. Annexure A Commercial Proposal

### A. Scope:

I. Destringing and Restringing of 132 KV D/C NEEPCO Pare Line 2.25 Ckm Portion: Reconductoring with ACCC Casablanca conductor along with necessary hardware, insulators and accessories.
II. Changing relay setting parameter using updated line configuration relay setting calculation to be done accordingly and implemented.
III. Straightening of Ranganadi -Nirjuli line by changing cross arm orientation at Tower No.10 of LILO line of Pare.

The scope is limited to aforesaid only and does not include any scope towards ROW, transmission towers, substation works, bay works or any commissioning works related to any transmission line or substation.

### B. Major Commercial Terms

| # | Terms | Details |
|---|---|---|
| 1 | Payment Terms | **Supply**<br>• 10% Advance<br>• 85% on Dispatch of Materials<br>• 5% on commissioning<br>**Services**<br>• 10% Advance<br>• 85% against RA bills<br>• 5% on commissioning<br>All payments to be made within 30 days of receipt of the invoice. Any delay in payment beyond 30 days shall lead to late payment surcharge @ rate of 14% per annum for the outstanding amount till the date of receipt of full payment. |
| 2 | Warranty Period | 12 months from completion of Reconductoring works. |
| 3 | ROW & Way Leave | Shall be responsibility of the Utility.<br>All approval, permissions, compensations and other cost related to ROW & Way leave shall be in scope of the Utility.<br>Utility shall provide free and hindrance free access to site for carrying out the reconductoring works. |
| 4 | Change in Law | Any increase in cost or taxes due to Change in Law shall be compensated to SPTL at actuals. |

| | | |
|---|---|---|
| 5 | Offer Validity | 45 days from the date of the offer. |
| 6 | Shutdown | Shutdown required for Reconductoring shall be provided by the Utility. |
| 7 | Delays not attributable to Contractor | Suitable time extension and reimbursement of demonstrable cost shall be given to Contractor for suspension of work or delays not attributable to contractor. |
| 8 | Additional / Extra Item | In case of any additional items beyond the BOQ given in Annexure-II below, the same shall be executed by the Contractor as per mutually agreed rates. |
| 9 | Limitation of Liability | The contractor shall not be liable to client for any indirect or consequential loss or damage and the aggregate liability of the Contractor under the contract shall not exceed the contract price. |
| 10 | Governing Law | The contract shall in all respects be construed and interpreted in accordance with the laws in force in India. |
| 11 | Completion Period | 3 months from the date of release of advance |
| 14 | Cancellation/Termination | In case of cancellation or termination of Contract for any reasons other than termination due to default of the Contractor, the following shall be paid by the Client :-<br><br>a) For Work completed till the date of termination.<br>b) Cost incurred by Contractor for demobilization including any losses to Contractor resulting due to order cancellation will be to CLIENT's account including any claims raised by suppliers, service providers, equipment providers & labour related cost.<br>Any unpaid claims raised by the Contractor under the Contract. |

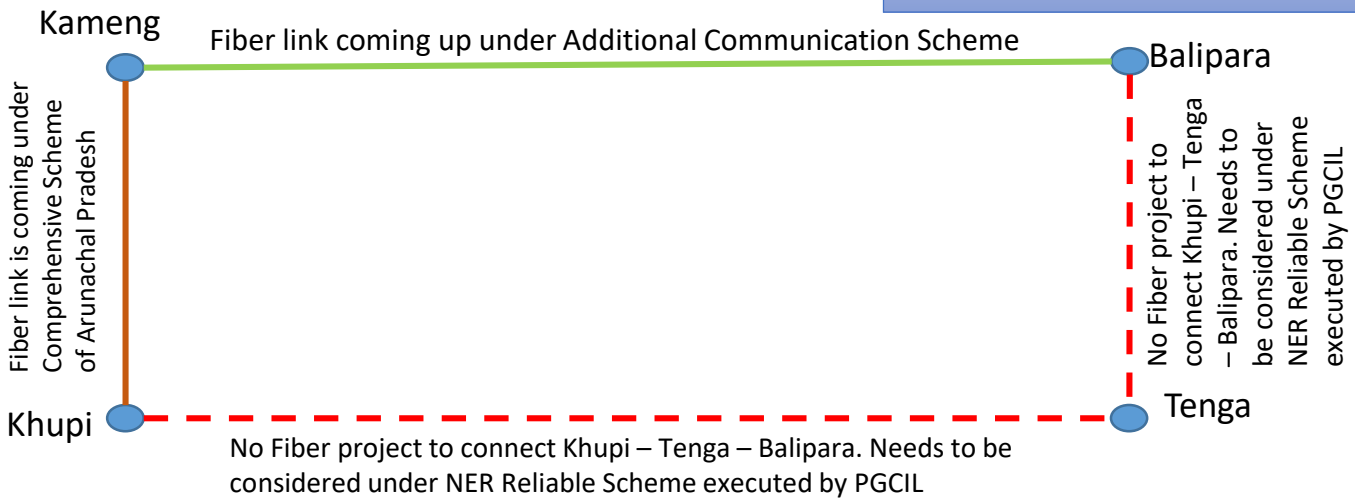
## 3. Annexure B Bill of Quantities

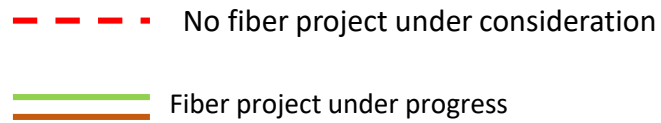
| Project : - 132 kV D/C Neepco Line | | | | | |
|---|---|---|---|---|---|
| **Sl No.** | **Supply BOQ** | **Qty** | **Unit** | **Unit Rate (INR)** | **Total Unit Rate (INR)** |
| 1 | Carbon Fibre Composite Core type HTLS Conductor | 7.1 | KM | 1763879 | 12479271 |
| 2 | Single Suspension Pilot fitting for Carbon Fibre Composite Core type HTLS Conductor | 14.0 | Nos | 14413 | 201781 |
| 3 | Vibration Damper suitable for Carbon Fibre Composite Core type HTLS Conductor | 114.0 | Nos | 4409 | 502663 |
| 4 | 120KN Single Tension Fitting for Carbon Fibre Composite Core type HTLS Conductor | 111.0 | Nos | 73025 | 8105765 |
| 5 | Terminal Pad without hole | 27.0 | Nos | 7062 | 190683 |
| 6 | Relay Setting & Control System Integration | 1 | Set | 2519108 | 2519108 |
| 7 | T Connectors | 9 | Nos. | 10580 | 95222 |
| 8 | ACSR Panther Dead-end | 6 | Nos. | 39676 | 238056 |
| 9 | ACSR Panther MSJ | 6 | Nos. | 31741 | 190445 |
| 10 | ACSR Panther Repair sleave | 4 | Nos. | 26451 | 105803 |
| | **TOTAL SUPPLY (Exc. GST)** | | | | **24628796** |
| **Sl No.** | **Service BOQ** | **Qty** | **Unit** | **Unit Rate (INR)** | **TotalUnit Rate (INR)** |
| 1 | Destrining & Restringing | 2.246 | Per Ckt KM | 5038216 | 11315833 |
| 2 | Dismantling of ACSR conductor | 0.052 | Per Ckt KM | 251911 | 13099 |
| 3 | Stringing of ACSR Conductor | 0.293 | Per Ckt KM | 629777 | 184525 |
| 4 | Dismantling of crossarm & installation | 1 | Per Ckt KM | 377866 | 377866 |
| | **Total Services ( Exc. GST )** | | | | 11891324 |
| | **Total (Supply & Services) Exc. GST** | | | | **36520119** |
| **Rupees Three Crore Sixty Five Lacs Twenty Thousand One Hundred Nineteen Only** | | | | | |

**4. Notes:**

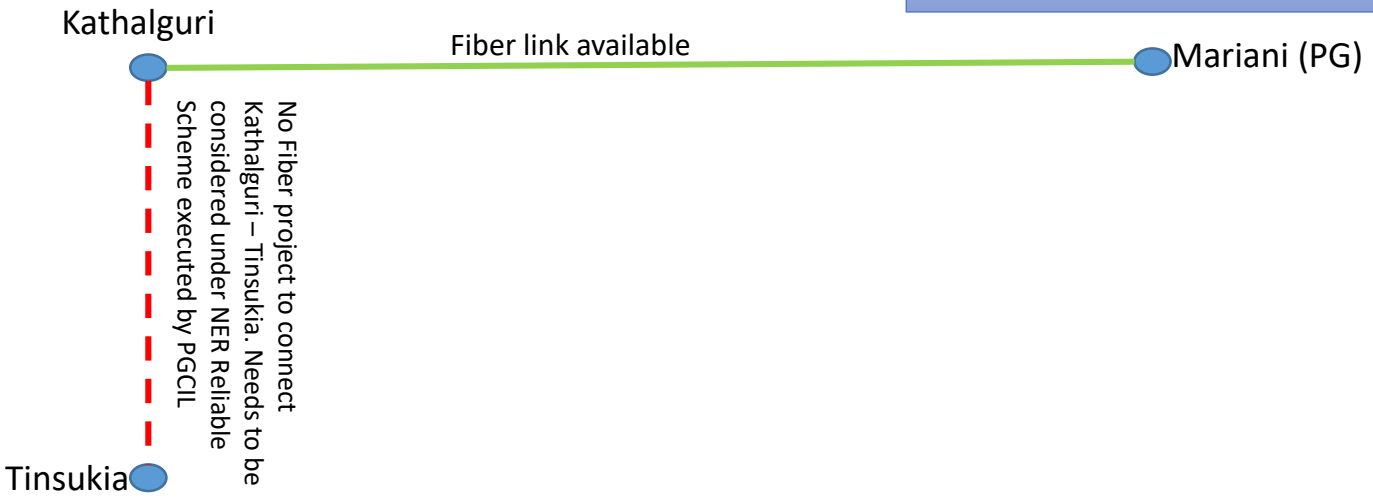
a) Our offer is excluding GST @ 18%. Any change in rates of taxes, duties, levies shall be reimbursed at actuals by the Client.
b) Our offers exclude any cost towards ROW and Tower Strengthening.
c) The above Offer is fixed except for Conductor which is being offered on variable basis and price variation shall be as per weight to weight formula, considering LME Aluminium of USD 3664/MT and USD/INR exchange rate of INR 76.22 /USD. The conductor shall be payable based on actual LME and Exchange rate as on date of metal booking after award of the contract.
d) Detailed terms and conditions shall be mutually agreed at the time of signing of the contract.

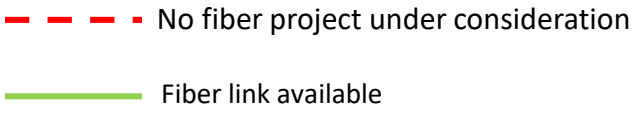
## Fiber Connectivity of Kameng




## Fiber Connectivity of Kathalguri



**CHIEF MINISTER**
**NAGALAND**
**KOHIMA**

13th June, 2022

**D.O. NO. CMN/30/POWER/2022**

**Sub: Resolution adopted by the Power Ministers of North Eastern Region during the 22nd NERPC meeting held at Guwahati on 28th March 2022.**

**Dear Shri R.K. Singh ji,**

On behalf of NER, I would like to express our deep gratitude to Government of India for unwavering support in the development of the region. In light of India's push for Renewable, we hope that further support from Government will enable the region to contribute in the journey towards carbon neutrality.

North Eastern Regional Power Committee (NERPC), Ministry of Power, Government of India held its 22nd Meeting in Guwahati on 28th March 2022. The Power Ministers of NER along with the members of NERPC took a resolution to urge the Government of India to consider following issue pertaining to Funding of Small Hydro Projects in the NER for development of the region.

**IMPORTANCE OF DEVELOPING SMALL HYDRO PROJECTS IN THE NER STATES UNDER MNRE, GOI:SHP SCHEME**

The NE (North Eastern) States of the country is endowed with vast hydropower potentials to provide clean renewable energy without affecting much of the river ecosystems and the environments. The HEPs (Hydro Electric Projects) in this region require considerably smaller space and have minimal impact of displacement and rehabilitation as it involves less land area due to favourable topography.

The development of HEPs is not only important in the North Eastern states to enhance renewable capacity addition in line with the Govt of India's road map to achieve 175 GW, but also it will be a move towards fulfilment of Renewable Purchase Obligation (RPO).

The development of HEPs is capital intensive and hence, it becomes difficult for the States to develop such projects independently due to resource constraint and are left with the alternative of importing power from outside incurring huge financial burden on the State resources.

**CHIEF MINISTER**
**NAGALAND**
**KOHIMA**

Earlier till the 12th 5 Year Plan (2007-2012), the MNRE (Ministry of New & Renewable Energy) was supporting the development of SHPs (Small Hydro Projects) to the NE States through SHP schemes @ INR 7.5 Crore/MW, which indeed has helped many projects come into picture in the North East States. However, with the discontinuance of the said SHP Scheme by the MNRE from April 2017 onwards, the most important and viable revenue generating sector of the NE States is left alone.

It is also imperative to note that the North East states being resource crunch states needs support of the MNRE, GOI to develop revenue generating SHPs as many rivers are still yet to be exploited of their potential and harnessing renewable energy from hydro potential sites is a sustainable goal which needs to be achieved.
The MNRE, GOI may therefore reconsider the implementation of SHP scheme to support the potential and viable hydropower projects.

***With this background in mind and considering the poor financial conditions of NER States, we request your good self to intervene into the matter personally to revive the Scheme or grant 100% funding from Govt. of India, as a special consideration for the NER.***

With regards,

Yours sincerely,

13/6

**( NEIPHIU RIO )**
**Chairman,**
**North Eastern Regional Power Committee**

**Shri. R.K. Singh,**
**Union Minister of Power & MNRE,**
**Government of India,**
**Shram Shakti Bhawan,**
**Rafi Marg, New Delhi – 110 001**

Annexure D.04

दूरभाष (का) 26732301
TELEPHONE (O) 26732301
सदस्य विद्युत प्रणाली
तथा पदेन अपर सचिव भारत सरकार
केन्द्रीय विद्युत प्राधिकरण
सेवा भवन, रामाकृष्णा पुरम्

सत्यमेव जयते

गौतम रॉय
Goutam Roy

MEMBER POWER SYSTEM
& EX-OFFICIO ADDL. SECRETARY TO THE GOVERNMENT OF INDIA
CENTRAL ELECTRICITY AUTHORITY
SEWA BHAWAN, R.K. PURAM

**DO.No.CEA-PS-13-13(15)/1/2022-PSPM Divn** नई दिल्ली - 110066 31.08.2022
NEW DELHI – 110066

Dear Shri Tayengji ,

You may be aware that Hon'ble Union Minister of Power and New & Renewable Energy had reviewed the progress of ongoing Schemes of the Ministry of Power on 07.02.2022, wherein he directed CEA to ensure adequate capacity building of staff of NER states to satisfactorily operate and maintain the assets being created by PGCIL under present schemes of North Eastern Region Power System Improvement Project (NERPSIP) and Comprehensive Scheme for Strengthening of transmission and distribution system in Arunachal Pradesh and Sikkim.

In this regard, several rounds of review meetings held between CEA, PGCIL & NER States wherein PGCIL expressed serious concerns that States are not taking handover of these assets (lines & substations) which have already been commissioned. Therefore, PGCIL is maintaining these assets till handing over taken by the States, this involves additional expenditures. In this respect, most of the NER states informed CEA that they may not be in the position to take over the assets constructed by PGCIL under above Schemes for the reason that they are not having sufficient manpower to operate & maintain the above assets, as all their existing staffs are already utilized. Therefore, the only option left with them is to request for financial assistance from the Government of India for appointment of the required manpower on regular appointment basis or from outsourcing. The States also requested for hand-holding from Govt. of India for initial periods of at least 3 years.

The above mentioned points were discussed during above review meetings held between CEA, PGCIL & NER States and based on the deliberation/inputs from the NER States, a **'Report on the Capacity Building of NER states regarding NERPSIP and Comprehensive Scheme'** was prepared by CEA and was submitted to Ministry of Power. In this regard, MoP has requested CEA to advise the states to recruit additional required manpower to man the new assets created under NERPSIP & Comprehensive Schemes, based on their manpower norms and considering specific geographical conditions of these States. Further, followings decisions of MoP are reproduced & conveyed for compliance:

a. States may be impressed upon to take over the completed assets under NERPSIP and Comprehensive Scheme from POWERGID for their O&M.

b. States may be requested to carry out recruitment of additional man-power for taking over the completed assets and expenditure against such man-power may be recovered through filing tariff petition with the respective Electricity Regulatory Commissions.

c. POWERGRID can impart training to the man-power of the States for O&M of the completed/handed over assets under these schemes.

In light of above, I would request to kindly instruct the concerned officials to take immediate steps for the compliance at the earliest.

Yours Sincerely,

(Goutam Roy) 31/8/12

**Shri K.Tayeng**
Commissioner (Power) , Govt. of Arunachal Pradesh ,
Itanagar – 791 111
Phone No:- 09436040026
Email:- secypower.arn@gmail.com

**Copy to:** (1) **Shri Raghuraj Madhav Rajendran**
Joint Secretary (Transmission)
Ministry of Power
Shram Shakati Bhawan,
Rafi Marg, New Delhi
Email: raghurajmr@ias.nic.in

(2) Shri K. Shreekant, CMD
POWERGRID, Saudamini, Plot No.2, Sector 29, Near IFFCO Chowk,
Gurgaon (Haryana) - 122001, INDIA
Email: cmd@powergrid.in

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MEMBER POWER SYSTEM
& EX-OFFICIO ADDL. SECRETARY TO THE GOVERNMENT OF INDIA
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SEWA BHAWAN, R.K. PURAM

**DO.No.CEA-PS-13-13(15)/1/2022-PSPM Divn** नई दिल्ली - 110066 31.08.2022
NEW DELHI – 110066

Dear Shri Niraj Verma ji,

You may be aware that Hon'ble Union Minister of Power and New & Renewable Energy had reviewed the progress of ongoing Schemes of the Ministry of Power on 07.02.2022, wherein he directed CEA to ensure adequate capacity building of staff of NER states to satisfactorily operate and maintain the assets being created by PGCIL under present schemes of North Eastern Region Power System Improvement Project (NERPSIP) and Comprehensive Scheme for Strengthening of transmission and distribution system in Arunachal Pradesh and Sikkim.

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Yours Sincerely,

**(Goutam Roy)** 21/8/22

**Shri Niraj Verma**
Principal Secretary (Power), Govt. of Assam,
Dispur, Guwahati - 781 006
Phone No:- 0361-2237260
Email:- prsecypowerassam@gmail.com; niraj.verma@nic.in

**Copy to:** (1) **Shri Raghuraj Madhav Rajendran**
Joint Secretary (Transmission)
Ministry of Power
Shram Shakati Bhawan,
Rafi Marg, New Delhi
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(2) Shri K. Shreekant, CMD
POWERGRID, Saudamini, Plot No.2, Sector 29, Near IFFCO Chowk,
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सत्यमेव जयते

गौतम रॉय
Goutam Roy

MEMBER POWER SYSTEM
& EX-OFFICIO ADDL. SECRETARY TO THE GOVERNMENT OF INDIA
CENTRAL ELECTRICITY AUTHORITY
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**DO.No.CEA-PS-13-13(15)/1/2022-PSPM Divn** नई दिल्ली - 110066 31.08.2022
NEW DELHI – 110066

Dear Shri Rajesh Agrawalji,

You may be aware that Hon'ble Union Minister of Power and New & Renewable Energy had reviewed the progress of ongoing Schemes of the Ministry of Power on 07.02.2022, wherein he directed CEA to ensure adequate capacity building of staff of NER states to satisfactorily operate and maintain the assets being created by PGCIL under present schemes of North Eastern Region Power System Improvement Project (NERPSIP) and Comprehensive Scheme for Strengthening of transmission and distribution system in Arunachal Pradesh and Sikkim.

In this regard, several rounds of review meetings held between CEA, PGCIL & NER States wherein PGCIL expressed serious concerns that States are not taking handover of these assets (lines & substations) which have already been commissioned. Therefore, PGCIL is maintaining these assets till handing over taken by the States, this involves additional expenditures. In this respect, most of the NER states informed CEA that they may not be in the position to take over the assets constructed by PGCIL under above Schemes for the reason that they are not having sufficient manpower to operate & maintain the above assets, as all their existing staffs are already utilized. Therefore, the only option left with them is to request for financial assistance from the Government of India for appointment of the required manpower on regular appointment basis or from outsourcing. The States also requested for hand-holding from Govt. of India for initial periods of at least 3 years.

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c. POWERGRID can impart training to the man-power of the States for O&M of the completed/handed over assets under these schemes.

In light of above, I would request to kindly instruct the concerned officials to take immediate steps for the compliance at the earliest.

Yours Sincerely,

(Goutam Roy) 31/8/22

**Shri Rajesh Agrawal**
Principal Secretary (Power),
Govt. of Manipur,
Imphal – 795001
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सत्यमेव जयते

गौतम रॉय
Goutam Roy

MEMBER POWER SYSTEM
& EX-OFFICIO ADDL. SECRETARY TO THE GOVERNMENT OF INDIA
CENTRAL ELECTRICITY AUTHORITY
SEWA BHAWAN, R.K. PURAM

**DO.No.CEA-PS-13-13(15)/1/2022-PSPM Divn** नई दिल्ली - 110066 31.08.2022
NEW DELHI – 110066

Dear Shri Shakil Ahamedji,

You may be aware that Hon'ble Union Minister of Power and New & Renewable Energy had reviewed the progress of ongoing Schemes of the Ministry of Power on 07.02.2022, wherein he directed CEA to ensure adequate capacity building of staff of NER states to satisfactorily operate and maintain the assets being created by PGCIL under present schemes of North Eastern Region Power System Improvement Project (NERPSIP) and Comprehensive Scheme for Strengthening of transmission and distribution system in Arunachal Pradesh and Sikkim.

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In light of above, I would request to kindly instruct the concerned officials to take immediate steps for the compliance at the earliest.

Yours Sincerely,

(Goutam Roy) 31/8/12

**Dr. Shakil P. Ahammed**
Principal Secretary (Power),
Govt. of Meghalaya, Shillong – 793001
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**DO.No.CEA-PS-13-13(15)/1/2022-PSPM Divn** नई दिल्ली - 110066 31.08.2022
NEW DELHI – 110066

Dear Shri Lalengmawiaji,

You may be aware that Hon'ble Union Minister of Power and New & Renewable Energy had reviewed the progress of ongoing Schemes of the Ministry of Power on 07.02.2022, wherein he directed CEA to ensure adequate capacity building of staff of NER states to satisfactorily operate and maintain the assets being created by PGCIL under present schemes of North Eastern Region Power System Improvement Project (NERPSIP) and Comprehensive Scheme for Strengthening of transmission and distribution system in Arunachal Pradesh and Sikkim.

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Yours Sincerely,

(Goutam Roy) 31/8/11

**Shri. H. Lalengmawia**
Commisioner & Secretary (Power), Govt. of Mizoram ,
Aizawl – 796001
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**DO.No.CEA-PS-13-13(15)/1/2022-PSPM Divn** नई दिल्ली - 110066 31.08.2022
NEW DELHI – 110066

Dear Shri Vijoji,

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(Goutam Roy) 31/8/11

**Shri K.D. Vizo**
Principal Secretary (Power), Govt. of Nagaland,
Kohima – 797001
Phone No:- 0370-2270110
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(2) Shri K. Shreekant, CMD
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**DO.No.CEA-PS-13-13(15)/1/2022-PSPM Divn** नई दिल्ली - 110066 31.08.2022
NEW DELHI – 110066

Dear Shri Pandeyji,

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**(Goutam Roy)** 31/8/11

**Shri. Brijesh Pandey**
Secretary (Power), Govt. of Tripura,
Agartala – 799001
Phone No:- 0381-2413357
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