



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  
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No. NERPC/OP/Committee/2019/ 6242-6315

Date: January 14, 2019

To,

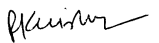
1. Hon'ble Chief Minister & In-charge of Power, Govt. of Nagaland, Kohima - 797 001
2. Hon'ble Dy. Chief Minister & In-charge of Power, Govt. of Tripura, Agartala - 799 001
3. Hon'ble Minister of Power, Govt. of Arunachal Pradesh, Itanagar - 791 111
4. Hon'ble Minister of Power, Govt. of Assam, Guwahati - 781 006
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 (Power), Govt. of Arunachal Pradesh, Itanagar - 791 111
9. Addl. Chief Secretary (Power), Govt. of Assam, Dispur, Guwahati - 781 006
10. Commissioner & Secretary (Power), Govt. of Manipur, Imphal - 795001
11. Addl. Chief Secretary (Power), Govt. of Meghalaya, Shillong - 793001
12. Secretary (Power), Govt. of Mizoram, Aizawl - 796001
13. Secretary (Power), Govt. of Nagaland, Kohima - 797001
14. Principal Secretary (Power), Govt. of Tripura, Agartala - 799001
15. Chairman & Managing Director, Me.ECL, Lumjingshai', S.R. Road, Shillong - 793 001
16. Chairman & Managing Director, TSECL, Agartala - 799001
17. Chairman & Managing Director, NEEPCO Ltd., Lower New Colony, Shillong - 793 003
18. Chairman, APDCL/AEGCL/APGCL, Bijuli Bhavan, Paltan Bazar, Guwahati - 781 001
19. Director (Finance), NHPC Ltd., NHPC Complex, Sector-33, Faridabad - 121 003
20. Director (Operation), POWERGRID, Saudamini, Plot No. 2, Sector-29, Gurgaon, Haryana - 122 001
21. Director (Marketing & BD), PTC, NBCC Tower, 15 Bhikaji Cama, Place, New Delhi - 110066
22. Director (Coml.), NTPC Ltd. NTPC Bhawan, Scope Complex, Institutional Area, Lodhi Road - 03
23. Managing Director, OTPC, 6<sup>th</sup> Floor, A-Wing, IFCI Tower -61, Nehru Place, New Delhi - 110019
24. Executive Director (SO), NLDC, B/9, Qutub Institutional Area, Katwaria Sarai, New Delhi - 16
25. CEO, NVVNL, Core 5, 3<sup>rd</sup> Floor, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi - 03
26. Managing Director, APDCL, Bijuli Bhavan, Paltan Bazar, Guwahati - 781 001
27. Managing Director, APGCL, Bijuli Bhavan, Paltan Bazar, Guwahati - 781 001
28. Managing Director, AEGCL, Bijuli Bhawan, Paltan Bazar, Guwahati - 781 001

**Sub: Minutes of 19<sup>th</sup> TCC & 19<sup>th</sup> NER Power Committee Meetings held at Guwahati**

Sir,

Please find enclosed herewith the minutes of 19<sup>th</sup> TCC & 19<sup>th</sup> NERPC Meetings held at "**Hotel Radisson Blu**", Guwahati, Assam on **28<sup>th</sup> & 29<sup>th</sup> November, 2018** respectively for your kind information and necessary action. The minute is also available on the website of NERPC, [www.nerpc.nic.in](http://www.nerpc.nic.in).

**Encl: As above**

  
(P. K. Mishra)  
Member Secretary

Copy to:

1. PS to Chairman, NERPC and Hon'ble Power Minister, Govt. of Meghalaya, Shillong - 793 001
2. TCC Chairman and CMD, MeECL, Lumjingshai, Shillong - 793 002.

**Copy to TCC Members:**

1. Director (Distribution), Me. ECL, Lumjingshai, S.R. Road, Shillong – 793 002
2. Director (Transmission), Me. PTCL, Lumjingshai, S.R. Road, Shillong – 793 002
3. Director (Tech.), TSECL, Banamalipur, Agartala -799 001.
4. Director (Generation), TPGCL, Banamalipur, Agartala -799 001.
5. Managing Director, MSPCL, Electricity Complex, Keishampat, Imphal – 795 001
6. Managing Director, MSPDCL, Secure Office Bldg. Complex, South Block, Imphal – 795 001
7. Director (Tech.), NEEPCO Ltd., Lower New Colony, Shillong-793 003.
8. Regional ED (East –II), NTPC, 3<sup>rd</sup> Floor, OLIC Bldg., PI No- N.17/2, Nayapalli, Bhubaneswar-12
9. Executive Director, NERTS, PGCIL, Lapalang, Shillong - 793006
10. Executive Director (Comml.), NEEPCO Ltd., Lower New Colony, Shillong-793003.
11. Executive Director (O&M), NEEPCO Ltd., Lower New Colony, Shillong-793003.
12. Executive Director (Comml.), NHPC, NHPC Office Complex, Faridabad-121003.
13. Executive Director (O&M), NHPC, NHPC Office Complex, Faridabad-121003.
14. Executive Director (Marketing), PTC, NBCC Tower, 15 Bhikaji Cama, Place, New Delhi – 110066
15. Executive Director, NERLDC, Lapalang, Lower Nongrah, Shillong - 793006
16. Chief Engineer (GM), CEA, 6<sup>th</sup> Floor, Sewa Bhawan, R.K.Puram New Delhi-110066.
17. Chief Engineer (NPC), NRPC Complex, Katwaria Sarai, SJSS Marg., New Delhi - 110016
18. Engineer-in-Chief, P&E Dept., Govt. of Mizoram, Aizawl – 796 001
19. Chief Engineer (E Zone), Dept. of Power, Govt. of Arunachal Pradesh, Itanagar-791111.
20. Chief Engineer (W Zone), Dept. of Power, Govt. of Arunachal Pradesh, Itanagar-791111.
21. Chief Engineer (TP&MZ), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 1
22. Engineer-in-Chief (Power), Dept. of Power, Govt. of Nagaland, Kohima – 797 001.
23. GM (AM), NERTS, POWERGRID, Lapalang, Shillong – 793006
24. VP (Plant), OTPC, Pallatana, Udaipur, Kakraboron Road, South Tripura – 799116
25. GM (BD), NVVNL, Core 5, 3<sup>rd</sup> Floor, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi – 03
26. Chief Engineer, Loktak HE Project, NHPC, Komkeirap, Manipur-795124.
27. CGM, AEGCL, Bijuli Bhawan, Paltan Bazar, Guwahati – 781 001
28. CGM, APGCL, Bijuli Bhawan, Paltan Bazar, Guwahati – 781 001
29. CGM, APDCL, Bijuli Bhawan, Paltan Bazar, Guwahati – 781 001
30. CGM (LDC), SLDC Complex AEGCL, Kahelipara, Guwahati-781019.
31. Head of SLDC, Me. ECL, Lumjingshai, S.R. Road, Shillong-793001
32. Head of SLDC, Dept. of Power, Govt. of Arunachal Pradesh, Itanagar-791111
33. Head of SLDC, Dept. of Power, Govt. of Nagaland, Dimapur
34. Head of SLDC, Dept. of Power, Govt. of Manipur, Keishampat, Imphal-795001
35. Head of SLDC, P&E Dept., Govt. of Mizoram, Aizawl-796001
36. Head of SLDC, TSECL, Agartala – 799001

**Special Invitee(s):**

37. Chairperson, CEA, Sewa Bhawan, R.K.Puram, New Delhi – 110066
38. Member (Power Systems), CEA, Sewa Bhawan, R.K.Puram, New Delhi – 110066
39. Secretary, North Eastern Council, Nongrim Hills, Shillong – 793 003
40. Member Secretary, ERPC, 14 – Golf Club Road, Tollygunge, Calcutta – 700 033
41. Member Secretary, NRPC, NRPC Complex, 18-A, S.JS.S. Marg, Katwaria Sarai, New Delhi – 16
42. Member Secretary, WRPC, MIDC Area, Marol, Andheri (E), Mumbai – 400 093
43. Member Secretary, SRPC, 29 – R.C. Cross Road, Bangalore – 560 009
44. Director, NETC, 1<sup>st</sup> Floor, Corporation Tower, AMBIS Mall Complex, NH-8, Gurgoan – 122001.

  
**Member Secretary**

भारत सरकार **Government of India**

विद्युत मंत्रालय **Ministry of Power**

उत्तर पूर्वी क्षेत्रीय विद्युत समिति **North Eastern Regional Power Committee**



**RECORD NOTE OF DISCUSSION**

**OF**

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

**&**

**19<sup>TH</sup> NERPC MEETING**

***(UNDER THE AEGIS OF MeECL)***

Venue : Hotel Radisson Blu, Guwahati

Date (TCC) : 28<sup>th</sup> November, 2018

Date (NERPC) : 29<sup>th</sup> November, 2018

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**SUMMARY RECORD OF DISCUSSIONS**  
**19<sup>TH</sup> TECHNICAL COORDINATION COMMITTEE**  
**&**  
**19<sup>TH</sup> NORTH EASTERN REGIONAL POWER COMMITTEE MEETINGS**

The 19<sup>th</sup> TCC & 19<sup>th</sup> NER Power Committee meetings were held on 28<sup>th</sup> & 29<sup>th</sup> November, 2018 respectively at “Hotel Radisson Blu”, Guwahati. The meetings were hosted by NERTS, POWERGRID.

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

**I : PROCEEDINGS OF THE 18<sup>TH</sup> TCC MEETING**

The meeting started with welcome address by Shri. U Kakati Addl General Manager, NERTS, POWERGRID. Shri Kakati welcomed all TCC members and participants to the 19<sup>th</sup> TCC meeting and wished all participants a comfortable stay at the venue. Thereafter, Shri E.W. Nongrum, Chairman, TCC addressed the 19<sup>th</sup> TCC meeting. In his brief speech, Shri Nongrum stated that TCC is an important forum for resolving various problems to make NER a self-reliant in Power sector. He impressed upon the house that each utility should improve its own performances and try to deliver the mandate of the government i.e. to supply power to all household. Shri P. K. Mishra, Member Secretary, NERPC welcomed all delegates of the 19<sup>th</sup> TCC meeting on behalf of NERPC. He expressed his sincere thanks to POWERGRID for hosting the 19<sup>th</sup> TCC & 19<sup>th</sup> NERPC meetings and for making excellent arrangement and providing a comfortable stay for the delegates.

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

**II : PROCEEDINGS OF THE 19<sup>TH</sup> NERPC MEETING**

The 19th NER Power Committee meeting commenced with bouquets presentations to dignitaries followed by ceremonial lighting of lamps by Shri James K Sangma, Hon'ble Power Minister, Meghalaya & Chairman, NERPC, Shri T. Ayemi, Hon'ble Adviser Power, Nagaland, Shri P.S. Mhaske, Chairperson, central Electricity Authority (CEA), Shri P. K. Mishra, Member Secretary, NERPC & Shri D.S. Yadav, Executive Director, NERTS, POWERGRID.

**Shri D.S. Yadav, Executive Director, NERTS** delivered the welcome address. Shri Yadav extended warm welcome to all the dignitaries, senior officials of central and state government departments and utilities and participants of the 19th NER Power Committee meeting. He urged all the constituents to come forward and solve mutual and common problems together for the benefit of NER region.

**Shri P. K. Mishra, Member Secretary, NERPC** welcomed all participants and expressed gratitude for participation in the meeting. He mentioned that during the last one year many developments have been done in the power sector in the region. He mentioned that TCC/NERPC Meetings should be held regularly to address the issues of the region. He requested that the trend should continue regularly. His speech is placed at **Annexure – III**.

**Shri P. S. Mhaske, Chairperson, CEA** welcomed all participants and expressed gratitude for participation in the meeting. He mentioned that CEA being the Apex body of Indian Power Sector has always been trying its best to improve the power sector in the country. He stated that many projects have been sanctioned under PSDF and once these projects are completed, NER will also reach the playing field as other region of the country. He also mentioned that many transmission projects have been approved by CEA in the region and this will enhance the transmission capacity. He requested all the members to actively participate in various meetings of NERPC for their benefits. He also suggested that TCC/NERPC meetings should meet frequently so that issues of the region can be discussed and resolved. He thanked POWERGRID for the excellent arrangement and pleasant stay.

**Shri Ayemi, Hon'ble Adviser Power, Govt. of Nagaland** in his brief address expressed gratitude to NERPC and NERLDC for providing continued assistance to Nagaland in managing day to day power supply in the state. He mentioned that as on date Nagaland has only few states own Small Hydro Project (SHP) in operation accounting for 26.7 MW and the state is totally dependent on its share of allocation from central sector. The state is facing acute power crisis during dry season as the government cannot afford to buy expensive power from market and only by generation of state own hydro generation capacity, the financial health of the state power utility can be stabilized. There is high potential of Small Hydro Electricity Project (SHEP) in the state and the department has now identified various viable hydro potential locations and we are referring the matter to Ministry of Power, Govt. of India for funding. However we feel that the present pattern of financial support of the Ministry of New and Renewable Energy (MNRE), New Delhi is grossly inadequate and it is leaving us to seek additional fund from NEC/DoNER or other financial institution for gap funding. Therefore the current funding ceiling limit on Small Hydro Electricity Project (SHEP) should be immediately lifted and based on merit there should be 100% funding by the Ministry of New and Renewable Energy.

Full text of the speech of Hon'ble Adviser Power, Govt. of Nagaland is placed at **Annexure – IV**.

**Shri James K Sangma, Hon'ble Power Minister, Meghalaya & Chairman, NERPC** addressed the 19th NER Power Committee. He stated that the Reliable Communication is very important to operate the grid smoothly and hoped that Govt. of India will assist in granting 100% funding in line with other projects. He mentioned that Sikkim being a beneficiary and member of NEC/DoNER so the same should be considered as member of NERPC Forum for the benefits of NER. Further, he mentioned that problem faced in NER is the acute shortage of manpower. No doubt that the power supply availability has improved by leaps and bounds but sadly manpower still remains disproportionately the same. We understand that unless this issue is addressed the power sector will continue to face uphill challenges. Finally, he addressed that Capacity Building is the most important part in the growth of any Engineering organization.

Full text of the speech of Hon'ble Power Minister, Meghalaya & Chairman, NERPC is placed at **Annexure – V**.

**Shri Tamiyo Taga, the Hon'ble Power Minister, Govt. of Arunachal Pradesh** could not attend the meeting due to unavoidable circumstances. In his note he wanted to point out that

Comprehensive scheme for development of transmission and distribution in Arunachal Pradesh has been in operation under POWERGRID for the last few years. This project was sanctioned under North Eastern Regional Power System Improvement Program by the Government of India. Despite the project being executed by a giant transmission utility like POWERGRID; it could not make any appreciable progress. The reasons could be of various natures and factors. From what it has been made to understand that the main reason started to be is the very low rate in cost estimation and therefore tendering processes couldn't make much way due to lack of talkers. It is also made to understand that the cost estimation of the project is being revised to more than double the original cost even before the project could take off with desired momentum. That led me to suspect with pain that there must have been serious lapses somewhere. POWERGRID may need to have a retrospection to find where the lapses were. Further, he mentioned that the 600 MW Kameng Hydro Electric Project is at the verge of being commissioned. The 7th Standing Committee has cleared for handing over of Balipara-Khupi 132 KV transmission line to the Department of Power AP for which I express my sincere thanks to the Standing Committee and the NERPC. I request all the stake holders, especially the NEEPCO to take proactive initiative to handover the transmission line to DOP, AP has agreed by all in the recently meeting organized by CEA recently in New Delhi in compliance to 7th Standing Committee decision. I urge upon NERPC forum to facilitate early transfer of the asset between DOP, AP and NEEPCO.

His speech was taken as read and placed at **Annexure – VI**.

**Shri Tapon Kr. Gogoi, the Hon'ble Power Minister, Govt. of Assam** could not attend the meeting due to unavoidable circumstances. In his note he wanted to point out that Peak demand has breached 1850 MW. Assam own generation being less than 300 MW and PPAs' have been signed with various ISGS to fulfil our requirement. But delay in commissioning of some of the projects in this region has caused acute problem in meeting the increasing demand of the state. He stated that

Assam is trading power regularly from power exchange to meet the shortfall on day to day basis, cost of which sometimes crosses the bearable limit of our capacity. This will eventually cause an increase in the tariff of electricity which will have to be borne by the ultimate consumers of the state. This forum may deliberate on this issue keeping in mind the general interest of the people of the region.

His speech was taken as read and 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 thank from NERPC Secretariat side by Shri B. Lyngkhoi, Director (C&O).

**RECORD NOTES OF DISCUSSION  
OF  
19<sup>TH</sup> TCC & 19<sup>TH</sup> NERPC MEETINGS**

**III : CONFIRMATION OF THE MINUTES OF 18<sup>TH</sup> TCC MEETING & 18<sup>TH</sup> NERPC MEETING (S)**

The minutes of the 18th TCC & NERPC Meetings held on 10<sup>th</sup> & 11<sup>th</sup> October, 2017 at Shillong were circulated vide letter no. NERPC/OP/Committee/2017/813(A) dated 03.11.2017.

No comments or observations were received from any constituents and hence, TCC and NERPC may confirm the minutes of above meetings.

**Deliberation of the TCC**

***TCC confirmed the minutes of 18<sup>th</sup> TCC meeting.***

**Deliberation of the RPC**

***The RPC confirmed the minutes of 18<sup>th</sup> NERPC meeting.***

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

**ITEM NO. A.1 : 100% FUNDING FOR RELIABLE COMMUNICATIONS & DATA ACQUISITION SCHEME FROM PSDF – NERPC**

In 138<sup>th</sup> OCCM, MePTCL informed the forum, that the Techno Economic Sub Group meeting was held on the 16th November 2017 at 10:30 hrs in the office of the Chief Engineer (NPC), CEA, NRPC Building, 18A, Katwaria Sarai, New Delhi wherein the scheme for Reliable Communication & DATA Acquisition System upto 132 kV for MePTCL, Meghalaya was examined during the meeting.

- Grant requested by MePTCL for 100 %, Communication schemes but eligible for 50% as per NPC view.

EE (SP), MePTCL requested the OCC forum to take up with NLDC for ensuring 100% funding of the Communication related projects. The forum requested MePTCL to incorporate the changes in the revised DPR and to submit within November 2017 for finalization by Dec 2017.

NERPC assured the forum that the matter will be placed in the next TCC/NERPC Meetings so that funding of 100% funding or atleast 90-10 would be taken up with CEA/MoP for consideration for NER as special category states.

**Deliberation of the TCC**

ED(LD&C) , POWERGRID stated that Gol is not keen to extend 100% funding for communication schemes. AGM, TSECL stated that in the Sep'15 meeting convened by Joint Secy. Ministry of Power it was agreed that for various power projects of NER under PSDF would be 100% funded.

SE, DoP Nagaland informed that for majority of NER states there is no mechanism for cost recovery of OPGW, so commercial viability is difficult.

The forum unanimously recommended for NER, "Reliable Communications Scheme" should be 100% funded from PSDF and referred for further deliberation in NERPC.

**Deliberation of the RPC**

SE(SO&PSC), Ar. Pradesh informed that NPC, CEA & NLDC had instructed to follow the SOR of POWERGRID for projects/schemes under PSDF. He stated that generalized SoR is not possible for DoP Ar. Pradesh and requested that States should be allowed to follow their own SoR.

CE, NPC- stated that for other schemes 100% funding from PSDF is allowed/eligible, whereas, for communication schemes it was eligible for only 30% initially, but with request from them, it was later raised to 50%.

Background – only 6 fibers required. Practice in other states to earn revenue by leasing out fiber for commercial fibres. This is the reason why GoI is reluctant to fund 100%.

Director, NERPC stated that considering the remoteness and less population in NER, the question of leasing out the fiber for commercial purposes is not viable and requested that 100% funding may be allowed in case of NER.

Dir, MePTCL – endorsed the view of NERPC and stated that even though leasing out to BSNL the revenue earned is very less. He Requested the house to adhere to earlier decision.

MD, AEGCL – also agree

PCE, CEA – informed that while preparation of DPR: various rates of PGCIL are available which may be used particularly those for hilly region.

Chairman, NERPC concluded that 100% funding should be considered for NER in line with other schemes.

***The RPC endorsed the view of NERPC Chairman and decided that a Resolution will be adopted by Hon'ble Power Ministers of NER to Ministry of Power for granting 100% funding for Reliable Communication for NER States.***

ITEM NO. A.2	:	ACUTE ROW ISSUE FOR MAINTENANCE OF TRANSMISSION LINES IN ASSAM BY POWERGRID – NERPC
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During various OCC & PCC Meetings, POWERGRID, NERTS expressed / shared their difficulties in maintaining some of the important transmission lines viz. 800 kV HVDC

BNC-AGRA Line, 400 kV D/C Bongaigaon – Balipara – III & IV, 400 kV D/C Silchar – PK Bari – I & II etc. due to severe opposition from one activist group and some individuals / groups. Presently, with active support and co-operation of all concerned local administration, emergency maintenance of the said lines could be done by POWERGRID in certain identified stretches only. However, routine maintenance of lines in various areas like Udalguri, Kamrup, Baksa, Barpeta, Bongaigaon, Chirang, Hailakandi & Karimganj Districts of Assam is adversely affected due to severe opposition by local villagers backed by some activist group.

The forum may please deliberate the issue and escalated the same to appropriate level of administration for permanent solution.

**Deliberation of the TCC**

After detailed deliberation, the TCC decided to refer the matter to RPC for further deliberation regarding maintenance of transmission lines in Assam by POWERGRID.

***The matter was referred for discussion to RPC.***

**ii. Acute RoW in 3 locations of Railway diversion work of 132kV Nirjuli-Ranganadi**

Due to acute ROW issue in 3 locations of Railway diversion work of 132kV Nirjuli – Ranganadi Line suffering since Dec'2016. During 150<sup>th</sup> OCC Meeting POWERGRID requested NERPC to intervene into the matter for early resolution of the long pending issue.

**Deliberation of the TCC**

SE(SO&PSC) DoP Ar. Pradesh informed that POWERGRID has never approached them. He also informed that cabinet note resolution has been prepared and put up to competent authority.

POWERGRID intimated that the responsibility of RoW clearance as per MoU rests with Government of Ar. Pradesh and accordingly POWERGRID has taken up the issue with administration. But since long the same remain unresolved for which diversion work as well as OPGW stringing (MW Vacation Project) is suffering badly. POWERGRID requested the forum to take up the issue with Government of Ar. Pradesh for early resolution of the issue.

***The matter was referred for discussion to RPC.***

**Deliberation of the RPC**

Commissioner (Power), Govt. of Ar. Pradesh requested POWERGRID to come and discuss with them to resolve the issue.

***RPC noted as above.***

Regarding the issue of RoW faced by POWERGRID in Assam, the RPC requested Chairman, NERPC to write to Union Power Minister for the same.

***RPC noted as above.***

**ITEM NO. A.3 : INCLUSION OF SIKKIM AS NERPC MEMBER - NERPC**

During the 9<sup>th</sup> NERPC Meeting held on 12<sup>th</sup> August, 2010 at Shillong, Resolution was made by NERPC for inclusion of Sikkim as NERPC Member. Meanwhile, Ministry of Power, Govt. of India vide letter dated 31.10.2018 has desired to get a comments/feedbacks on “whether Sikkim can be included in North Eastern Region in place of Eastern Region, where it is currently included”

**Deliberation of TCC**

ED, NERLDC informed the forum that Ministry of Power has also written a letter to POSOCO for its comments on the matter. Members opined that resolution made in the 9<sup>th</sup> NERPC should be maintained, since keeping Sikkim in NER grid is possible with some additional steps. The forum recommended for inclusion of Sikkim in NERPC and referred the matter further deliberation in RPC.

**Deliberation of RPC**

RPC members strongly opined that Sikkim should become a member of NERPC due to the factual points:

- a. Sikkim is a member of North Eastern Council (NEC)/DoNER and all the development activities funded in Sikkim are being shared with NER States. NER members felt that if development activities are being shared by NER States, NER has the right to share the power projects being developed in Sikkim.
- b. Electrically can be easily made from NER to Sikkim with some additional steps.
- c. If NER is being connected to ER, it is not so difficult that Sikkim cannot be connected with NER. Any disturbance can be emanated from anywhere not particularly Sikkim.

- d. Geographically, culturally, etc., Sikkim is very much the part of NER.
- e. Power allocation from Sikkim projects is in the purview of Ministry of Power. Power can be allotted by MoP

***In view of above, the RPC decided that a Resolution will be adopted by Hon'ble Power Ministers of NER to Ministry of Power for inclusion of Sikkim as member of NERPC.***

<b>A.4</b>	<b>:</b>	<b>LAND COMPENSATION OF TRANSMISSION LINE CORRIDOR DURING CONSTRUCTION - NERPSIP</b>
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Modality for land compensation of transmission lines pending for Mizoram and Arunachal Pradesh are to be notify by respective State Govts.

**Deliberation of the TCC**

Members requested that respective State Governments should frame up the land compensation methodology and notify the same so that works can be completed as per schedule.

Put up for further deliberation in RPC.

**Deliberation of the RPC**

Commissioner (Power), Ar. Pradesh informed that Govt. has approved the land compensation but it is yet to notify. It is expected that the same will be done soon.

Since no representative from Mizoram was present, the status could not be updated.

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

<b>A.5</b>	<b>:</b>	<b>IMPLEMENTATION OF SPS FOR TRANSFER OF 160 MW POWER TO BANGLADESH THROUGH TRIPURA-BANGLADESH LINK AND MODIFICATIONS SUGGESTED FOR OTHER SPSs IN NER - NERPC</b>
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In Special Meeting on SPS, UFR etc. held on 23.06.17, NERTS, POWERGRID presented the draft scheme to implement the suggested SPS for transfer of 160 MW power to Bangladesh through Tripura-Bangladesh link. The Sub-Committee discussed the suggested schemes in detail and agreed in principle to implement the schemes.

The forum requested NERPC to take up the matter with CEA/CTU/NLDC for implementation at the earliest after vetting in OCC forum. Further, the forum expressed that to implement the above scheme, physical visit to their sub-stations and meeting with operation teams of Bangladesh is a must for security of NER Grid.

Member Secretary, NERPC stated that the visit to Bangladesh could not be planned without proper approval & funding, as NERPC Secretariat has no provision for funding such types of visit. Since CTU-POWERGRID is involved in construction of cross border transmission lines to Bangladesh border, Hence CTU may arrange meeting and visit to Bangladesh to resolve operational issues with Bangladesh.

### **Deliberation of the TCC**

NERLDC informed that this will be discussed in next Operational Co-ordination Committee (OCC) meeting.

Director, NERPC requested that CTU, being implementing agency for International lines, is to arrange the visit.

ED(LD&C) –stated that for Operational issues viz. SPS etc./OCC has been formed & first scheme may be prepared. He also opined that other stakeholders may be co-opted to resolve the issue and attend OCC for solving any technical issue. AGM, TSECL referred that visit is required to understand the scheme.

MD, MSPCL told that security of NER grid is of paramount importance and SPS scheme for grid safety is required and so visit to other end may be done to understand the status of equipments/protections available at that end.

TCC Forum requested NERPC Secretariat that their views should be intimated to MoP. MS, NERPC stated that NERPC would write to Ministry of Power regarding requirement of visit and request to Ministry of Power for assigning fund for visit.

### **Deliberation of the RPC**

**CE, NPC** – may be taken up in meeting with MoP. In radial mode to Bangladesh, when drawal >160MW then load disconnection to be done in Bangladesh to avoid NER grid failure.

**JSC&JWG** are the nodal authority and would take final decision after Operational Coordination Committee clears the proposal.

**ED, NERLDC** – persistent low voltage affects entire NER due to low voltage in many CSGS viz. Monarchak, R.C. Nagar. So it is required.

**AGM, TSECL**- 160-190MW taken, there has been no problem.

**The RPC noted and approved the recommendation of TCC that NERPC should write to MoP to arrange for above visit.**

<b>A.6</b>	<b>: INCLUSION OF NETC AS MEMBER OF NERPC - NETC</b>
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NETC vide letter dated 28.09.2016 had informed NERPC that North East Transmission Company Limited (NETC) is a JV of PGCIL, OTPC & six other States of NER and accordingly requested for full membership of NERPC forum for better co-ordination required for running the Palatana Transmission System.

Accordingly, this matter was put up and deliberated in 17<sup>th</sup> TCC & 17<sup>th</sup> NER Power Committee Meetings. TCC members agreed to grant NETC for full membership of NERPC. The recommendation of TCC was also endorsed by RPC. Accordingly, NERPC vide their letter No. NERPC/OP/Committee/2017/5154-55 dated March 29, 2017 had taken up the matter with CEA, New Delhi recommending the resolution as agreed by the NERPC forum. However, till date no intimation in this regard has been received by NETC.

Therefore, it is urged that the respected house of NERPC may again discuss the issue and take a suitable decision in this regard since NETC is only operating in NER and the number of members in NER is very few compare to other regions. Therefore, NETC may kindly be granted as full membership of NERPC.

**Deliberation of the TCC**

Since NETC is only operational in NER; members have no objection to include NETC as member of NERPC. The matter was referred to RPC for deliberation.

*TCC recommended for approval of RPC.*

**Deliberation of the RPC**

**PCE, CEA** – Since NETC is joint venture of NERTS, PGCIL, hence NERTS can represent the views of NETC.

MD, NETC, stated that in joint venture sometimes there is conflict of interest and hence it is better if NETC becomes independent member

***The forum felt that since NETC is only operational in NER and members have no objection to include NETC as member of NERPC. The RPC approved and recommended NETC as full membership of NERPC.***

*The forum requested NERPC to take up the matter with MoP for amendment of NERPC's Notification*

<b>A.7</b>	<b>: DIVERSION OF 400 KV D/C SILCHAR-BYRNIHAT-AZARA TRANSMISSION LINE BETWEEN LOCATION NO. 573 TO 580 (2.33 KM) TO FACILITATE CONSTRUCTION OF TETELIA - BYRNIHAT RAILWAY LINE OF NORTHEAST FRONTIER RAILWAY (NFR).</b>
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This issue was deliberated in 134<sup>th</sup> OCC Meeting where in the members agreed to the proposal of NETC for booking of the diversion expenditure of Rs. 14.0 Cr. under PoC mechanism and recommended for approval of TCC and NERPC. Accordingly, this matter was put up and deliberated in 18<sup>th</sup> TCC & 18<sup>th</sup> NER Power Committee Meetings. TCC was of the opinion that Railways should deposit the amount on submission of DPR by NETC as is the norm followed by Railways for diversion of roads & Transmission lines. However, considering the intricacy the matter was subsequently referred for discussion to RPC. The RPC endorsed the view of TCC and it was decided that a Resolution in this regard will be adopted by Hon'ble Power Ministers of NER to Ministry of Power & Ministry of Railways to pay to NETC.

Chairman, NERPC accordingly vide his D. O letter: NERPC/Committee/2017 Dated 12<sup>th</sup> Oct 2017 enclosing a copy of the resolution adopted and signed by the Power Ministers NER in respect to the subject agenda had taken up the matter with the Union Minister of State for Power (I/c). Vide the said letter attention of the Union Minister was drawn to have a logical conclusion regarding bearing of the cost by Railways instead of by NETC for the diversion of the subject line to facilitate the construction of Railway line. However, till date no intimation in this regard has been received by NETC.

Therefore, it is urged that the respected house of NERPC may again discuss the issue and take a suitable decision in this regard.

**Deliberation of the TCC**

***After deliberation, TCC refer the issue to RPC.***

**Deliberation of the RPC**

**MD, NETC - stated that are two options:**

**either (i)** earlier resolution may be adopted 20 Cr. Total expenditure

**Or (ii) capitalization through RPC approval as suggested by CERC.**

**Dir, MePTCL** – as a matter of principle the work should be done on a deposit basis by Railways.

**Manipur & Assam-** strongly opposed to this case.

Chairman, NERPC requested to consider as a special case and the same should not be quoted in future.

***After detailed deliberation, RPC decided and approved that as a special consideration this would be capitalized by NETC through PoC tariff.***

<b>A.8</b>	<b>: WITHDRAWAL OF CRPF DEPLOYED AT LOKTAK POWER STATION - NHPC.</b>
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NHPC informed vide Ministry of Home Affairs letter No. ID12013/2018/NHPC-Loktak(M)/PF-II Dated 28/09/2018 (copy enclosed), that the proposal for continuation of CRPF for security of Loktak Power Station had been examined in the Ministry and it has been decided to replace the CRPF with CISF for the security of the Loktak Power Station. CISF is requested to take over the security of Loktak Power Station, Manipur from CRPF by deploying equal number of manpower deployed by CRPF (710 Personnel) on internal security duty pattern, with immediate effect. Earlier, the same issue had been raised in 2011 and as per 11th TCC & 11th NERPC meeting held on 5th & 6th May 2011, NERPC & Govt. of Manipur along with NHPC had taken up the matter in 2012 with Ministry of Power, Govt of India to review the decision of withdrawal of CRPF.

The cost of deployment of CISF at Loktak Power Station, Manipur will have higher tariff implications. NHPC is pursuing with Ministry of Power (Copy of Letter enclosed) not to withdraw CRPF from Loktak Power Station.

The withdrawal; of CRPF will lead to a sense of insecurity amongst the employees affecting the operation and generation of Power Station. Further, the cost of

deployment of 710 CISF personnel at Loktak Power Station will make the generated power substantially costlier (increase in tariff rates) for the beneficiary state i.e. North Eastern States.

Being an important issue concerning smooth operation of Loktak Power Station and as interest of North Eastern States is also involved, NHPC requests the forum to take up the matter, not to replace CRPF with CISF, through NERPC & NEC for an early review by Home Ministry, Govt. of India.

**Deliberation of the TCC**

MD MSPCL strongly recommended that the status quo to be maintained as per earlier decision of RPC.

***Put up for further deliberation in RPC.***

**Deliberation of the RPC**

***The RPC noted and approved the recommendation of TCC that NERPC should write to MHA to maintain the status quo for the benefit of NER beneficiaries.***

A.9	:	STERLITE AS MEMBER OF NERPC – NERPC.
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**Deliberation of the TCC**

M/S Sterlite informed that many ongoing projects are being executed by them in NER and requested to include them as member of NERPC so that they can have proper coordination with constituents.

Manipur and Meghalaya opposed for inclusion of STERLITE in general forum to participate in general discussions of NERPC.

Other members suggested that they can be called for case to case basis only.

***Put up for further deliberation in RPC.***

**Deliberation of the RPC**

After detailed deliberation, it was agreed to include STERLITE as a Special Invitee to OCC/TCC on a case to case basis. M/s Sterlite will also have to contribute the membership fee to NERPC.

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

A.10	:	SPECIAL CONSIDERATION FOR ARUNACHAL PRADESH - AR. PRADESH.
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**Deliberation of the TCC**

Due to non-availability of multilateral banks like World Bank, ADB etc. special provisions are to be recommended to Gol.

- (i) Projects having Environmental Clearance & Technical Economic Clearance before 2013 should be excluded from e-flow notification issued after 2013.
- (ii) Cost of storage in 5 projects amounting to INR 15,000 Cr. Should be provisioned by Gol, as developers are not able to infuse th

PCE, CEA-automation in power sector going on. Distribution sector will also be using the communication highways set up.

**II. SUB-GROUP FOR IMPROVING GRID SECURITY BY HYDRO POWER**

CE, DoP, Ar. Pradesh stated that to improve grid security by hydro power; a Sub-group may be formed. Further, he mentioned that Ar. Pradesh is not getting benefit from World Bank Projects. He requested the assistance of NERPC forum.

Comr. & Secretary, Nagaland mentioned that cost of construction of power project in NER should not be compared with other region. He mentioned that in NER the cost for 1 MW is not less than 15-16 Crore. Timeline fixed for most projects is not tenable. Piecemeal is not acceptable.

Dir, MePTCL mentioned that when there is any environmental damage same may be reimbursed to constituents, otherwise unnecessary financial burden would be passed to consumers.

**Deliberation of the RPC**

***The RPC noted and requested NERPC Secretariat to look into the matter as suggested by the members for the benefit of NER beneficiaries.***

**CATEGORY – B : ITEMS FOR APPROVAL**

**B.1 : SAMAST IMPLEMENTATION IN NER - NERPC**

As decided in the 5<sup>th</sup> Forum of Regulator (FOR) Technical Committee meeting on July, 2016, a robust mechanism known as SAMAST i.e. SCHEDULING (S), ACCOUNTING (A), METERING (M), AND (A), SETTLEMENT OF (S) TRANSACTIONS (T) IN ELECTRCITY should be in place in all the States across the Country. The implementation would include Metering at intra-State level, AMR scheme to fetch data to SLDC, intra-State scheduling, Open Access web portal, Accounting, Settlement system etc. This would pave way for intra-State ABT implementation.

Status in NER is as below:

- a. Inclusive approach has been adopted in NER for SAMAST implementation in all NER States and SAMAST Group formed by Member Secretary,NERPC has organized extensive meetings with all SLDCs and vendors.
- b. Detailed Project Report of all States prepared and submitted for PSDF funding on 30.05.2018. Summary of project cost is as below:

**SAMAST DPR OF NER STATES**

<i>Figures Rs. in Lacs</i>								
SN	Name	No. of Meters	Cost of Meter	Cost/Meter	Cost of HW/SW	Project cost of SAMAST	CT/PT Replacement	Grand Total
1	AP	121	55.7	0.461	1287.6	1343.3	0.0	1343.3
2	Assam	700	322.5	0.461	1530.8	1853.3	157.6	2010.9
3	Manipur	589	284.9	0.484	1561.6	1846.5	1685.5	3532.0
4	Meghalaya	374	180.9	0.484	1467.0	1647.9	229.3	1877.2

<i>Figures Rs. in Lacs</i>								
SN	Name	No. of Meters	Cost of Meter	Cost/Meter	Cost of HW/SW	Project cost of SAMAST	CT/PT Replacement	Grand Total
5	Mizoram	413	190.3	0.461	1435.7	1626.0	200.0	1825.9
6	Nagaland	198	91.2	0.461	1335.9	1427.1	445.0	1872.2
7	Tripura	366	168.6	0.461	1343.1	1571.7	1339.3	2851.0
<b>Total =</b>		<b>2761</b>	<b>1294.0</b>	<b>-</b>	<b>9961.8</b>	<b>11255.8</b>	<b>4056.6</b>	<b>15312.5</b>

- c. Matter was discussed in Technical Committee meeting of Forum of Regulators (FOR) held at Shillong on 16.04.2018 and it was decided as below:
- d. NERPC will act as a Nodal Agency to finalize the DPR and also to carry out bulk/single tendering for NER States.
- e. NERPC will interact with each State so that they get approval of the respective Govt. of that State to carry out bulk/single tendering.
- f. Subsequently, as agreed in OCC and CC forums of NERPC, various Committees have been formed comprising of NER utilities to finalise technical specs of hardware, software and all related items to enable to commence the process of tendering.
- g. As suggested by Chairperson, Hon'ble Assam SERC during the meeting with SAMAST Group on 16.05.2018, it was agreed to follow QCBS (Quality and Cost Based System) for selection of bidder in SAMAST project as at times only L1 criteria of selection do not ensure quality.
- h. On approval of fund by PSDF, SAMAST Group of NER would go ahead with tendering and subsequent to that LOA for SAMAST would be issued by respective States.
- i. In the OCC forum of NERPC, it has been agreed that there would be a Project Monitoring Committee for monitoring implementation of SAMAST which would comprise of all SLDC heads and members of SAMAST Group of NER.

**Deliberation of the TCC**

TCC recommended the following for approval of NERPC.

- a. Bulk tendering for SAMAST pertaining to all states of NER by NERPC Secretariat.
- b. LOA by individual states.
- c. QCBS (Quality and Cost Based System) for selection of bidder/s for SAMAST project.
- d. Formation of project monitoring committee comprising of SLDC heads of NER & SAMAST group members

TCC also recommended for NERPC approval regarding taking up with TESC of PSDF for funding of CT/PT cost as SAMAST would not be effective without appropriate CT/PT.

In connection with CT/PT requirement of Manipur & Tripura, it was agreed to relook in to it and review the numbers/quantity with more details.

***TCC noted and recommended for approval of RPC.***

**Deliberation of the RPC**

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

<b>B.2</b>	<b>:</b>	<b>IMPLEMENTATION OF ADMS IN NER - NERPC</b>
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The implementation of ADMS in NER under PSDF Fund was deliberated in various OCC forums and during 148<sup>th</sup> meeting, all constituents agreed that NERPC will act as a Nodal Agency for calling common tender for all NER States for following benefits:

- a. To attract more vendors
- b. To have a competitive price
- c. For early/uniform implementation of the scheme

**Deliberation of the TCC**

After detailed deliberation it was decided that the tendering on behalf of all constituents will be taken up by NERPC in line with SAMAST

***TCC noted and recommended for approval of RPC.***

**Deliberation of the RPC**

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

**B.3 : FOR SUB-GROUP TO RECOMMEND SUITABLE MEASURES AND ROADMAP FOR INSTITUTION BUILDING AND STRENGTHENING OF THE LOAD DESPATCH CENTRES (LDCs) - NERLDC**

Man Power Survey is being conducted under the FOR Sub-Group to Recommend Suitable Measures and Roadmap for Institution Building and Strengthening of the Load Despatch Centres (LDCs) and the matter was discussed during the 25th FOLD Meeting held on 07th August, 2018.

During 147th OCC Meeting, SE, SLDC, MeECL very briefly articulated the problems being faced by Meghalaya SLDC:

- a. Basic manpower requirement has increased. In light of frequent new regulations and intense monitoring the manpower required has drastically increased.
- b. Though most of the SLDC personnel have completed their certificate course in System Operation, there has been no increment or financial benefit for them.
- c. Officials posted in SLDC at the working level are frequently transferred after they are trained. This is resulting in wastage of trained manpower and hampering smooth operation of SLDC. He requested for ring fencing of SLDC at the earliest.

As deliberated in 147th OCC Meeting, the forum noted the above and requested NERPC to highlight the problems at the highest level viz. FOLD/TCC/RPC.

**Deliberation of the TCC**

TCC noted that report of the sub-group to recommend suitable measures and road map for institution building and strengthening of the LDCs has been approved and adopted by Forum of Regulators in its meeting dated 13th November, 2018 held at Bhubaneswar.

It was noted that NER SLDCs fall under small category as per the report and manpower to be in place in such SLDCs is 30-50.

Taking this in to account, it was recommended for NERPC approval for ensuring a minimum manpower of 30 in each SLDCs of NER, which should be followed by each state.

It was also recommended for NERPC approval to ensure independence of SLDCs and filling petition to respective SERC for ARR pertaining to SLDC

TCC noted and recommended for approval of RPC.

**Deliberation of the RPC**

The RPC noted and approved the recommendation of TCC.

**B.4 : REVIEW OF AUTOMATIC UNDER FREQUENCY LOAD SHEDDING (AUFLS) RELAY SETTINGS IN INDIAN POWER SYSTEM – NERPC**

Director/SE (O&P) stated that the stages of the operation of UFR from existing frequency band from 49.2 – 48.6 Hz (100MW) has been revised to 49.4 – 48.8 Hz (170MW) in four stages viz., 49.4 Hz, 49.2 Hz, 49.0 Hz, 48.8 Hz by NPC.

During 148<sup>th</sup> OCC Meeting issue was deliberated and constituents agreed for implementation of revised band of frequency and quantum of shedding from:

**EXISTING:**

Present UFR scheme	Total(MW)	Stg-I-49.2Hz 100 MW (all figs in MW)	Stg-II - 49.0Hz 100 MW (all figs in MW)	Stg-III- 48.8Hz 100 MW (all figs in MW)	Stg-IV - 48.6Hz 100 MW (all figs in MW)
AP	20	5	5	5	5
Assam	220	55	55	55	55
Manipur	20	5	5	5	5
Meghalaya	60	15	15	15	15
Mizoram	20	5	5	5	5
Nagaland	20	5	5	5	5
Tripura	40	10	10	10	10
<b>Total</b>	<b>400</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

**TO REVISE:**

Proposed UFR scheme	Total(MW)	Stg-I-49.4hz 100 MW(all figs in MW)	Stg-II - 49.2Hz 100 MW(all figs in MW)	Stg-III-49.0Hz 100 MW (all figs in MW)	Stg-IV-48.8Hz 100 MW (all figs in MW)
AP	34	10	10	10	10
Assam	374	90	90	90	90
Manipur	34	10	10	10	10
Meghalaya	102	25	25	25	25
Mizoram	34	5	5	5	5
Nagaland	34	10	10	10	10
Tripura	68	20	20	20	20
<b>Total</b>	<b>680</b>	<b>170</b>	<b>170</b>	<b>170</b>	<b>170</b>

As per calculation the load shed for Ar. Pradesh, Manipur and Nagaland are 8.5MW rounded off to 10MW.

For Mizoram since the demand met is less than 100MW no additional shedding is proposed.

During 148<sup>th</sup> OCC Meeting, the issue was deliberated and the forum recommended for approval of TCC/NERPC

*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.*

**B.5 : RELIABLE COMMUNICATION SCHEME UNDER CENTRAL SECTOR FOR NORTH-EASTERN REGION - POWERGRID**

OPGW based communication network for Reliable Communication Scheme for North-Eastern Region totaling to 2125 kms along with communication equipments was

discussed and agreed upon in the 18th NERPC/TCC meeting. Breakup of 2125kms of OPGW network is as below:

- a. 816 kms. of OPGW along with communication equipments for replacement under Central Sector.
- b. 1158 kms. of OPGW along with communication equipments for redundant and additional links under Central Sector.
- c. 150 kms. of OPGW along with communication equipments for replacement in Meghalaya under State Sector.

As per approval 150 kms OPGW installation alongwith communication equipments at para (c) above to be implemented by the concerned state utility i.e. MeSEB and balance 1974 kms by POWERGRID (816 kms. for replacement and 1158 kms. for redundant and additional links for Central Sector).

As per discussions in 9th NETest Committee meeting, 132kV Aizawl – Jiribam line (175 Km) has been considered against CS1-CS2 link (95km) in 18th NERPC minutes) **(Annexure-B.02)**. Accordingly, total requirement to be implemented by POWERGRID for Reliable Communication Scheme under Central Sector for North-Eastern Region shall be 2054kms at an estimated cost of Rs. 75 Crs.

The scheme will be implemented on cost plus basis. Tariff for the investment made is to be shared by all constituents as per applicable CERC regulation. The scheme shall become part of existing Commercial Agreement signed for ULDC Project.

*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.*

<b>B.6</b>	<b>:</b>	<b>PROCUREMENT OF 70 LAPTOPS WITH SOFTWARE BY POWERGRID - POWERGRID</b>
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(Refer Item No. D-40 of 145th OCC Meeting)

During deliberation in various Metering Meeting the forum decided to procure 70 nos.

of Laptop with software by POWERGRID for downloading of meter reading by the constituents. Accordingly, POWERGRID prepared Cost estimate of Rs. 49.29 Lakhs (Rs. 37.02 Lakh for Laptop & Rs. 12.27 Lakh for software licence) and processed for tendering. However, due to implementation of GST the cost estimate had to be revised. Further, during post GST regime the original software also become obsolete / end of life. Accordingly, the revised cost estimate worked out to be Rs. 59.47 Lakh (Rs. 36.17 Lakh for Laptop & Rs. 23.29 Lakh for new software licence). During 145<sup>th</sup> OCC Meeting the forum opined to procure laptop through ongoing tendering at cost estimate of Rs. 36.17 Lakh and float separate tender for new software licence at cost estimate of Rs. 23.29 Lakhs). This will be one time procurement and cost to be recovered from the NER constituents. The same has been agreed in 9<sup>th</sup> NETeST Meeting.

### **Deliberation of the TCC**

*TCC noted in line with recommendation of 9<sup>th</sup> NETEST Sub-committee and recommended for approval of RPC.*

### **Deliberation of the RPC**

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

<b>B.7</b>	<b>: PROCUREMENT OF REGIONAL SPARE 500MVA, 400/220kV TRANSFORMER AND 125MVAR, 420kV BUS REACTOR FOR NER - POWERGRID</b>
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Under various North Eastern Region Strengthening Scheme (NERSS) following Transformers and Reactors are going to be installed in NER by POWERGRID:

#### **Transformer**

- a. Two (2) nos. of 500MVA, 400/220kV, 3-Phase Transformer at Misa (PG) Substation.
- b. Two (2) nos. of 500MVA, 400/220kV, 3-Phase Transformer at Mariani (PG) Substation.

#### **Bus Reactor**

- a. One (1) nos. of 125MVAR, 420kV, 3-Phase Bus Reactor at Balipara (PG) Substation.

- b. One (1) nos. of 125MVAR, 420kV, 3-Phase Bus Reactor at Bongaigaon (PG) Substation.
- c. One (1) nos. of 125MVAR, 420kV, 3-Phase Bus Reactor at Silchar (PG) Substation.
- d. One (1) nos. of 125MVAR, 420kV, 3-Phase Bus Reactor at Imphal (PG) Substation.

However, there is no regional spare of Transformer and Reactor of above rating in NER which is likely to cause severe operational problem of Grid in the event of breakdown.

Accordingly, considering remoteness of the NE Region and also, longer lead time for repair / procurement of Transformer and Reactor, it is proposed to procure the following Transformers & Reactors as Regional Spare in NER against central sector NER transmission system in line with the procurement carried out in earlier occasions obtaining approval of NERPC and Standing Committee:

- a. one (1) no. of 500MVA, 400/220kV, 3-Phase Transformer and
- b. one (1) no. of 125MVAR, 420kV, 3-Phase Reactor

The issue was deliberated in details in 146th OCC Meeting and the members approved the proposal in-principle and referred to next TCC/RPC 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.*

<b>B.8</b>	<b>:</b>	<b>INSTALLATION OF LINE DIFFERENTIAL RELAYS IN TRANSMISSION LINE LENGTH LESS THAN 10 KM - POWERGRID</b>
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In 50th PCC Meeting it was decided to install Line Differential Relays for lines having length less than 10 Km. Accordingly, following lines are worked out for installation of Line Differential Relays:

SN	Line	Length (CKm)
1	132kV D/C RC Nagar – Agartala - I	8.38
2	132kV D/C RC Nagar – Agartala - II	8.38
3	132kV D/C Mokokchung – Mokokchung - I	1.70
4	132kV D/C Mokokchung – Mokokchung - II	1.70
5	132kV S/C Aizawl – Melriat	12.00
6	132kV S/C Badarpur – Badarpur	1.02
7	132kV S/C Imphal – Imphal - I	1.50
8	132kV S/C Imphal – Imphal - II	1.50
9	132kV S/C Kumarghat – PK Bari	5.00
10	132kV S/C Khliehriat – Khliehriat - I	7.80
11	132kV S/C Dimapur (PG) – Dimapur (S) - Old	0.65
12	132kV S/C Dimapur (PG) – Dimapur (S) - New	0.65
13	220kV S/C Balipara - Tezpur	8.62
14	220kV Salakati – BTPS - I	2.70
15	220kV Salakati – BTPS - II	2.70

The tentative expenditure for (1) Procurement of Relays, FO Cables, Connectors etc. and (2) OPGW for lines in SN 8 & 12 will be approximately Rs. 1.70 Crores (One Crores Seventy Lakhs Only). POWERGRID proposes to execute the job and recover the expenditure on PoC Mechanism obtaining approval of TCC & NERPC.

The issue was deliberated in details in 51<sup>st</sup> PCC Meeting and the members approved the proposal in-principle and referred to next TCC/ RPC meeting.

**Deliberation of the TCC**

TCC noted in line with recommendation of 51<sup>st</sup> PCC and recommended for approval of RPC.

**Deliberation of the RPC**

The RPC noted and approved the recommendation of TCC.

**B.9 : REPLACEMENT OF OBSOLETE RTUs IN NERTS – POWERGRID**

Under ULDC phase1 project in NER, M/S Alstom Make S900 RTUs were installed in various stations of NER including POWERGRID stations during 2001 - 2003. List of POWERGRID stations is given below:

SN	Names of Stations	kV	Details of RTU
1	Badarpur	132	S900-GEC Alsthom
2	Jiribam	132	S900-GEC Alsthom
3	Aizawl	132	S900-GEC Alsthom
4	Kumarghat	132	S900-GEC Alsthom
5	Haflong	132	S900-GEC Alsthom
6	Khliehriat	132	S900-GEC Alsthom
7	Imphal	132	S900-GEC Alsthom
8	Nirjuli	132	S900-GEC Alsthom
9	Balipara	400	S900-GEC Alsthom
10	Salakati	220	C264-Areva, old CPU type
11	Bongaigaon	400	S900-GEC Alsthom
12	Misa	400	S900-GEC Alsthom
13	Dimapur	220	S900-GEC Alsthom
15	Ziro	132	There was no RTU installed in ULDC phase at Ziro Sub Station. However, POWERGRID installed Calliston – Nx RTU for Remote operation and Data Communication without any cost booking. Presently, remote operation is being carried out using RTUs installed under RTAMC project. However, for Data Purpose the existing obsolete Calliston – Nx RTU is frequently hanging and requires replacement.

Now, the S-900 RTUs of M/S Alstom has already become obsolete and there is no service support from OEM as well as availability of spares in market. POWERGRID is maintaining those RTUs departmentally till now but, all the spares got exhausted and the maintenance has become difficult.

As 15 Years has already been completed, it is proposed to replace all the above RTUs under PoC Mechanism. The financial implication for the same will be around Rs. 5.00 Crores which is inclusive of AMC for 7 (1+6 ) years where supply of requisite test tools, providing training, FRTU-Portable test RTU-2nos & minimum spare is also included.

The issue was deliberated in 148<sup>th</sup> OCC Meeting and the members agreed to the proposal of POWERGRID and recommended for approval of TCC / NERPC Members.

**Deliberation of the TCC**

TCC noted in line with recommendation of 148<sup>th</sup> OCC and recommended for approval of RPC.

**Deliberation of the RPC**

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

<b>B.10</b>	<b>: RECONDUCTORING OF 132KV KOPILI - KHANDONG LINE-1 (PGCIL) WITH HTLS CONDUCTOR INSTEAD OF ACSR PANTHER CONDUCTOR - 7<sup>th</sup> SCM &amp; 18<sup>th</sup> NERPC (Item No. C.5)</b>
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The transformation capacity at Kopili is being enhanced to 2x160 MVA, 220/132kV after installation of 2nd ICT which is under progress. However, there are two 132 kV circuits between Kopili and Khandong HEP. The Circuit # 2 is strung with ACSR Zebra conductor but, the Old Circuit # 1 is strung with ACSR Panther conductor. Thus capacity of Circuit # 1 will limit the evacuation of power between Kopili and Khandong in the event of outage of Circuit # 2. Thus, to have (N-1) compliance between Kopili and Khandong HEP, the existing ACSR Panther Conductor needs to be replaced with HTLS Panther equivalent conductor.

The issue was deliberated in 18<sup>th</sup> TCC and 18<sup>th</sup> NERPC Meeting and the members agreed and referred the issue to SCM. Subsequently, in 7<sup>th</sup> SCM, Members agreed for replacement of existing ACSR panther conductor of 132kVKopili – Khandong Line-1 by HTLS Conductor (ampacity equivalent to ACSR Zebra) and suitability up gradation of terminal equipment as per requirement.

### **Deliberation of the TCC**

Director, NERPC stated that minor Modification of approval will be sought from next 1<sup>st</sup> NERSCT for inclusion of strengthening of Khandong Bus with HTLS in Line upgradation package as the requirement has been raised out of enhancement of transmission capacity. The forum agreed to the modifications and sought approval of the 1<sup>st</sup> NERSCT and RPC.

### **Deliberation of the RPC**

The RPC noted and approved the recommendation of TCC.

<b>B.11</b>	<b>: MODIFICATIONS IN THE NERSS-II (PART B) AND NERSS - V SCHEMES – 7TH SCM &amp; 18TH NERPC (ITEM NO. C.7)</b>
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During 6<sup>th</sup> Standing Committee Meeting of NER & 36<sup>th</sup> Empowered Committee Meeting, the following elements have been approved under final Scope of NERSS-II (Part-B) and NERSS-V schemes:

#### **A. NERSS II (Part B)**

- (a) BiswanathChariyali (POWERGRID) – Itanagar 132kV D/c line.
- (b) 2 nos. 132kV line bays at Itanagar for termination of BiswanathChariyali (POWERGRID) – Itanagar 132kV D/c line.
- (c) LILO of one circuit of BiswanathChariyali (POWERGRID) – Itanagar 132kV D/c line at Gohpur (AEGCL)
- (d) Silchar (POWERGRID) – Misa (POWERGRID) 400kV D/c Line.

#### **B. NERSS -V**

- a. Establishment of 400/132kV, 2 X 315MVA S/s at Surajmaninagar
- b. Establishment of 400/132kV, 2 X 315MVA S/s at P.K. Bari
- c. Surajmaninagar – P.K. Bari 400kV D/C line
- d. 2 no. 400kV line bays at Palatana GBPP switchyard for termination of Palatana-Surajmaninagar 400kV D/c line
- e. AGTCCPP (NEEPCO) – P.K.Bari (TSECL) 132kV D/c line with high capacity HTLS conductor
- f. 2 no. 132 kV line bays at P.K. Bari (TSECL) S/s for termination of AGTCCPP (NEEPCO) – P.K. Bari (TSECL) 132kV D/c line.

Subsequently, the proposal was deliberated in 18<sup>th</sup> NERPC meeting, where the forum agreed in principle for following modifications/changes subject to deliberation and approval of SCM:

SN	Old Provision	Modifications / changes (approved in 37th ECM)
1	Establishment of 400/132kV, 2x315MVA transformer at Surajmaninagar substation	Establishment of 400/132kV, 7x105MVA Single Phase transformers (including one spare unit) at Surajmaninagar (ISTS) substation
2	Space for future 400kV line bays (including space for switchable line reactor): 4 no. at Surajmaninagar S/s	Space for future 400kV line bays (including space for switchable line reactor): 6 nos. at Surajmaninagar S/s (ISTS)
3	132kV Line bays: 4 no. [2 no. for Surajmaninagar (TSECL) - Surajmaninagar (TBCB) 132kV D/C high capacity / HTLS (equivalent of single moose) line and 2 no. for future line] Space for 132kV future line bays: 4 no.	132kV Line bays: 2 no. [for Surajmaninagar (TSECL) - Surajmaninagar (ISTS) 132kV D/C line [with high capacity / HTLS (equivalent of single moose)]] and Space for 132kV future line bays: 6 nos. at Surajmaninagar (ISTS)
4	Establishment of 400/132 kV, 2x315 MVA transformer at P.K.Bari substation	Establishment of 400/132kV, 7x105MVA single phase transformers (including one spare unit) at P.K.Bari (ISTS) substation
5	Space for future 400kV line bays (including space for switchable line reactor): 4 no. at P K Bari S/s	Space for future 400kV line bays (including space for switchable line reactor): 6 nos. at P K Bari substation (ISTS)
6	132kV Line bays: 2 no. [2 no. for P K Bari (TSECL) - P K Bari	132kV Line bays: 2 no. [for P K Bari (TSECL) - P K Bari (ISTS) 132kV D/C

SN	Old Provision	Modifications / changes (approved in 37th ECM)
	(TBCB) 132kV D/C high capacity/ HTLS (equivalent of single moose) line and 2 no. for future line] Space for 132kV future line bays: 4 no.	line [with high capacity / HTLS (equivalent of single moose)] and Space for 132kV future line bays: 6 nos.at P K Bari substation (ISTS)

During subsequent 7<sup>th</sup> SCM, members agreed for the above modification under NERSS-II (Part B) and NERSS-V schemes.

**Deliberation of the TCC**

AGM, TSECL informed that the substation under TBCB scope of M/s STERLITE (i)Surjamaninagar - Station not constructed at Surjamaninagar but rather at, East Noagaon-approx. 10km from Surjamninagar (Jirania Sub-division) (ii) likewise not PKBari but at- Masauli (8km away from PkBari). He requested the forum to rename the same as suggested.

TCC agreed to rename of the Sub-stations based on exact locations and referred to 1<sup>st</sup> NERSCT and RPC.

**Deliberation of the RPC**

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

B.12	:	ESTABLISHMENT OF ROING (ARUNACHAL PRADESH) - CHAPAKHOWA (ASSAM) 132KV S/C LINE ON D/C TOWERS - 7 <sup>th</sup> SCM
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During 7<sup>th</sup> SCM, CEA informed that Arunachal Pradesh had proposed for establishment of Rupai (Assam) – Namsai (Arunachal Pradesh) 132kV S/c line on D/C towers for reliability & redundancy. Rupai – Chapakhowa 132kV S/C line on D/C towers (approx. 35km) is already under implementation in Assam under NERPSIP (Tranche-1) scheme. Namsai substation in Arunachal Pradesh is constructed by POWERGRID as part of Palatana – Bongaigaon scheme.

Further, in the meeting held at CEA on 25.11.2016, it was agreed for implementation of Roing (Arunachal Pradesh) – Chapakhowa (Assam) 132kV S/C line on D/c tower instead of Rupai (Assam) – Namsai (Arunachal Pradesh) 132kV S/C line on D/C towers which passes through hilly terrains and there is no space for 132 kV bay at Rupai S/S and the matter would be taken up in the SCM for implementation as ISTS line.

NERLDC informed that there is constraint in loading of Tinsukia – Rupai 132kV line that is connected through AGBPP. Rupai S/s is further connected to Chapakhowa S/s.

Chief Engineer, DoP Arunachal Pradesh stated that Roing (Arunachal Pradesh) – Chapakhowa (Assam) 132kV S/C on D/C towers is required for improving the reliability of power supply to Arunachal Pradesh. In addition to this line, AGBPP – Namsai 220 kV link is also required for reliable power supply in Arunachal Pradesh.

Member Secretary, NERPC stated that Namsai is being fed from RHEP through long 132kV radial system viz. Ranganadi – Ziro – Daporijo – Along – Passighat - Roing - Tezu – Namsai and there is need for second connectivity with Namsai. Connectivity between AGBPP and Namsai would increase reliability of power supply in Arunachal Pradesh.

The representative of NEEPCO informed that the availability of space at AGBPP needs to be checked.

The representative of CTU stated that the long 132kV network of Arunachal Pradesh viz. Ranganadi – Ziro – Daporijo – Along – Pasighat – Roing – Tezu – Namsai – Miao – Jairampur – Changlang – Khonsa – Deomail – AGBPP would be fed from Ranganadi & Pare HEPs at one end and AGBPP at other end. Thus, providing an additional feed [i.e. Roing (Arunachal Pradesh) – Chapakhowa (Assam) 132kV S/c line on D/c towers] to this long 132kV network would improve the reliability of power supply to Arunachal Pradesh. The matter was also deliberated in the 18<sup>th</sup> TCC/NERPC meetings. The requirement of AGBPP – Namsai 220 kV link or other alternative proposals need to be studied in detail.

After detailed deliberation it is agreed in 7<sup>th</sup> SCM, implementation of Roing (Arunachal Pradesh) – Chapakhowa (Assam) 132kV S/C line on D/C tower as ISTS for system strengthening in NER.

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.

<b>B.13</b>	<b>: REVIEWING OF "TRANSMISSION SYSTEM FOR PHASE-1 GENERATION PROJECTS IN ARUNACHAL PRADESH" SCHEME - 7<sup>th</sup> SCM</b>
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During 7<sup>th</sup> SCM, following was agreed:

The "Transmission system for Phase-1 generation projects in Arunachal Pradesh" scheme shall stand modified as under:

- a. Establishment of 7x166 MVA, 400/220kV pooling station (GIS) at Dinchang in Arunachal Pradesh
- b. Dinchang - Rangia / Rowta Pooling station 400kV D/c line (with Quad Moose ACSR conductor)

**With Deletion of following works from the scheme:**

- a. Establishment of 2x500MVA, 400/220kV substation at Rangia / Rowta
- b. LILO of both ckts of Balipara - Bongaigaon 400kV D/c (ACSR Twin Moose) line at Rangia / Rowta Pooling station

The modified scope of "Transmission system for Phase-1 generation projects in Arunachal Pradesh" scheme shall be taken up for implementation only after confirmation of commissioning schedule of associated hydro project (s) in Arunachal Pradesh.

The following scope of work would be implemented by Assam as an intra-state scheme:

- a. Establishment of 2x500MVA, 400/220kV new GIS substation at Rangia / Rowta
- b. LILO of both circuits of Balipara - Bongaigaon 400kV D/c line (with Twin Moose ACSR conductor) at Rangia / Rowta Pooling station
- c. 420kV, 2x125MVAR bus reactors along with associated bays

- d. 6 no. of 220kV line bays for planned 220kV outlets (Rangia, Amingaon and Rowta 220kV D/c lines)
- e. Space provision for 6 no. of 220kV future line bays (for ISTS / Intra-state)
- f. Space provision for 8 no. of 400kV future line bays (including space for switchable line reactor) for ISTS lines terminating at this station
- g. Space provision for 400kV future line bays for state's own requirement may be finalized by Assam.

Space provision for future ISTS: 2x500MVA, 400/220kV transformer along with associated bays at 220kV and 400kV levels.

*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.*

<b>B.14</b>	<b>: STRENGTHENING OF TRANSMISSION SYSTEM IN ASSAM INCLUDING FORMATION OF SECOND 400KV NODE IN ER-NER CORRIDOR - 7th SCM</b>
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In the 5<sup>th</sup> SCM of NER, it was agreed that 2nd 400kV AC node in NER for interconnection with national grid is needed to address any eventuality at Bongaigaon S/s. Further, in the 6<sup>th</sup> SCM of NER, it was decided to build a new substation at Bornagar in Assam, with Bornagar (Assam, NER) – Parbotipur (Bangladesh) – Katihar (Bihar, ER) 765kV D/c line and back-to-back HVDC at Parbotipur. Bornagar S/s is required in Assam as second feed for interconnection with national grid. However, in the 14<sup>th</sup> JSC/JWG meetings held on 30<sup>th</sup> - 31<sup>st</sup> Jan 2018, it was decided that the NER-Bangladesh-ER interconnection may be re-examined considering the short-term and the long-term power transfer requirement as well as benefits of India and Bangladesh.

During 7<sup>th</sup> SCM, after detail deliberation, following were agreed to be implemented as an ISTS scheme:

- a. Construction of 400kVBornagar switching station
- b. LILO of Bongaigaon-Balipara 400kV D/C line (with Quad Moose ACSR conductor) at Bornagar
- c. Disconnection of Alipurduar – Bongaigaon 400kV D/C line (with Quad Moose ACSR conductor) from Bongaigaon end and termination of the same line at Bornagar S/s so as to form Alipurduar – Bornagar 400kV D/C line (with Quad Moose ACSR conductor)
- d. 2x125 MVAR, 420kV Bus Reactor at Bornagar

*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.*

<b>B.15</b>	<b>: INSTALLATION OF 80MVAR BUS REACTOR AT RANGANADI - 7TH SCM</b>
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As per the 5<sup>th</sup>& 6<sup>th</sup> SCM on Power System Planning for NER, it was decided to install 420kV, 80 MVAR bus reactor at Ranganadi with GIS bay. However, it could not be implemented due to high excavation costs and environmental issues. Further, as per OCC meeting of NERPC, 80MVAR Bus reactor is required at Ranganadi.

Representative of CTU stated that the NEEPCO may install the 420 kV, 80MVAR Bus reactor at Ranganadi with GIS bay. NEEPCO have to bear the cost of GIS bay & Reactor and the proposal for tariff revision may be submitted to CERC.

NEEPCO had informed that the commissioning of the 80MVAR bus reactors would require at least 3 to 4 years. Cost of installation of 80 MVAR Reactor is very high. Tariff of Ranganadi HEP will further increase after installation of 420kV, 80 MVAR bus Reactor with GIS bay.

Director (O&P), NERPC stated that cost of Reactor would be borne by the beneficiaries of the asset.

The representative of AEGCL informed that Assam is facing high voltage problem at 132kVGohpur substation, so installation of reactor is required to resolve overvoltage problem.

During 7<sup>th</sup> SCM, it was discussed that installation of 1x80MVAR, 420kV Bus Reactor at Ranganadi was agreed as a technical requirement. NEEPCO may recover the tariff from beneficiaries as per CERC regulations after installation of Reactors at Ranganadi. After detailed deliberations in 7<sup>th</sup> SCM, it was agreed to install 1x80MVAR, 400kV Bus reactor along with associated GIS Bay by NEEPCO at Ranganadi.

**Deliberation of the TCC**

NERLDC informed the forum that high voltage issues are persisting in RHEP and there is a need to install 420kV, 80 MVAR bus reactor at Ranganadi.

Director, NERPC stated that requirement of additional Reactive compensation at RHEP has arisen due to addition of transmission systems in Grid. He proposed that installation of 80MVAR Reactor at RHEP may be assigned to transmission utility to avoid unnecessary rise in Generation tariff which is directly going to affect NER States.

Members agreed in-principle and referred to 1<sup>st</sup> NERSCT and RPC for approval.

*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.*

<b>B.16</b>	<b>: 500MW HVDC BACK-TO-BACK STATION AT NORTH COMILLA (BANGLADESH) FOR TRANSFER OF POWER THROUGH SURJAMANINAGAR - NORTH COMILLA LINK - 7TH SCM</b>
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During 7<sup>th</sup> SCM, it was discussed that in the 13th JSC/JWG meetings on Indo-Bangladesh Cooperation in power sector held on 27-28th September 2017, it was decided to take up implementation of 500MW HVDC Back-to-Back terminal at North Comilla (Horindhora) and 400kV operation of Surjamaninagar – North Comilla link (presently operating at 132kV) to enhance the export of power from about 160MW to 500MW to Bangladesh.

Further, it was deliberated that for 400kV operation of the Surjamaninagar – North Comilla link, the line needs to be shifted from 132kV bus of Surajmaninagar (TSECL) 132kV S/s to 400kV bus of Surajmaninagar 400/132kV S/s (ISTS) being implemented under NERSS-V. This shall involve construction of additional line section at Surjamaninagar (ISTS) end and 2nos. of 400kV line bays at Surajmaninagar S/s (ISTS) for termination of Surajmaninagar – North Comilla 400 kV D/c line.

The representative of CTU informed that the commissioning of Surjamaninagar (India) – North Comilla (Bangladesh) 400kV D/C line in Indian Territory with back-to-back HVDC at North Comilla is expected by December 2020.

Members agreed for 400kV operation of Surjamaninagar (India) – North Comilla (Bangladesh) 400kV D/C line in the Indian Territory for export of power of the order of 500MW to Bangladesh with following scope of works:

- a. Operation of Surajmaninagar (TSECL) – North Comilla 400kV D/c line (presently operated at 132kV) at 400kV by terminating at 400kV Bus of \*Surajmaninagar S/s (ISTS) so as to form Surajmaninagar (ISTS) – North Comilla 400kV D/c line.
- b. 2 nos. 400kV line bays at \*Surajmaninagar S/S (ISTS) for termination of Surajmaninagar (ISTS) – North Comilla 400kV D/c line

*Note: \*Surajmaninagar 400/132kV ISTS S/s is being implemented under NERSS-V scheme through TBCB route: expected commissioning schedule as per RfP is July 2020.*

*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.*

<b>B.17</b>	<b>: MODIFICATION IN SCHEME - ADDITIONAL ±800KV HVDC CORRIDOR IN THE CHICKEN NECK AREA UNDER NORTH EAST - NORTHERN/WESTERN INTERCONNECTOR PROJECT - 7TH SCM</b>
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The representative of CTU stated that in view of huge hydro potential in NER, Sikkim and Bhutan, the construction of a high capacity HVDC line connecting NER with rest

of the Indian grid was envisaged along with provision of three additional corridors in the Chicken Neck area for future HVDC lines. In the 6<sup>th</sup> SCM of NER held on 03-10-2016, it was agreed to delete stringing and anti-theft charging of additional three HVDC lines in the chicken neck area. However, in order to avoid theft of tower members of the erected towers in the additional three HVDC corridors, tack welding up to cross arm level of towers was approved. POWERGRID informed that the foundation works on the entire corridor (i.e for three additional corridors) has been completed. However, tower erection at seven locations could not be completed due to stiff resistance from local people.

The representative of POWERGRID requested to delete the scope of tower erection at these seven locations in the chicken neck from the scope of works as the objective of blocking the corridor for HVDC lines has been achieved and the erection of towers at these seven locations in the chicken neck area would be taken up at the time of implementation of the HVDC lines in the corridors.

After detailed deliberations in 7<sup>th</sup> SCM, following were agreed:

- The erection of towers at seven locations in the chicken neck area would be deleted from the scope of works covered under “Additional  $\pm 800$ kV HVDC Corridor in the chicken neck area under North East – Northern/Western Interconnector Project” scheme.
- The erection of towers at these seven locations in the chicken neck area would be taken up at the time of implementation of the HVDC lines in these corridors.

*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.*

<b>B.18</b>	<b>: DOWNSTREAM SYSTEM DEVELOPMENT BY STUs FROM THE VARIOUS COMMISSIONED AND ON-GOING ISTS SUBSTATIONS – 7TH SCM</b>
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The downstream 220kV or 132kV system to be developed by ISTS licensee / STUs

from the various commissioned /on-going ISTS substations is as below:

SN	ISTS S/s	Trans. Cap	Voltage level (kV)	Total no. of Bays	Lines emanating from S/s	No. of circuit	Status of Lines	Remarks
1	BNC	400/132kV 2x200MVA	132	2 - Existing	BiswanathChariali-Pavoi	2	Existing	
				2 - to be awarded	BiswanathChariali - Itanagar	2	Under TBCB	NERSS-II Part-B (RfP Schedule Mar 2020)
2	Bongai gaon	400/220kV 1x315MVA+1x315MVA	220	2 - Awarded	Bongaigaon-Salakati	2	Under Const. by POWERGRID	NERSS-III (Exp. Comm. Sept 2018)
3	Surajmaninagar	400/132kV, 2x315MVA	132	2 - (RfP Schedule Jul 2020)	Surajmaninagar (TSECL) - Surajmaninagar (TBCB)	2	Tripura to update	NERSS-V
4	P. K. Bari	400/132kV, 2x315MVA	132	2 - (RfP Schedule Jul 2020)	P. K. Bari (TSECL) - P. K. Bari (TBCB)	2	Tripura to update	NERSS-V
5	New Mariani	400/220kV, 2x500MVA	220	2 - to be awarded	New Mariani - Mariani	2	Assam to update	NERSS-VI
6	New Kohima	400/220kV, 2x500MVA	220	2 - (RfP Schedule Jul 2020)	New Kohima (TBCB) - New Kohima (Nagaland)	2	Nagaland to update	NERSS-VI
7	Rangia	400/220kV, 2x500MVA	220	6 - Rangia S/s implementation is being reviewed	Rangia (TBCB) - Rangia (Assam)	2	Assam to update	Trans. Sys. for Phase-1 IPPs in Arunachal Pradesh
					Rangia (TBCB) - Amingaon (AEGCL)	2	Assam to update	
					Rangia (TBCB) - Rowta (AEGCL)	2	Assam to update	

- CTU stated that downstream intra-state system mentioned above should be ready in matching time frame and states of NER should expedite the works at their substation.
- Assam informed that the Mariani - New Mariani (POWERGRID) 220kV D/C line would be available in matching time frame of the substation upgradation.
- Further, it was informed that following bays has been modified in the previous

SCM and NERPC Meeting at different substation of NER as per the requisition of the states.

- a. 2 nos. of 132kV line bays at both Surajmaninagar and P.K. Bari S/s - **DELETED**
  - b. 2 nos. of additional 132kV line bays at both Surajmaninagar and P.K. Bari substations for future usage of TSECL - **PROVISION OF SPACE FOR 2 NOS. FUTURE BAYS.**
  - c. 2 nos. of 220kV bays at New Kohima 400/220 kV S/S - **DELETED**
  - d. 2 nos. of 220 kV future bays at New Kohima - **PROVISION OF SPACE FOR 2NOS. FUTURE BAYS.**
  - e. 220kV line bays from four to six on request of Assam at Rangia / Rowta400/220kV S/s - **ADDITION OF 2 NOS. 220KV BAYS**
  - f. 2 nos. of 220kV bays at Bongaigaon substation may be deleted (viz. from four to two bays) - **DELETED**
- Tripura stated that 400 kV S/S at Surajmaninagar (ISTS) would be at a distance of 10 KM from exiting Surajmaninagar S/S (TSECL) and 400 kV S/S at P.K. Bari (ISTS) would be at a distance of 8 km from existing P.K. Bari substation (TSECL). 400 kV substations at Surajmaninagar and P.K.Bari are being constructed by M/s Sterlite under NERSS-V through TBCB route. Due to shifting of location of substations, the length of 132kV links has increased. He stated that while finalizing the locations of 400 kV proposed substations, no interaction was made with TSECL by the Sterlite. Further, Tripura stated that it is very difficult to construct the 132 kV line from Surajmaninagar (ISTS) to Surajmaninagar (TSECL) and P.K.Bari (ISTS) to P.K.Bari (TSECL) without any financial assistance. Tripura cannot bear the additional financial burden to construct these lines due to shifting of locations of these substations. In Tripura, most of the transmission system as well as distribution system have been constructed only by Govt. of India funding or grant by some other agencies.
  - Member (PS) stated that for funding for these lines, Tripura may submit the proposal to MoP with intimation to CEA.
  - Representative from Nagaland was not present. The status of bays at New Kohima could not be discussed.

- CEA requested Member Secretary (NERPC) to take up the matter with Mizoram and other NER states for expediting the intra-state works so that the transmission assets created are effectively utilized.

After detailed deliberations in 7<sup>th</sup> SCM, following were agreed:

- a. NERPC will take up the matter in respect of commissioning and operation of Sihhmui S/s of Mizoram.
  - b. Mariani-New Mariani (POWERGRID) 220kV D/c line would be available in matching time frame of the substation upgradation.
  - c. Following bays would be modified at different substation of NER as per the requisition of the states.
  - d. 2 nos. of 132kV line bays at both Surajmaninagar and P.K. Bari S/s – **DELETED**
  - e. 2 nos. of additional 132kV line bays at both Surajmaninagar and P.K. Bari substations for future usage of TSECL - **PROVISION OF SPACE FOR 2 NOS. FUTURE BAYS**
  - f. 2 nos. of 220kV bays at New Kohima 400/220 kV S/S - **DELETED**
  - g. 2 nos. of 220 kV future bays at New Kohima - **PROVISION OF SPACE FOR 2 NOS.FUTURE BAYS**
  - h. 220kV line bays from four to six on request of Assam at Rangia / Rowta 400/220kV S/s - **ADDITION OF 2NOS. 220KV BAYS**
  - i. 2 nos. of 220kV bays at Bongaigaon substation may be deleted (viz. from four to two bays) - **DELETED**
- Matter regarding construction of 132 kV D/c lines from Surajmaninagar (ISTS) to Surajmaninagar (TSECL) and P.K.Bari (ISTS) to P.K.Bari (TSECL) would be discussed in CEA.

Based on the above discussion, the downstream table is updated as follows:

SN	ISTS S/s	Voltage ratio, Trans. Cap	Voltage level (kV)	Total no. of Bays	Lines emanating from S/s	No. of circuit	Status of Lines	Remarks
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SN	ISTS S/s	Voltage ratio, Trans. Cap	Voltage level (kV)	Total no. of Bays	Lines emanating from S/s	No. of circuit	Status of Lines	Remarks
1	Biswanath Chariali	400/132k V, 2x200MVA	132	2 - Existing	Biswanath Chariali - Pavo	2	Existing	
				2 - to be awarded	Biswanath Chariali - Itanagar	2	Under TBCB	NERSS-II Part-B (RfP Schedule Mar 2020)
2	Bongaigaon	400/220k V, 1x315MVA +1x315MVA	220	2 - Awarded	Bongaigaon - Salakati	2	Under Const. by POWERGRID	NERSS-III (Exp. Comm. Sept 2018)
3	Surajmaninagar	400/132k V, 2x315MVA	132	2 - (RfP Schedule Jul 2020)	Surajmaninagar (TSECL) - Surajmaninagar (TBCB)	2	Matter to be discussed in CEA meeting	NERSS-V
4	P. K. Bari	400/132k V, 2x315MVA	132	2 - (RfP Schedule Jul 2020)	P. K. Bari (TSECL) - P. K. Bari (TBCB)	2		NERSS-V
5	New Mariani	400/220k V, 2x500MVA	220	2 - to be awarded	New Mariani - Mariani	2	AEGCL to implement in matching timeframe	NERSS-VI
6	New Kohima	400/220k V, 2x500MVA	220	2 - (RfP Schedule Jul 2020)	New Kohima (TBCB) - New Kohima (Nagaland)	2	Nagaland to update	NERSS-VI

Note: Rangia 400/220kV S/s would be implemented by AEGCL (Assam) as an intra-state 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.

**B.19 : NORTH EAST – NORTHERN / WESTERN INTERCONNECTOR - I  
PROJECT – 7TH SCM**

During 7<sup>th</sup> SCM, the representative of POWERGRID stated that keeping in view the hydro potential in NER, Sikkim & Bhutan, the construction of Lower Subansiri (2000MW) and Kameng (600MW) hydro projects in NER and availability of surplus power in NER,  $\pm 800$ kV Biswanath Chariyali – Agra HVDC Bipole line along with other AC system was planned as part of the subject project.

For implementation purpose, the scheme was divided into three parts. However, single investment approval from POWERGRID's Board of Directors was taken for the complete scheme as per the following scope of works.

**Part-A: North East – Northern / Western Interconnector – I**

- a. Biswanath Chariyali – Agra  $\pm 800$ kV, 6000MW HVDC bipole line

(This includes 22km of four (4) nos. of corridors with  $\pm 800$ kV HVDC towers in the chicken neck area. Two of the corridors would be utilised by stringing of the Biswanath Chariyali – Agra HVDC bipole line (one pole in each corridor) while the other two corridors would be strung with single panther conductor per corridor charged at 132kV. Further, this would include Earth Electrode line of 50km length at Biswanath Chariyali end and of 40km length at Agra end.)

- b. Balipara – Biswanath Chariyali 400kV D/c line
- c. LILO of Ranganadi – Balipara 400kV D/c line at Biswanath Chariyali (the existing 2x50MVA line reactors at Balipara end to be made switchable after LILO)
- d. Biswanath Chariyali – Biswanath Chariyali (AEGCL) 132kV D/c line
- e. Establishment of 400/132kV Pooling Station at Biswanath Chariyali with 2x200MVA, 400/132/33 kV transformers alongwith associated line bays
- f. HVDC rectifier module of 3000MW at Biswanath Chariyali and inverter module of 3000MW capacity at Agra
- g. Augmentation of 400kV Agra substation by 1x315MVA (4x105MVA), 400/220/33kV transformer alongwith associated bays
- h. Extension of 400kV line bays at Balipara substation

- i. Extension of 132kV line bays at BiswanathChariyali (AEGCL) substation
- j. 420kV, 2x80MVAR bus reactor at BiswanathChariyali
- k. 420kV, 1x80MVAR bus reactor at Bongaigaon

**Part-B: Transmission System for immediate evacuation of power from Kameng HEP**

- a. Kameng – Balipara 400kV D/c line
- b. Balipara – Bongaigaon 400kV D/c line (Quad conductor) with 30% Fixed Series Compensation (FSC) at Balipara end
- c. 400/220kV, 315MVA 2nd ICT at Misa
- d. Extension of 400kV line bays at Bongaigaon and Balipara substations
- e. 420kV, 1x80MVAR bus reactor at Balipara
- f. 1x63MVAR fixed line reactor at both ends on each circuits of Balipara – Bongaigaon 400kV D/c line (total 4 no. of reactors)

**Part-C: Transmission System for immediate evacuation of power from Lower Subansiri HEP**

- a. Lower Subansiri – BiswanathChariyali (Pooling Point) 400kV 2xD/c line with twin lapwing conductor
- b. Extension of 400kV line bays at BiswanathChariyali Pooling Substation
- c. 1x63MVAR switchable line reactor at BiswanathChariyali end on each circuits of Lower Subansiri – BiswanathChariyali 400kV 2xD/c line (total 4 no. of reactors)

All the elements of **Part-A** and **Part-B**, have been commissioned. **Part-C** inter alia includes immediate evacuation line for Lower Subansiri HEP (2000MW) of NHPC viz. LowerSubansiri – BiswanathChariyali 400kV 2x D/C line with twin lapwing conductor. The LowerSubansiri HEP is delayed and completion of hydro project would take 4 years from restart of works. The transmission line scheme is being short closed on account of uncertainty in implementation of the associated generation project.

The Lower Subansiri – BiswanathChariyali lines were planned along with 4x63MVAR line reactors at BiswanathChariyali end. In order to control high voltage in the NER grid under off-peak or low hydro scenarios, out of four 63MVAR line reactors at BiswanathChariyali, two reactors were approved to be installed as bus reactors at BiswanathChariyali S/s itself in the 6th SCM of NER held on 03-10-2016. The said 2x63MVAR reactors have been commissioned as bus reactors.

In the 6th SCM of NER held on 03-10-2016, it was agreed to delete stringing and anti-theft charging of additional three HVDC lines in the chicken neck area. However, in order to avoid theft of tower members of the erected towers in the additional three HVDC corridors, tack welding up to cross arm level of towers was approved.

In the 33rd and 34th SCM of NR held on 23-12-2013 and 08-08-2014 respectively it has been approved to replace the 50MVAR line reactors at Agra end of Agra – Sikar 400kV D/c line with 80MVAR line reactors as part of North East – Northern / Western Interconnector-I Project. The same has been commissioned.

In view of the above, POWERGRID requested that Part-C of the project except the 2x63MVAR switchable line reactors (installed as bus reactor) at BiswanathChariyali may be delinked from the main scheme and may be taken up as an independent scheme as "Transmission System for immediate evacuation of power from Lower Subansiri HEP".

Director (PSPA-2) stated that POWERGRID has requested for the revised name and following scope of works of two schemes:

**(a) NORTH EAST – NORTHERN / WESTERN INTERCONNECTOR-I PROJECT**

**(i) Part-A: North East – Northern / Western Interconnector – I**

(i) BiswanathChariyali – Agra  $\pm 800$ kV, 6000MW HVDC bipole line

\*(This includes 22km of four (4) nos. of corridors with  $\pm 800$ kV HVDC towers in the chicken neck area. One corridor is to be utilised by the above HVDC bipole line. In the other three corridors, tack-welding upto cross-arm level of towers needs to be carried out to avoid theft of tower members. Further, this would include Earth Electrode line of 50km length at BiswanathChariyali end and of 40km length at Agra end.)

(ii) Balipara – BiswanathChariyali 400kV D/c line

(iii) LILO of Ranganadi – Balipara 400kV D/c line at BiswanathChariyali (the existing 2x50MVAR line reactors at Balipara end to be made switchable after LILO)

(iv) BiswanathChariyali – BiswanathChariyali (AEGCL) 132kV D/c line

(v) Establishment of 400/132kV Pooling Station at BiswanathChariyali with 2x200MVA, 400/132/33 kV transformers alongwith associated line bays

- (vi) HVDC rectifier module of 3000MW at BiswanathChariyali and inverter module of 3000MW capacity at Agra
- (vii) Augmentation of 400kV Agra substation by 1x315MVA (4x105MVA), 400/220/33kV transformer alongwith associated bays
- (viii) Extension of 400kV line bays at Balipara substation
- (ix) Extension of 132kV line bays at BiswanathChariyali (AEGCL) substation
- (x) 420kV, 2x80MVA bus reactor at BiswanathChariyali
- (xi) 420kV, 1x80MVA bus reactor at Bongaigaon

**(ii) Part-B: Transmission System for immediate evacuation of power from Kameng HEP**

- (i) Kameng – Balipara 400kV D/c line
- (ii) Balipara – Bongaigaon 400kV D/c line (Quad conductor) with 30% Fixed Series Compensation (FSC) at Balipara end
- (iii) 400/220kV, 315MVA 2nd ICT at Misa
- (iv) Extension of 400kV line bays at Bongaigaon and Balipara substations
- (v) 420kV, 1x80MVA bus reactor at Balipara
- (vi) 1x63MVA fixed line reactor at both ends on each circuits of Balipara – Bongaigaon 400kV D/c line (total 4 no. of reactors)
- (vii) Installation of 2x63MVA switchable line reactor of BiswanathChariyali end of Lower Subansiri – BiswanathChariyali 400kV 2xD/c line as bus reactor at BiswanathChariyali S/s
- (viii) Replacement of 50MVA line reactors at Agra end of Agra – Sikar 400kV D/c line with 80MVA line reactors (total 2 reactors)

**(b) TRANSMISSION SYSTEM FOR IMMEDIATE EVACUATION OF POWER FROM LOWER SUBANSIRI HEP**

- (i) Lower Subansiri – BiswanathChariyali (Pooling Point) 400kV 2xD/c line with twin lapwing conductor
- (ii) Extension of 400kV line bays at BiswanathChariyali Pooling Substation
- (iii) Installation of new 1x63MVA switchable line reactor at BiswanathChariyali end on each circuits of Lower Subansiri – BiswanathChariyali 400kV 1st D/c line.

- (iv) The existing 2x63MVAr switchable line reactors installed as bus reactors at BiswanathChariyali end (under the North East – Northern / Western Interconnector-I Project) are to be reinstalled as switchable line reactors in the Lower Subansiri – BiswanathChariyali 400kV 2nd D/c line.

During 7<sup>th</sup> SCM, members agreed for above revised name and scope of works of two schemes as mentioned at (a) and (b).

*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.*

<b>B.20</b>	<b>: IMPLEMENTATION OF ADDITIONAL 132 KV TRANSMISSION SYSTEM PROPOSED BY ARUNACHAL PRADESH UNDER COMPREHENSIVE SCHEME OF ARUNACHAL PRADESH – 7TH SCM</b>
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During 7<sup>th</sup> SCM, it was stated that the following additional proposal of Ar. Pradesh for implementation under Comprehensive Scheme of Arunachal Pradesh had been discussed and agreed in the meeting held in CEA on 05.12.2017 under the Chairmanship of Member (Power System).

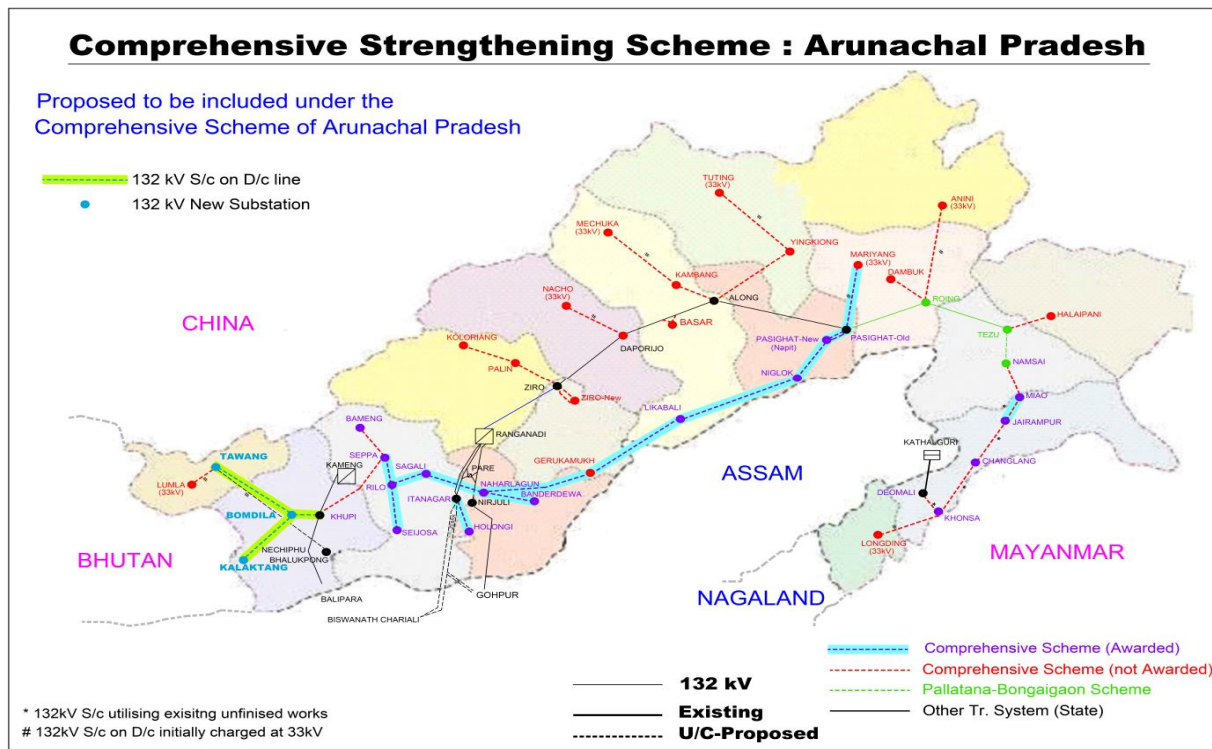
- (i) Khupi – Bomdila – Tawang 132kV S/c line on D/c tower alongwith 7x5MVA 132/33kV S/s each at Bomdila&Tawang
- (ii) Bomdila – Kalaktang 132kV S/c line on D/c tower alongwith 4x5MVA 132/33kV S/s at Kalaktang

It was agreed that the matter would be taken up with MoP for approval and inclusion of the above works in the ongoing Comprehensive Scheme of Ar. Pradesh.

In 7<sup>th</sup> SCM, members agreed for implementation of following additional 132 kV scheme under the on-going Comprehensive Scheme of Arunachal Pradesh:

- (i) Khupi – Bomdila – Tawang 132kV S/c line on D/c towers alongwith 7x5MVA, 132/33kV substation each at Bomdila&Tawang

- (ii) Bomdila – Kalaktang 132kV S/c line on D/c towers along with 4x5MVA 132/33kV S/s at Kalaktang



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.

<b>B.21</b>	<b>:</b>	<b>SHIFTING PDC SYSTEM FROM SLDC ARUNACHAL PRADESH TO SLDC TRIPURA DUE TO SPACE CONSTRAINT AT SLDC AP AT CHIMPU SS – POWERGRID</b>
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Due to space constraints in present SLDC of Arunachal Pradesh at Chimpu Substation, PDC installation could not be done under URTDSM Phase1. Accordingly, during 149<sup>th</sup> OCCM, members decided for shifting the PDC to SLDC Tripura.

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.

B.22	:	ENHANCEMENT OF TRANSFORMATION CAPACITY FROM 2X315 MVA 400/220KV TO 2X500MVA 400/220KV FOR ESTABLISHMENT OF 400/220KV SONAPUR GSS IN EASTERN PART OF GUWAHATI TO BE IMPLEMENTED BY AEGCL AS AN INTRA-STATE SCHEME - AEGCL
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During 5<sup>th</sup> SCM & subsequent NERPC, the proposal of AEGCL for establishment of 2X315 MVA, 400/220KV GSS at Sonapur was approved. However, CEA has recently advised AEGCL to enhance the transformation capacity from 2X 315 MVA to 2X 500 MVA.

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.

**CATEGORY – C : COMMERCIAL ISSUES**

**ITEM NO. C.01 : DEFAULT IN PAYMENT OF OUTSTANDING DUES BY BENEFICIARIES – POWERGRID**

The details of outstanding dues for more than 60 days as on 16.11.2018 in respect of defaulting beneficiaries of POWERGRID are as under (Figures in INR Crores):

SN	NAME OF THE DIC	60-90 DAYS	>90 DAYS	TOTAL
1	Manipur	3.54	2.98	6.52
2	Meghalaya	2.78	14.48	17.26
3	TSECL	0.00	1.43	1.43
	TOTAL	6.32	18.89	25.21

The concerned utilities may liquidate the outstanding dues on priority.

**Deliberation of the TCC**

Forum requested all concerned utilities to clear the outstanding dues at the earliest.

All constituents agreed to clear the same soon.

*The TCC noted as above.*

**Deliberation of the RPC**

*The RPC noted as above.*

**ITEM NO. C.02 : OPENING OF LETTER OF CREDIT – POWERGRID**

Details of DICs with deficient LC is given in the below table. DICs are requested to enhance the LC to required amount expeditiously.

SN	DIC NAME	LC		Remarks
		REQUIRED	AVAILABLE	
1	Manipur	4.31	2.37	LC extension for 1 year and enhancement by an amount of ` 1.94 Cr is required to be done by DIC

2	Tripura	3.79	3.25	LC enhancement by an amount of Rs. 0.54 Cr is required to be done by DIC
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Forum requested all concerned utilities to enhance the LC at the earliest.

**Deliberation of the TCC**

All constituents agreed to clear the same soon.

*The TCC noted as above.*

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. C.03</b>	<b>:</b>	<b>LIQUIDATION OF OUTSTANDING BY MEECL - NTPC</b>
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An outstanding due more than 60 days as on 19.11.2018 is Rs 204.56 Crore.

SN	Beneficiaries	Total Outstanding in Cr.	Outstanding more than 60 days
1	MeECL, Meghalaya	226.86	204.56
<b>Total =</b>		<b>226.86</b>	<b>204.56</b>

Forum requested Meghalaya to liquidate the outstanding dues at the earliest.

**Deliberation of the TCC**

*The TCC noted as above and place to RPC.*

**Deliberation of the RPC**

Chairman, NERPC & Hon'ble Power Minister, Meghalaya stated that efforts are being made by Govt. of Meghalaya to clear the outstanding dues to all the utilities. He requested them to bear with Meghalaya for the time being as the matter is being taken up on top priority by Govt. of Meghalaya.

*The RPC noted as above.*

<b>ITEM NO. C.04</b>	<b>:</b>	<b>OPENING OF LETTER OF CREDIT - NTPC</b>
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Following beneficiaries have not yet opened the LC of required amounts after commercial operation of BgTPP U#2.

SN	Beneficiaries	LC Required As per PPA (Cr.)	Remarks
1	MeECL, Meghalaya	8.75	Not yet opened
2	DoP, Arunachal Pradesh	8.79	LC opened for Rs 4.01 Crs. LC to be enhanced.
3	MSPDCL, Manipur	7.95	Not yet opened
4	TSECL, Tripura	11.08	Not yet opened

MeECL, DoP Arunachal, MSPDCL, TSECL is requested to open the LC of requisite value.

**Deliberation of the TCC**

Forum requested all concerned utilities to open/enhance the LC at the earliest.

All constituents agreed to enhance the same soon.

*The TCC noted as above.*

**Deliberation of the RPC**

*The RPC noted as above.*

ITEM NO. C.06	:	PENDING PAYMENTS – NHPC
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**Power & Electricity Department, Govt of Mizoram**

An amount of Rs. 2.20 Crs is due for payment from Mizoram for current bill of June'2018. Govt. of Mizoram is requested to liquidate the amount at the earliest to avoid late payment surcharge.

**Deliberation of the TCC**

Since no representative from Mizoram was present due to Assembly Election in the State, forum requested NERPC to take up the matter with P&E Dept., Mizoram.

*The TCC noted as above.*

**Deliberation of the RPC**

*The RPC noted as above.*

**ITEM NO. C.07 : RECONCILIATION OF ENERGY ACCOUNT – NHPC**

**Manipur State Power Distribution Co. Limited**

Reconciliation of Energy Account is pending since Jan'18 to June'18 i.e. quarter 4th (2017-2018) & quarter 1st (2018-2019).

**Deliberation of the TCC**

The forum requested NHPC to resolve the matter with MSPCL bilaterally.

*The TCC noted as above.*

**Deliberation of the RPC**

*The RPC noted as above.*

**ITEM NO. C.08 : OUTSTANDING DUES OF REGULATORY ACCOUNTS – NERLDC**

**(a) DSM CHARGE OUTSTANDING**

From the DSM Outstanding Status, it can be seen that Ar. Pradesh (₹ 3.28 Crores) and Assam (Rs. 1.99 Crores) are major defaulters.

Ar. Pradesh has outstanding of (Rs. 1.90 Crores) more than 13 weeks (90 days).

**Deliberation of the TCC**

Ar. Pradesh has agreed to clear the outstanding dues soon.

*The TCC noted as above.*

**Deliberation of the RPC**

*The RPC noted as above.*

**(b) REACTIVE CHARGE OUTSTANDING**

From Reactive Outstanding Status, it can be seen that Ar. Pradesh (Rs. 24.46 Lakhs), Assam (Rs. 35.77 Lakhs), Manipur (Rs. 4.75 Lakhs) & Mizoram (Rs. 9.74 Lakhs) are defaulters.

CERC in order dated 02.09.2015 in Petition No: 142/MP/2012 with I.A. 7/2013 has stipulated denial of Open Access in case of default in payment of UI/deviation charges, transmission charges, reactive energy charges, congestion charges and RLDC fees and charges for more than 90 days.

**Deliberation of the TCC**

Forum requested all concerned utilities to clear the outstanding dues at the earliest.

All constituents agreed to clear the same soon.

*The TCC noted as above.*

**Deliberation of the RPC**

*The RPC noted as above.*

**ITEM NO. C.09 : REIMBURSEMENT OF TAXES – NERPSIP**

As per MoU, state portion taxes including State Tax / GST to be reimbursed by Govt. / State Utility to POWERGRID. Accordingly, claims have been submitted up to September'18 amounting to Rs. 54.67 Cr as detailed below. Reimbursement to be expedited.

SN	State	Claim Submitted Rs. in Cr
1	Assam*	APDCL : Rs.5.55 Cr. AEGCL : Rs.4.21 Cr.
2	Meghalaya	MePDCL : Rs.3.50 Cr. MePTCL : Rs.3.60 Cr.
3	Tripura	TSECL : Rs.10.33 Cr.
4	Manipur	MSPCL : Rs.2.76 Cr.
5	Nagaland	DoP : Rs.1.28 Cr.
6	Mizoram	P&E : Rs.0.39 Cr.
7	Ar. Pradesh	DoP : Rs.23.05 Cr.
<b>Total</b>		<b>Rs.54.67 Cr.</b>

\*Assam (AEGCL) has reimbursed Rs.0.81 Cr. so far.

**Deliberation of the TCC**

Forum requested all concerned States to do the necessary action at the earliest.

All constituents agreed to comply the same soon.

*The TCC noted as above.*

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. C.10</b>	<b>:</b>	<b>SIGNING OF PPA FOR 600 MW KAMENG HYDRO ELECTRIC PROJECT (KAHEP) - NEEPCO</b>
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Kameng HEP (600 MW) to be owned and operated by NEEPCO is scheduled to be commissioned by March 2019. Allocation of power from KaHEP has been made by the Ministry of Power, Govt. of India vide letter No. 11/1/2002-DO (NHPC) dated 14.07.2009.

Draft PPAs were sent to all the beneficiaries of the project of NE region; However, Mizoram and Manipur are yet to convey any decision regarding signing of said PPA. Therefore, it is requested to the Electricity Department of Mizoram and MSPDCL of Manipur through this forum to sign the PPA as per allocated share of Kameng HEP.

The allocation to Mizoram and Manipur are detailed below for appraisal of the house.

SN	Name of Beneficiary	% Allocation	MW Allocation (out of 138 MW)
1	Mizoram	6.34	9.00
2	Manipur	9.86	14.00

**Deliberation of the TCC**

No update from Mizoram due to their absence. Manipur stated that the matter is being reviewed by the Government and the same will be communicated soon.

Forum requested all concerned States to spell out clearly at the earliest whether they want to sign the PPA, so that NEEPCO can do the necessary action further.

Manipur agreed to revert back soon.

*The TCC noted as above.*

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. C.11</b>	<b>:</b>	<b>NON-RECEIPT OF PAYMENT FROM MEPDCL, MEGHALAYA- NEEPCO</b>
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Outstanding dues of MePDCL, Meghalaya payable to NEEPCO as on 12.11.2018 are as follows:

Beneficiary	Principal (• in crore)	Late Payment Surcharge accumulated till 31.08.2018 (• in crore)	Total (• in crore)
MePDCL, Meghalaya	305.88	245.22	551.10

Due to accrual of such outstanding dues, NEEPCO is facing acute financial crunch to meet its day to day expenditure including fuel cost required for operating its thermal power stations.

The above is for deliberation of the house, with a request to MePDCL, Meghalaya, to appraise the house on their action plan for early settlement of the said dues

**Deliberation of the TCC**

*The TCC noted as above and place to RPC.*

**Deliberation of the RPC**

Chairman, NERPC & Hon'ble Power Minister, Meghalaya thanked NEEPCO for the patience and generosity and once again stated that efforts are being made by Govt. of Meghalaya to clear the outstanding dues to all the utilities. He requested them to bear with Meghalaya for the time being as the matter is being taken up on top priority by Govt. of Meghalaya.

*The RPC noted as above.*

**ITEM NO. C.12 : PENDING PAYMENTS – OTPC**

The current total outstanding dues of OTPC against the NER beneficiary states (as on 12-11-2018) are as under:

(Amount in Rs Crores)

SN	Beneficiary	Outstanding Dues (>60 Days)	Total Outstanding
1	Arunachal Pradesh	0.00	4.25
2	Assam	0.00	23.71
3	Manipur	12.35	25.04
4	Meghalaya	62.16 (including Supplementary Bill)	87.16 (including Supplementary Bill)

5	Mizoram	0.00	0.73
6	Nagaland	0.00	0.00
7	Tripura	0.00	25.22
	<b>Total</b>	<b>74.51</b>	<b>166.12</b>

The total outstanding dues as on 12-11-2018 are Rs 166.12 Crores out of which outstanding beyond 60 days is Rs 74.51Crores. While the outstanding dues for other beneficiaries are regular monthly bills, for Meghalaya the dues have accumulated to alarming levels. The auditors have been regularly reflecting the issue of outstanding dues and absence of LC from Meghalaya as a special concern in our Board Meetings. Constituents, especially Meghalaya, are hence requested to clear at least the outstanding dues over 60 days, at the earliest. The forum is requested to impress the urgency of the issue upon Meghalaya.

**A. Status of Payment Security Mechanism of the beneficiaries required against monthly energy billing as per Power Purchase Agreement and CERC regulations - OTPC**

SN	Beneficiary	Letter of Credit (LC) required as per PPA (Rs Crore)	LC amount status (Rs Crore)	Valid Upto	Remarks
1	Arunachal Pradesh	11.62	11.62	08-Oct-2019	LC is in place
2	Assam	40	40	28-Apr-2019	LC is in place
3	Manipur	15.02	3.7	16-Oct-2018	Kindly renew the LC
4	Meghalaya	29.78	-	-	Meghalaya has never provided the LC even after continuous persuasion

5	Mizoram	7.5	7.5	6-May-2019	LC is in place
6	Nagaland	9.46	9.46	20-Mar-2019	LC is in place
7	Tripura	46.53	18	19-Mar-2019	LC is in place. However, Tripura is requested to enhance the LC in line with the requirements of the PPA.

Beneficiaries are requested to enhance and renew the LC amount as per the PPA at the earliest.

**Deliberation of the TCC**

Forum requested all concerned States to do the necessary action at the earliest.

All constituents agreed to comply the same soon.

*The TCC noted as above.*

**Deliberation of the RPC**

*The RPC noted as above.*

**CATEGORY – D : ITEMS FOR INFORMATION**

**ITEM NO. D.01 : EARLY COMPLETION OF OPGW BASED COMMUNICATION SYSTEM IN INTRASTATE GRID OF MANIPUR IN THE INTEREST OF NER GRID SECURITY AND SMOOTH POWER SUPPLY MANAGEMENT IN MANIPUR - MSPCL**

SLDC Manipur located at Yurembam was established by Power Grid with 11 nos. of RTUs in 132 kV sub-stations – nine for State sector and 2 for Central sector. Even long after the starting of commercial operation of the SLDC on 9/11/2016 it is currently operating with data acquired from few sub-stations through PLCC links only. It is not serving the purpose of the establishment of SLDC for real time scheduling and dispatch of electricity in the intra-state system for ensuring grid security.

Currently, the main control center at Yurembam is unable to acquire voice connectivity and SCADA from the nodes at the 11 nos. of 132 kV sub-stations because of the absence of OPGW connectivity and installation of communication equipment.

During the 15<sup>th</sup> TCC & 15<sup>th</sup> NERPC Meeting held on the 20<sup>th</sup> and 21<sup>st</sup> of August, 2015 at Guwahati, the TCC recommended the revision of OPGW connectivity for Manipur from 149 Km to 365 Km. RPC noted and approved it. The investment is to be recovered as per tariff determined by CERC.

Altogether PGCIL is implementing the work for the installation of 385 Km. of OPGW including 20 Km for LI-LO on Kongba – Kakching at Thoubal under Quantity Variation Clause as deliberated in the 17<sup>th</sup> TCC Meeting held on the 4<sup>th</sup> of October, 2016 at Imphal and noted by RPC.

MSPCL has taken up integration of 400 kV sub-station and the remaining 132 kV sub-stations into SLDC Manipur with 5 nos of RTUs and 206 km of OPGW under PSDF funding. This has been incorporated in the scope of “Reliable Communication & Data Acquisition System upto 132 kV Sub-Stations in Manipur (NER)” initiated by the Government of India.

During the 18th TCC Meeting held on the 10th of October at State Convention Centre, Shillong POWERGRID informed that materials have been inspected at China and would be delivered by end of Nov'17. GM, NERTS informed that the target for completion as per 6th NETeST meeting of NERPC is November, 2018. However, not much progress has been made till date.

PGCIL is therefore requested once again to pay special attention and place the latest status of the work including timeline for completion before the board for deliberation. TCC may kindly deliberate the request of MSPCL in the interest of NER Grid Security and smooth power supply management in Manipur and may advise PGCIL to complete the installation of OPGW at the earliest.

### **Deliberation of the TCC**

Total OPGW scope of Manipur is 375.626 Km which is available at site. Stringing is yet to be started. As per latest meeting held with M/s TCIL, erection is planned from 30.11.2018. The work has been awarded to M/s TCIL (LoA: NESH/CSM/628/LOA/377 dtd 16.01.2017). M/s TCIL has raised the issue of difficulty in gang mobilization due to law and order in Manipur. The details are below:

### **NER FO Expansion Project - Manipur**

SN	Link Name	OPGW Route Length (Km)	OPGW Erection status (Km)	Terminal Equipment considered in NER FO Expansion Project	Completion Target
1	132kV Loktak(NHPC) ~ Ningthoukhong (S)	11	0	Equipment for the connectivity of all the nodes is supplied. Only Auxilliary Power Supply part pending-target date:Feb 19	July-19
2	132kV Imphal(State) ~ Karong	60	0		July-19
3	132kV Yurembam ~ Yaingangpokpi	42	0		July-19
4	132kV Yaingangpokpi ~ Kongba	32	0		July-19
5	132kV Kongba ~ Kakching	55.626	0		July-19
6	132kV Kakching ~ Churachandpur	38	0		July-19
7	132kV Yaingangpokpi ~ Hundung	32	0		July-19
8	132kV Kakching ~ Chandel	25	0		July-19
9	132kV Loktak(NHPC) ~ Rengpang	47	0		July-19
10	132kV Jiribam ~ Jiribam state	1	0		July-19
11	132kV Ningthoukhong ~ Churachandpur	32	0		July-19

**Total = 375.626 0**

*The above target is given considering resolution of all ROW issues in time and also no hurdle in respect of Law and Order situation.*

MD, MSPCL informed that there is duplication of some links in the NERPSIP and various ULDC related OPGW Projects for Manipur. ED(LD&C), POWERGRID stated that the scope of OPGW under ULDC schemes may not be changed as all materials have been delivered at site. TCC agreed and requested that issue may be referred to CEA for revision for necessary modification of NERPSIP scope.

***TCC noted as above.***

***This is for information to RPC.***

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.02</b>	<b>: NO SLIPPAGE OF TIME IN (I) THE COMPLETION OF UPGRADATION OF 2X50 MVA, 132/33KV SUBSTATION AT IMPHAL (PG) TO 400/132KV, 7X105MVA SINGLE PHASE TRANSFORMER AND (II) CONSTRUCTION OF 2 NOS. 400 KV GIS LINE BAYS AT 400/132 KV SILCHAR SUB-STATION FOR TERMINATION OF SILCHAR - IMPHAL (PG) 400 KV D/C LINE - MSPCL</b>
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Construction of 3x105 MVA, 400/132 kV Sub-Station at Thoubal in Manipur is nearing its completion and ready for commissioning. The associated 400 kV D/C line from Imphal (PG) to Thoubal is also complete except for two spans which could not be completed on time because of the unprecedented delay in settling of ROW issues and payment of compensation. Work for the two incomplete spans is now going on in full swing. MSPCL is targeting to inaugurate the 400 kV sub-station in December, 2018 when the line is expected to be completed.

Commissioning of this 400 kV sub-station depends on the completion of the upgradation of 2x50 MVA, 132/33 KV Sub-Station at Imphal (PG) to 400/132 KV, 7x105 MVA single phase units (including one spare single-phase unit) and construction of 2 nos. 400 kV GIS line bays at 400/132 kV Sub-Station, Silchar.

During the 18th TCC Meeting held on the 10th of October, 2017 at State Convention Centre, Shillong it was intimated that POWERGRID has been facing some transportation problems and assured that the upgradation would be completed by January 2018.

Further it was informally intimated the work may be completed by 3rd week of May 2018. However, the upgradation of 2x50 MVA, 132/33 KV Sub-Station at Imphal (PG) to 7x105 MVA, 400/132 KV with single phase transformer and construction of 2 nos. 400 kV GIS line bays at 400/132 kV Sub-Station Silchar have not been completed, yet. More importantly the shifting of existing 400 kV lines due to interference with Railway tracks nearby Yurembam substation (PG) is not completed.

PGCIL is therefore requested once again to pay special attention to the up-gradation of 2x50 MVA, 132/33 KV Sub-Station at Imphal (PG) to 400/132 KV, 7x105 MVA single phase unit and the construction of 2 nos. 400 kV GIS line bays at 400/132 kV Sub-Station, Silchar for termination of Silchar – Imphal (PG) 400 kV D/C line so that there is no further delay. Also it is requested to indicate the actual timeline.

### **Deliberation of the TCC**

During 150th OCC Meeting POWERGRID informed that the upgradation of Silchar-Imphal Circuit # 1 & 2 from 132kV to 400kV can be taken up by POWERGRID by December 2018. However, for the purpose, following sequence is to be followed: The upgradation of 132KV Silchar-Imphal # 1 & 2 to 400KV level has to be carried out in a sequential manner one after the other circuit as per the following:

#### **A. Upgradation of Silchar-ImphalCkt-1 to 400Kv level**

**Step 1:** 132Kv Silchar-Imphal – 1 at Imphal end to be kept in transfer mode for connection of 132KV CB and Isolators to LV side of 400/132Kv ICT-2. The same is already completed.

**Step 2:** Continuous S/D of Silchar-Imphal -1 for 4 days is required for following activities:

- (a) Termination of existing Silchar-Imphal -1 line to 400KV yard of Silchar and Imphal Ss.
- (b) Shifting of Sil-1 132KV line CT connection to LV side of ICT-2 and carrying out of differential stability test of ICT-2 at Imphal Ss.
- (c) Replacement of old MOM box with new MOM box for 132Kv transfer, line & bus isolator connection from Sil-1 bay to LV side of ICT-2 at Imphal Ss.
- (d) Dismantling of wave trap, LA and line CVT at Imphal Ss.
- (e) End to end Commissioning of PLCC link for Circuit-1.

**Step 3:** Charging of Silchar – Imphal – 1 at 400KV level from Silchar end and

energization of ICT-2 from 400KV side at Imphal end. The transformer is to be kept at ideal charging (without loading) for 24 Hrs as per norms.

**Step 4:** Shut down of 132KV Bus for 5 hrs for phasing of transformer at LV side. Subsequently Sil-Imp-1 line will be loaded at 400Kv level.

**B. Upgradation of Silchar-ImphalCkt-2 to 400Kv level**

The same procedure is to be repeated for conversion of 132KV Silchar-Imphal -2 to 400Kv level after successful completion of Circuit-1 conversion.

Further, POWERGRID informed the forum that one circuit of 132kV Silchar – Imphal # 1 & 2 will be enough to cater the requirement of Manipur in the event of outage of 132kV Dimapur – Imphal Line. In addition, presently, there is hardly any tripping of 132kV Silchar – Imphal Line.

After detailed deliberation Manipur agreed for the above shutdown in the month of December, 2018 for upgradation of 132kV Silchar-Imphal D/C. Further forum requested POWERGRID to complete the railway diversion of 132kV Silchar-Imphal D/C line for which Manipur agreed to extend support/help to resolve RoW issue.

***TCC noted as above.***

***This is for information to RPC.***

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.03</b>	<b>:</b>	<b>INSURANCE AGAINST SLDC ASSETS - MePTCL</b>
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During 147<sup>th</sup> OCCM, SE, SLDC, MeECL informed that they need clarification from NERTS about the coverage of insurance in existing tariff before processing for insurance of SLDC under operation. Subsequently, it was clarified that POWERGRID has not considered the running and maintenance cost including insurance in the tariff petition for the SLDC assets of Meghalaya and other states established under SCADA up-gradation project by POWERGRID.

**Deliberation of the TCC**

POWERGRID intimated that there is no consideration of running and maintenance cost including insurance in the tariff petition for the SLDC assets established under

the SCADA up-gradation project. AMC for this project is not in the scope of POWERGRID. Further, regarding insurance after commissioning, the same was not included in tariff petition as it was not under the scope of project. The matter has already been intimated in last 144<sup>th</sup> OCC that, insurance of building/Fire/Burglary etc., is not covered in SLDC Expansion project LOA. The same may be taken up by respective state SLDC utility.

***TCC noted as above.***

***This is for information to RPC.***

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.04</b>	<b>:</b>	<b>REQUIREMENT OF OPGW FOR LINE DIFFERENTIAL PROTECTION – NERPC</b>
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In 10<sup>th</sup>NETeST meeting, MePTCL representative informed that the DPR for Line differential Protection has been recasted wherein OPGW item is incorporated in the revised DPR of Reliable Communication Scheme in line with the Techno Economic Committee observations which is presently under the evaluation process. The DPR is awaiting approval from PSDF.

After detailed deliberation the forum decided that OPGW for differential protection in selected lines except for POWERGRID lines would be taken up under separate scheme of PSDF. NPC has suggested that any OPGW requirement would be kept under Reliable Communications Scheme. However for short lines Differential Protection implementation requires OPGW. Hence, the matter would be referred to the next TCC/RPC meeting for resolution.

**Deliberation of the TCC**

Director, NERPC stated that the requirement of OPGW is in small quantity and separate tender may not attract vendors. NERTS confirmed that scope of providing OPGW from ongoing project already exhausted. Since, NERPSIP work in different states is in ongoing stage, Director, NERPC proposed to include the OPGW in NERPSIP project. Forum recommended and requested for necessary approval of CEA. The various state utilities were requested to submit the quantity of OPGW for taking up with CEA for inclusion under NERPSIP.

*TCC noted as above.*

*This is for information to RPC.*

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.05</b>	<b>:</b>	<b>CYBER SECURITY ARRANGEMENT FOR SCADA SYSTEM - NERPC</b>
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Presently, the SCADA/EMS Upgrade Project is running through its final phase & all state SLDCs except Arunachal & Nagaland are integrated with NERLDC. This network is also connected to rest of the RLDCs via NLDC. In this scenario, any security incident/ intrusion in one system will affect other connected systems also. Therefore hardening of the security of SCADA/EMS system is a necessity.

In 10<sup>th</sup> NETeST meeting Director (O&P), NERPC informed the forum that CE (IT), CEA would give a presentation in the upcoming TCC/RPC meeting.

CE(IT), CEA may give presentation.

**Deliberation of the TCC**

Member Secretary, NERPC informed that CE(IT), CEA would be requested to give presentation in the next TCC/RPC meeting.

*TCC noted as above.*

*This is for information to RPC.*

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.06</b>	<b>:</b>	<b>REQUIREMENT OF HIGH SPEED INTERNET FACILITY WITH RELIABILITY AT ISGS STATIONS AND SLDCs - NERPC</b>
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During 148<sup>th</sup> OCC Meeting, NERLDC informed that WBES had been implemented in NER w.e.f. 1<sup>st</sup> September 2018 and Web based Reporting System will also be implemented shortly in NER. Further, it is stated that with the implementation above

software, the availability of high speed Internet facility is again an issue with most of the constituents, ISGS/ SLDCs mainly NEEPCO/ OTPC/ NHPC Stations as intimated by the constituents during the WBES implementation Training Programme held at NERLDC, Shillong on 29th August'18. All SLDCs and ISGS stations are requested to plan for having reliable and high-speed internet facilities. However, after detailed deliberation and considering additional financial implication the forum recommended to refer the issue to TCC / NERPC for further deliberation.

**Deliberation of the TCC**

Members noted the requirement for high speed internet facility at SLDC/ISGSs. TSECL informed that presently adequate internet facility is available at SLDC Tripura and additional requirement for high speed internet does not arise.

***TCC noted as above.***

***This is for information to RPC.***

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.07</b>	<b>:</b>	<b>NON-AVAILABILITY OF TELEMETRY AND DEDICATED VOICE COMMUNICATION FROM TIPAIMUKH SUBSTATION - NERLDC</b>
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LILO of 132 kV Jiribam-Aizawl line at Tipaimukh (Manipur) was done on 3rd June'18 but still real time data and dedicated voice communication is not available. NERLDC is facing problem in case of any tripping of Aizawl -Tipaimukh / Jiribam -Tipaimukh and taking long time for restoration.

MSPCL to give priority to Tipaimukh S/S so that telemetry may be put through as early as possible.

MSPCL may update the status and confirm the telemetry/dedicated voice communication time frame.

**Deliberation of the TCC**

MD, MSPCL informed that matter has already been taken up for integration & RTU is in place. The earlier trial over GPRS was not successful as there is no mobile network at Tipaimukh. Further he informed that PLCC service engineer would be engaged and materials like Modems & accessories would be arranged by Dec18. NERTS informed

that matter discussed by MSPCL with PGCIL for data integration over existing OPGW network from Jiribam Wide Band node. MD MSPCL confirmed data will be integrated/reported to NERLDC by Dec18.

**TCC noted as above.**

**This is for information to RPC.**

**Deliberation of the RPC**

The RPC noted as above.

ITEM NO. D.08	: STATUS OF FO EXPANSION AND MW VACATION PROJECT IN NER – NERLDC
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The status of ongoing projects is attached in **Annexure –D.08**. Delay in execution is contributing towards non-availability and reliability of Real time data and Dedicated Voice communication.

**Deliberation of the TCC**

This is for information.

Project	Scope-km	Current Status
Microwave Replacement	1135	Approx. 8 Km stringing balance. The same is pending due to issues such as tower diversion and re-stringing requirement. 13 links out of 31 has been commissioned. Detailed status attached as <b>Annex D.08</b> .
FO Expansion	1980	763.885 Km stringing done. Balance installation is affected due to slow progress by M/s TCIL. Stringing completion is expected <b>by July '2019</b> .

ED, NERLDC emphasized that communication pertaining to Backup NERLDC is to be taken care on priority. ED-LD&C intimated that there are two parts viz. MW Vacation & FO Expansion. It was further intimated that OPGW laying awarded to TCIL is getting delayed for various reasons. However, connectivity for Back Up will be achieved through NER FO Expansion will be achieved by 2019 as mentioned above.

**TCC noted as above.**

**This is for information to RPC.**

**Deliberation of the RPC**

The RPC noted as above.

<b>ITEM NO. D.09</b>	<b>:</b>	<b>PROGRESS OF URTDSM PROJECT - NERLDC</b>
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NER Grid system become complex and Dynamic status monitoring of Grid can be achieved only through Wide Area Measurement. In this context the project was awarded to M/s GE on 15.01.2014 by POWERGRID. The original completion schedule of Project as per LOA was 24 months from date of LOA.

The status submitted by NERTS, POWERGRID is enclosed in **Annexure – D.09**

**Deliberation of the TCC**

Project Scope (NER): 51 PMUs in 14 S/s and PDC installation in 4 Control Centres

Current Status:

**A. PMU:**

- a. 46 PMUs commissioned in 12 substations. Installation pending at BiswanathChariyali (Additional cable to be supplied as no space in kiosk) and Ranganadi (OPGW is pending due to ROW/Peddy issue on splicing).
- b. Out of 12 commissioned stations, re-work at Dimapur (due to fire break-out) is pending.

**B. Control Centers:**

- a. Installation done for 3 control centers (NERLDC, Assam and Meghalaya) out of 4 (NERLDC, Assam, Meghalaya, Arunachal Pradesh). ED LD&C intimated that SAT completed for Assam (26.6.18) and Meghalaya (03.08.18) & signed. For NERLDC, SAT completed on 26.10.2018 and accordingly same may also be signed by NERLDC (if required by adding punch points). The other regional counterparts have already signed the SAT. NERLDC may also do the same accordingly. The SAT is to be conducted/signed as per contract TS and any additional points beyond contract TS/SAT format is to be separately taken up. ED NERLDC & Director, NERPC assured to resolve the issue soon. ED LD&C has intimated that a specific date of start of SAVT may be provided. Forum opined accordingly for early completion of SAT, signing etc. as per contract & SAVT start.

b. PDC of SLDC AP is to be diverted.

Detailed status is attached as **Annexure D.09**

***TCC noted as above.***

***This is for information to RPC.***

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.10</b>	<b>:</b>	<b>ROUND THE CLOCK OPERATION REQUIRED AT NEEPCO CONTROL ROOM, SHILLONG - NERLDC</b>
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We have in NER & Generating Stations (ISGS) of NEEPCO alongwith Monarchak and Tuirial. Most of the stations are remotely located and communication is poor. So co-ordination with the stations from RLDC is difficult especially during night hours. NEEPCO Control room can communicate with them through VSAT on round the clock basis. POWERGRID established RTAMC/CPCC to co-ordinate with POWERGRID stations which is working 24X7 basis and RLDC is getting all operation related information from them smoothly and coordination is easier. So from NEEPCO side also one point communication with NERLDC is required for smooth operation of Grid and this will help in proper & quick decision making process of operation.

Direct VSAT communication may be extended by NEEPCO between ISGS and NERLDC and till that time round the clock NEEPCO control room may be set up

**Deliberation of the TCC**

ED, O&M NEEPCO intimated that when most of the new stations are commissioned, then personnel will be deployed round the clock in NEEPCO control room. This is for information

***TCC noted as above.***

***This is for information to RPC.***

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.11</b>	<b>:</b>	<b>DOWNSTREAM SYSTEM AT 132/33 KV SIHHMUI S/S (MIZORAM) - POWERGRID</b>
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POWERGRID is implementing (a) Silchar – Melriat 400 kV D/C line (initially to be operated at 132 kV) (b) Melriat – Sihhmui 132 kV D/C line and (c) LILO of Aizwal – Zemabawk at Melriat under Transmission system associated with Pallatana GBPP and Bongaigaon TPS. Silchar – Melriat 400 kV D/C line (initially to be operated at 132 kV) is in the advanced stages of construction and is expected to be completed by August 2018. Melriat – Sihhmui 132 kV D/C line and LILO of Aizwal – Zemabawk at Melriat are ready for commissioning. However, the downstream network at Sihhmui (Mizoram) S/S which includes installation of 132/33 kV ICTs and 33 kV lines are not ready, for utilization of the system.

It is to bring to the notice of the members that, in recent orders, CERC has been allocating the transmission charges of commissioned unutilized system on the defaulting entities.

Mizoram is requested to expedite the works of downstream system at its Sihhmui S/S to match with ISTS system so as to enable utilization of the ISTS system which is in the advanced stages of construction and intimate the status in this regard.

**Deliberation of the TCC**

Director NERPC informed that during NERPSIP Meeting on 12.11.2018 Mizoram informed that downstream will be made ready March 2019.

***TCC noted as above.***

***This is for information to RPC.***

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.12 : GENERATION LINKED PROJECTS – POWERGRID</b>
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**(1) KAMENG – BALIPARA 400 KV D/C TL**

POWERGRID has been entrusted with the implementation of “North East - Northern / Western Interconnector - I” which included evacuation of power from Kameng HEP. The scope of works for inter-state transmission system was firmed up in the meeting of the Standing Committee on Power System Planning for WR on 26.9.2005, for NR on 6.1.2005 and for NER 24.10.2005 at Guwahati and concurred in the 6<sup>th</sup> TCC and 6<sup>th</sup>

NERPC meeting held on 7th & 8th August, 2008 at Gurgaon, Haryana. As per communication from NEEPCO, it was intimated that the commissioning of the units of Kameng HEP are scheduled progressively from Dec, 2012 to May, 2013. Investment approval was accorded for this project vide Memorandum dated 27.02.2009 and commissioning schedule as per the investment approval was February 2013. Accordingly, POWERGRID proceeded to take up the implementation of the transmission scheme.

During the 12th NERPC held on 15.11.2011 it was informed that NEEPCO has revised its commissioning schedule to June 2016.

During 136th OCC meeting held on 13.09.2017, NEEPCO has informed the status of Kameng HEP as early 2018 for the commissioning of first unit. During 18th NERPC, status of commissioning of Kameng Unit I & II is provided as March 2018.

Despite the schedule of Generation from Kameng HEP being revised multiple times, POWERGRID has taken earnest efforts to match the commissioning of 400kV D/C Kameng – Balipara transmission line with Generation Unit. The Kameng - Balipara transmission line was completed and ready for commissioning in March, 2018. The line could not be put into commercial operation due to non-readiness of Kameng HEP.

Implementation Agreement (IA) was proposed to be signed between POWERGRID and NEEPCO in this regard and signed copy (by POWERGRID) of IA was sent to NEEPCO vide letter dated 06.07.2016. A reminder regarding the same was also sent on 31.08.2017 but the IA has not been signed till date.

It is to bring to the notice of the members that, in recent orders, CERC has been allocating the transmission charges of commissioned unutilized system on the defaulting entities.

NEEPCO may expedite the completion of HEP so that the ISTS system is put into regular service and intimate the present status/expected commissioning of the project.

*NEEPCO may update. Members may also deliberate the issue of debt servicing of the funds deployed by POWERGRID and O&M of line.*

**(2) LOWER SUBANSIRI - BISWANATH CHARİYALI 400 KV TWO (2) D/C LINES**

POWERGRID has been entrusted with the implementation of "North East - Northern / Western Interconnector - I". The said transmission system interalia comprises of Transmission System for immediate evacuation of power from Lower SubansiriHEP (NHPC) as under:

- (a) Lower Subansiri – BiswanathChariyali (Pooling Point) 400 kV two (2) D/C line with twin lapwing conductor
- (b) Extension of 400 kV line bays at BiswanathChariyali Pooling Substation Transmission line

As per the investment approval, the 400 kV D/C Lower Subansiri – BiswanathChariyali Transmission lines (Line-I & II) was to be commissioned by February, 2013.

Due to mass agitation by various NGOs & student bodies with support from the local people protesting against construction of Lower Subansiri& other big dam projects, and their evacuating transmission lines, coming up in the neighbouring state of Arunachal Pradesh since early 2011, the progress of the works was adversely affected and the works came to a complete stop w.e.f. December 2011. As the Lower Subansiri Generation project is also stalled and the associated lines are meant for immediate evacuation of power, it would be prudent to match the lines with the Generation Project schedule. POWERGRID has already incurred exorbitant loss due to the inordinate delay in the project and the commissioning of the Generation unit and transmission line is uncertain.

NHPC may intimate the present status/commissioning schedule of the project.

*NHPC may update. Members may also deliberate the issue of debt servicing of the funds deployed by POWERGRID and O&M of line.*

**Deliberation of the TCC**

NEEPCO informed that 2 units of Kameng HEP will be commissioned by March19.

NHPC intimated that operationalization of Subansiri HEP depends on NGT report. If clearance is received; then within one year project would be completed. Forum requested NHPC to address the issue of "time overrun" properly.

***TCC noted as above.***

***This is for information to RPC.***

### **Deliberation of the RPC**

The RPC noted as above.

<b>ITEM NO. D.13</b>	<b>:</b>	<b>ISSUES WITH NER STATES - NERPSIP</b>
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1) **MANIPUR**

Lands for 33/11kVTakyel S/S is pending.

2) **NAGALAND**

Land for 33/11kV Wokha SS Aug. is pending (space constraint).

3) **TRIPURA**

- a) Lands for following 7 nos. of new 33/11kV S/S is pending.  
Dhalak – NOC from Education Dept. pending  
Sekerokote – to be demarcated and handed over  
Tila Bazar – to be demarcated and handed over  
Ekinpur, Barpathari&Nidaya – Forest Land, clearance pending  
Manughat – Yet to be acquired
- b) Existing 132kV Line & 33kV Line to be shifted by TSECL in 132/33kV Udaipur Extension Substation.
- c) Existing 11kV Line to be shifted by TSECL in Ambassa Extension S/S.
- d) Existing 11kV Gantry & 33kV Line to be shifted by TSECL in Kailasahar Extension Substation.
- e) Existing 11kV Line to be shifted by TSECL in Sabroom New Substation.

4) **ARUNACHAL PRADESH:**

Lands for 3 out of 24 nos. of new EHV substations, 28 out of 70 nos. of new DMS substation yet to be handed over.

EHV: Seijosa, Halaipani& Palin

DMS: Seijosa, Gohpur Tinali, Pappu Nalah, Kanubari, Thimbu, AIR Pasighat, Jeying, Giba, Maro, Diyun, Murimugli, Nacho, Nyapin, Sippi, Tali, Thalia, Boleng, Jenging, Kaying, Koreng, Maryang, Mechuka, Tuting, Bijari, Bolung, Haliapani, Hawaii & Wallong.

### **Deliberation of the TCC**

TCC requested state utilities to expedite handing over of balance substations' land on priority. TSECL is to expedite the shifting of the existing structures as mentioned above. POWERGRID requested NERPC to intervene so that a final date may be achieved as the project is getting delayed for the aforesaid reasons as well.

*TCC noted as above.*

*This is for information to RPC.*

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.14</b>	<b>:</b>	<b>STATUS OF VARIOUS TRANSMISSION PROJETS BEING EXECUTED BY M/S STERLITE</b>
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In 18<sup>th</sup> TCC/RPC meeting it was approved that 400kV Surjamaninagar – P.K. Bari and 132kV AGTCCPP – P.K. Bari would be executed using Multi circuit towers and 132kV Biswanath Chariali – Itanagar would be implemented using Monopoles by M/s STERLITE.

During 18<sup>th</sup> NERPC Meeting held at Shillong on 11<sup>th</sup> October, 2017, M/s Sterlite has given the target date of completion of projects as below:

- The projects are targeted for completion by July, 2019 against the scheduled completion date of July, 2020. CEA requested to commission the projects by December, 2018 on best effort basis by adopting new technologies.
- NER States will be benefited for early completion of the projects and for the same new technology shall be used for construction
- The proposal is in principle approved by CEA. Necessary matching with readiness of other related elements shall be finalized for early commissioning.

In addition the status of any other transmission projects being executed in NER by M/s STERLITE may please be updated.

**Deliberation of the TCC**

AGM, TSECL informed that the substation under TBCB scope of M/s STERLITE (i) Surjamaninagar - Station not constructed at SMnagar but rather at, East Noagaon- approx. 10km from Surjamnagar (Jirania Sub-division) (ii) likewise not PKBari but at- Masauli (8km away from PkBari). He also informed that Tripura has decided that Substation at Surjamaninagar would be upgraded to 400kV by TSECL itself due to projected load growth in the state. This scheme was originally envisaged by DoNER, but the funds earmarked were inadequate. Further he stated that CEA has decided that Palatana-SMNagar (TSECL) would become Palatana- East Noagaon (STERLITE),

and Bangladesh connection would also be from East Noagaon(STERLITE). Further, he strongly objected to shifting of Palatana lines and Bangladesh lines, clearly mentioning that Power Supply Agreement with Bangladesh states that delivery point would be from Surjamaninagar(TSECL). He reiterated that 132kV AGTCCPP- Masauli (PKBari) rerouted via Budhjannagar(TSECL) one km away from AGTCCPP has already been agreed in the 18<sup>th</sup> TCC/RPC and should be implemented.

For the above, forum agreed in-principle to the proposal of TSECL subject to SCM approval.

TSECL proposed POWERGRID as Project Management Agency for the upgradation of 132kV Surjamaninagar to 400kV from concept to commissioning.

**M/s STERLITE** informed that all projects awarded to STERLITE is well within schedule. For 132kV Biswanath Chariali-Itanagar 34/204 foundation completed and timeline July'19

GM, OTPC requested any modification in scope for bay upgradation at Palatana is to be taken up with OTPC authority adhering to Bilateral agreement.

TCC decided that for 400kV Imphal to Kohima and Kohima to New Mariani would be monitored in OCC of NERPC.

***TCC noted as above.***

***This is for information to RPC.***

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.15</b>	<b>:</b>	<b>LAYING OF OPGW ON NETC TRANSMISSION ASSET - COMMERCIAL MECHANISM THEREOF.</b>
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The Regional Power Committee in its 15<sup>th</sup> & 17<sup>th</sup> NERPC meeting had approved the installation of OPGW by POWER GRID in the 400 KV D/C Palatana-Silchar-Byrnihat-Bongaigaon Transmission Lines ( 400 KV Palatana Transmission system) owned by NETC. Presently, installation of OPGW in NETC lines is being implemented by POWER GRID with no commercial advantage to NETC.

It is understood that, development of such Communication Infrastructure under NER Expansion project was approved by NERPC as a part of existing ULDC Scheme considering the need of dedicated and reliable communication (both voice & data) for better operation of Power System.

In such a large fibre optic based Communication Infrastructure after meeting the ULDC requirement, there remains enough spare capacity excluding the standby and spare capacity earmarked for the original requirement. It is now a general practice to use such unused fibre capacity for normal communication purposes instead of keeping as redundant. The redundant capacity of the existing NER ULDC fibre Network is thus being utilized by POWER GRID for telecom purposes for earning additional revenue after duly compensating towards OPGW cost.

In line with above, NETC is keen to utilize such redundant capacity thus generated due to laying of OPGW in NETC's infrastructure to generate additional revenue.

NETC being the owner of a single Transmission project has limited scope for expansion making it difficult to leverage O&M expenditure and any possibility of additional revenue generation would help NETC for its sustainability.

NETC therefore request the intervention of NERPC in the matter of finalization of commercial mechanism for utilizing such spare fibre capacity generated due to laying of OPGW to the satisfaction of concerned Stakeholders.

**Deliberation of the TCC**

It was confirmed by ED LD&C, POWERGRID that fibers of OPGW (CS asset) as laid over NETC line is for ULDC purpose. However, any fibers, if used for commercial purpose will be taken up as per prevailing norms of CERC & MOMs will be signed accordingly.

***TCC noted as above.***

***This is for information to RPC.***

**Deliberation of the RPC**

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

ITEM NO. D.16	:	SIGNING OF POWER PURCHASE AGREEMENT (PPA) IN RESPECT OF SUBANSIRI LOWER H.E PROJECT (2000MW) IN ARUNACHAL PRADESH - NHPC
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Signing of PPA with Deptt of Arunachal Pradesh, in respect of Subansiri Lower H.E project is pending since long. Modification sought by Arunachal Pradesh in PPA has already been agreed to & conveyed vide this office letter dated 10.11.2016.

Arunachal Pradesh is requested to resolve the issue at the earliest.

**Deliberation of the TCC**

CE, DOP-Arunachal Pradesh informed that PPA has already been submitted to the State Government. NGT has directed NHPC to submit report on environmental impact. After NGT clearance has been obtained by NHPC, thereafter, Govt. of Ar. Pradesh would take action.

***TCC noted as above.***

***This is for information to RPC.***

**Deliberation of the RPC**

*The RPC noted as above.*

ITEM NO. D.17	:	SIGNING OF POWER PURCHASE AGREEMENT (PPA) IN RESPECT OF TAWANG HE PROJECT, STAGE - I & II - NHPC
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Signing of power Purchase Agreement (PPA) in respect of Tawang HE Project, Stage – I & II, is pending with Manipur & Arunachal Pradesh.

All concerned beneficiaries are requested to give their consent for signing of PPA at the earliest.

**Deliberation of the TCC**

CE, DOP-Arunachal Pradesh informed that PPA has already been submitted to the State Government. ED, MSPDCL intimated that Manipur would not take power from Tawang HEP.

***TCC noted as above.***

***This is for information to RPC.***

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.18</b>	<b>: PROPOSAL FOR CONSIDERATION OF 220KV SALAKATI- AGIA LINE OF AEGCL AS DEEMED ISTS LINE FOR POC MECHANISM – AEGCL.</b>
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Around 30-70 MW load flow occurs on radial mode from 132Kv bus of 220Kv Agia GSS (AEGCL) to 132Kv Nangalbibra GSS (Meghalaya). This load of Meghalaya is catered by AEGCL through its 220KV BTPS-Agia line. In the light of CERC's order against the Petition No. 213/TT/2013 Dtd. 18.03.2015 of Rajasthan Rajya Vidyut Prasaran Nigam Ltd. {RRVPL} and Petition No. 88/TT/2017 Dtd. 19.12.2017 of Madhya Pradesh Power Transmission Company Ltd. {MPPTCL}; AEGCL request this forum to do the needful for inclusion of this 220KV Salakati-Agia line under the category of deemed ISTS line for PoC mechanism so that AEGCL gets the benefits of ISTS for justified reason.

The accounting of YTC cost for aforesaid line should also be considered in line with above mentioned CERC's order.

**Deliberation of the TCC**

NERLDC informed that CERC (sharing of transmission charges & losses) Regulation proposal has to be sent to RPC. Onward, NERLDC would study using WeBNET then proposal to be sent for approval of TCC/RPC

*TCC noted as above.*

*This is for information to RPC.*

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.19</b>	<b>: FREQUENT FAILURE OF 400KV REACTORS IN NER – NERTS.</b>
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In North Eastern Region, it is observed that there are frequent failure of Reactors mainly at Balipara and Bongaigaon including one no. at newly commissioned BNC Station. It is to be mentioned here that, on daily basis, there are many opening and

closing operation of 400kV lines are being carried out to control the voltage of NER Grid. Each such operation produces stress to the reactors. Though the Reactors are designed to withstand such stresses but, if the stress is subjected on daily basis, the life of any Reactor is going to be reduced drastically.

In view of above, detailed study is required to assess requirement for installation of additional Reactors in NER Grid to take care of following:

- Avoid opening and closing of 400kV Lines on daily basis.
- Maintain Grid Voltage within limit in case of exigency like breakdown of two or three Reactors in critical locations of NER Grid.
- Have flexibility to take shut down for carrying out preventive maintenance of Reactors as per the maintenance schedule. Presently many shut downs for preventive maintenance are to be disallowed for Grid Overvoltage.

**Deliberation of the TCC**

The forum noted the requirement of additional reactors. Director, NERPC informed that M/s PRDC has been requested to carry out a study in this regard and would present the results in 1<sup>st</sup> NERSCT.

***TCC noted as above.***

***This is for information to RPC.***

**Deliberation of the RPC**

*The RPC noted as above.*

ITEM NO. D.20	:	APPROVAL OF 4X5MVA, 132KV, 1-PHASE BUS REACTOR AT MELRIAT (PG) SUB STATION AT MIZORAM
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Under Pallatana Transmission Scheme 4X5MVA, 132kV Bus Reactor was installed and at present made ready for charging. However, due to non-availability any record of SCM approval NERLDC is not providing permission for 1<sup>st</sup> Time Charging.

**Deliberation of the TCC**

***TCC noted and referred to 1<sup>st</sup> NERSCT.***

***This is for information to RPC.***

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.21</b>	<b>: EVACUATION OF 2ND CIRCUIT OF EXISTING 132kVPALATANA-UDAIPUR – 7<sup>th</sup> SCM &amp; 18<sup>th</sup> NERPC (Item No. B.6)</b>
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During deliberation in 18th TCC Meeting, Director (Tech.), TGPL stated that if 132kVPalatana-Udaipur is disconnected; then Monarchak power may be evacuated to 60MW approx. Also he informed the forum that many ROW challenges are associated with commissioning of 132kVMonarchak – S.M. Nagar.

ED (O&M), NEEPCO strongly agreed with TSECL as there would be heavy loss due to generation reduction of Monarchak and requested that 132kVPalatana-Udaipur remain connected.

Director (O&P), NERPC requested that the disconnection may be deferred till April, 2018.

Member Secretary intimated that decisions taken in CEA meeting could not be revoked and requested Tripura to write to CEA/MOP so that they may be agreed for deferment till April, 2018 and requested TSECL to strictly adhere to the time line agreed in the meeting.

Subsequently, in 7<sup>th</sup> SCM, the representative of TSECL informed that the power is being fed to south Tripura through Udaipur S/s of TSECL. In case of opening of Palatana – Udaipur 132kV line, the power supply to Udaipur area will be affected.

He again requested to retain the Palatana-Udaipur 132kV line till the commissioning of Monarchak – Surajmaninagar and Rokhia – Surajmaninagar 132kV D/c lines which are expected by September, 2018.

Member (PS) advised Tripura to expedite the commissioning of Monarchak – Surajmaninagar and Rokhia – Surajmaninagar 132kV D/c lines.

After detail deliberations in 7<sup>th</sup> SCM, it is agreed that the Palatana – Udaipur 132kV line shall be opened by September 2018 to enable termination of 2nd circuit of Palatana – Surajmaninagar 400kV D/C line (operating at 132kV) at Palatana end and accordingly NERPC would take further action.

**Deliberation of the TCC**

AGM, TSECL informed that even after commissioning of Monarchak-Surjamaninagar the load growth of the southern part of the State (as discussed in the Chintan Shibir organized by NITI Aayog) cannot be catered if 132kV Palatana-Udaipur is disconnected. Moreover as per load flow study charging of 132kV Palatana-Surjamaninagar utilizing the vacated bay at Palatana will not be sufficient to export additional power to Bangladesh until and unless 400/132kV ICT-3 is commissioned at Palatana. This will also safeguard N-1 factor of State grid system. TSECL stated that the Govt. of Tripura/TSECL will pursue the matter with OTPC very shortly. Further STERLITE has informed that they will be commissioning Palatana – Surjamaninagar operation at 400kV by July'19.

The forum agreed in-principle subject to 1<sup>st</sup> NERSCT approval.

**Deliberation of the TCC**

***TCC noted and referred to 1<sup>st</sup> NERSCT.***

***This is for information to RPC.***

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.22</b>	<b>: POWER SUPPLY FROM ROING GRID SUB STATION TO CHAPAKHOWA SUB DIVISION OF ASSAM – 7<sup>TH</sup> SCM</b>
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NERPC stated that Power Supply to Chapakhowa Sub-Division (Sadiya area) under Tinsukia Electrical Circle is provided from 132/33 kVRupai Sub-Substation through a 33 KV line, which traverse through a distance of more than 100 kms, major portion of the line being within Arunachal Pradesh. Because of very long distance and the hilly terrain, most of the time this feeder remains under shut down.

There is a proposal for installation of one 132/33 kV sub-station in that area which is expected to be commissioned in two to three years. In the meantime, an arrangement viz. implementation of Roing – Chapakhowa 33 kV line is proposed to buy 5 MW of power from Arunachal Pradesh utilizing the facility of 132/33 kVRoing sub-station of POWERGRID.

**Deliberation of the TCC**

After detailed deliberation, Members agreed that the matter may be discussed and resolved in OCC/NERPC forum.

*TCC noted as above.*

*This is for information to RPC.*

**Deliberation of the RPC**

*The RPC noted as above.*

ITEM NO. D.23	: TRIPPING MONITORING SYSTEM' WEB PORTAL FOR FURNISHING DR & EL OUTPUT AND FIR- NERLDC
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It has been observed that some power utilities are having problem in furnishing the DR & EL output and FIR on timely manner. Web portal has been developed by POSOCO for furnishing DR & EL outputs and FIR along with documentary evidences for each grid events by concerned utilities. Tripping of important grid elements will be made available in the web portal by NERLDC w.e.f 1st of Sep'18 as discussed in 51st PCCM.

Utilities are requested to upload DR & EL outputs and FIR along with documentary evidences for the events pertaining to them through this web portal within 24 Hours of an grid event.

**Deliberation of the TCC**

For information to TCC

*TCC noted as above.*

*This is for information to RPC.*

**Deliberation of the RPC**

*The RPC noted as above.*

ITEM NO. D.24	: AUDIT OF BOARD FUND OF NERPC - NERPC
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The Board Fund of NERPC for FY 2016-2017 and 2017-2018 has been audited by constituents of NERPC who are based in Shillong i.e. MeECL, NERTS & NEEPCO for FY 2016-2017 and 2017-2018. The copy of report is attached at **Annexure D.24**.

**Deliberation of the TCC**

For information to TCC

*TCC noted as above.*

*This is for information to RPC.*

**Deliberation of the RPC**

*The RPC noted as above.*

<b>ITEM NO. D.25</b>	<b>:</b>	<b>UPDATE ON PROTECTION DATABASE MANAGEMENT SYSTEM - NERPC</b>
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In compliance with the Task Force Report on Grid Disturbance Analysis in 2012, a Protection Database for different regions in India was envisaged. Accordingly, the web-based Protection Database Management System and Protection Setting Calculation Tool (PSCT) for entire North Eastern Region was thus sanctioned from PSDF in 2018. Award has already been placed to M/s PRDC and the work is in progress. Target date of completion is: April, 2020.

All the constituents are requested to cooperate with M/s PRDC at site level for in time completion of project.

**Deliberation of the TCC**

For information to TCC

***TCC noted as above.***

***This is for information to RPC.***

**Deliberation of the RPC**

*The RPC noted as above.*

<b>CATEGORY – E</b>	<b>:</b>	<b>RESOLUTIONS TAKEN DURING THE 19<sup>TH</sup> RPC MEETING</b>
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The North Eastern Regional Power Committee (NERPC) unanimously resolved in the 19th NERPC meeting held on 29<sup>th</sup> November, 2018 at Guwahati as follows:

That this Committee strongly urges upon Ministries of Government of India concerned for the following:

<b>RESOLUTION. 01</b>	<b>:</b>	<b>INCLUSION OF NETC AS FULL MEMBERSHIP OF NERPC.</b>
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We, the Power Ministers of North-Eastern States express our deep gratitude that Government of India has supported NER in various projects for development of the Region. We hope the same spirit will continue in future for speedy improvement of Power Sector in NER.

NETC is the Transmission Utility operated only in NE. Region and has the share of NER States; therefore proper co-ordination is necessary for operation of 400kV Pallatana – Silchar – Killing (Byrnihat) – Bongaigoan & 400kV Pallatana – Silchar – Azara – Bongaigoan lines in various forum of NERPC. We therefore agreed to grant NETC full membership of NERPC.

Also unlike in other regions of the country where many members are available in their regions and it would be very difficult to accommodate all of them; but in North Eastern Region members of NERPC are very few and it is therefore requested to kindly look into the matter and consider to grant NETC as full membership of NERPC as agreed by NERPC Forum.

***With this background in mind and considering the importance of NETC for proper coordination of Power flow in NER, we request your good self to intervene into the matter so that the NETC can be granted full membership of NERPC by amending the relevant clause of NERPC.***

<b>RESOLUTION. 02</b>	<b>:</b>	<b>INCLUSION OF SIKKIM STATE AS CONSTITUENT OF NORTH EASTERN REGIONAL POWER COMMITTEE</b>
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Although all the development activities in Sikkim State are taking place with financial assistance through North-Eastern Council (**NEC**)/DoNER, the benefits from development in the State are being availed by Eastern Regional States only. Many hydro projects are existing or are under execution in the Sikkim State. However, the State of Sikkim is presently a constituent member of Eastern Regional Power Committee. We, therefore, submit to your honour for kindly considering inclusion of Sikkim State as constituent member of North-Eastern Regional Power Committee and for amendment of the relevant provisions in the resolution dated **29.11.2005** published in the Gazette of India, so that the States of North Eastern Region are able to fully derive benefits from major hydro projects developed in the State of Sikkim.

***With this background, we request your good self to intervene into the matter so that Sikkim being in NE Region can be granted full membership of NERPC by amending the relevant clause of NERPC.***

<b>RESOLUTION. 03</b>	<b>:</b>	<b>100% FUNDING FOR RELIABLE COMMUNICATIONS &amp; DATA AQUISITION SCHEME FROM PSDF</b>
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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 communication interfaces for WAM system, SCADA/EMS system, Protection system, Market Operation Service and Service Providers (Forecast, Weather and Ancillary services) is for low & high speed data, express voice circuits and administrative voice circuits

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

Reliable Communication is one of the main important issues of Power System in NER. And at present the communication network in NER is still far behind compare to the other region of the country. Moreover, with thin population in NER, commercial use of extra fiber for leasing the bandwidth does not arise. Therefore, unless 100% funding is assisted by the Govt. of India, the reliable communication in NER will not be addressed.

***With this background, we request your good self to intervene into the matter so that 100% funding to be provided from PSDF for the constituent States of NER.***

**RESOLUTION. 04 : NPC, CEA TO BE NODAL AGENCY FOR PSDF**

It has been observed that releasing of funds from PSDF by NLDC is very slow and took a long time to process. This has led to delay in implementation of various schemes due to non-release of funds on time. Because of this delay, the execution time as granted under PSDF is 18 months and same could not be completed. In order to avoid unnecessary delay and make the process faster, NPC, CEA is the right agency for maintain and release of fund. Moreover, the technical sub group of PSDF as well as the Appraisal group is being done by CEA & NPC, CEA, hence, the above PSDF fund may kindly be maintained and release by NPC, CEA in place of NLDC as per existing norms

***With this background, we request your good self to intervene into the matter so that the existing PSDF may kindly be maintained and operated by NPC, CEA in place of NLDC.***

**DATE & VENUE OF THE NEXT MEETING**

The next meeting of 20<sup>th</sup> TCC & 20<sup>th</sup> NERPC is proposed to be held in February, 2019 at Manipur. The exact date & venue will be intimated later.

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



# ANNEXURES

**LIST OF PARTICIPANT IN 19<sup>TH</sup> TCC MEETING**

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
1	ASSAM	J.K. Baishya	CGM , SLDC
2		P.K. Medhi	CGM, AEGCL
3		Sanjeev Goswami	CGM, UAR
4		R. Choudhury	DGM, APDCL
5		H.N. Borah	AGM, APGCL
6		K.R. Bora	AGM, APGCL
7		Kumud Goswami	Consultant (Comml.), APDCL
8	AR. PRADESH	T. Mara	CE (P)
9		G. Doji	CE (Power)
10		R.K. Joshi	CE (GEN)
11		Hage Mima	SE
12		Nangkong Perme	SE (SO)
13	MANIPUR	N. Sarat Singh	MD, MSPCL
		H. Shanti kumar Singh	Executive Director, MSPDCL
		Ng. Subhachandra Singh	Executive Director, MSPCL
14		L. Dinesh Kumar Singh	GM (SLDC)
15		Ng. Birjit Singh	GM (Planning)
18		Varun Irengbam	Manager, MSPCL
19	MEGHALAYA	E.W. Nongrum	TCC Chairman & Dir.(Gen.)
20		C. Kharkrang	Director (Trans.), MePTCL
21		E.B. Kharmujai	CE (Comml.), MePDCL
22		A. Kharpran	CE (T)
23		M. Shangpliang	CE (Generation), MePGCL
24		H.F. Shangpliang	SE (Gen.)
25		M. Marbaniang	ACE (T)
26		F.E. Kharshiing	SE, SLDC
27		R. Majaw	SE (EM), MePDCL
28		K.N. War	Director (Dist.), MePDCL
29		B. Nikhla	EE (SP), MePTCL
30		W. Khyriem	EE (GSPD), MePGCL

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
31	NAGALAND	Er. R. Angami	CE (T&G)
32		Er. Shikato Sema	SE
33		Er. Nitovi Wotsa	EE
34	TRIPURA	Ranjan Deb Barman	AGM
		Sishir Debbarma	DGM
35		Arup Gan Chaudhuri	DGM
37		Debabrata Pal	Sr. Manager (Comml.)
38	NEEPCO	H.Kr. Deka	I/c ED (O&M)
39		Debjani Dey	GM (Comml.)
40		Bhaskar Goswami	Sr. Manager (O&M)
41		Munin Choudhury	Sr. Manager (Comml.)
42	NHPC	K. Rajah Pandian	GM
43		S. Adhikari	GM
44		S. Marandi	Sr. Manager
45		N. Yugandhar	Sr. Manager
46	NERLDC	T.S. Singh	Executive Director
47		A. Mallick	DGM
48		R. Sutradhar	DGM
49		Sourav Mandal	Sr. Engineer
50		Momai Dey	Sr. Engineer
51		Tapobrata Paul	Engineer
52	POWERGRID	D.S. Yadav	Executive Director, NER
		Sunil Agrawal	Executive Director, LD&C
53		U. Kataki	Sr. G.M.
		P. Kanungo	GM
56		Jaya Prakash J.P	Sr. DGM (NERPSIP)
57		Sominan Das	DGM (NERPSIP)
58		Supriya Paul	CM/ULDC-NER
59	NTPC	D. Bose	CGM
60		P.R. Jena	AGM (Comml.)
61		R.K. Sood	AGM (I/c Comml.)/Heads of Comml.
62		S. Haloi	DGM (Comml.)

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
63	OTPC	Arup Ch. Sarma	GM (Comml.)
64	NETC	Dilip Kr. Sarma	Sr. Consultant
65		Ratan Singh Basnet	Asst. Manager
66	STERLITE POWER	Neeraj Jain	Head O&M (TL)
67		B.Joshi	DGM
68		P. Yadu	Dy. Manager (Projects)
69	NERPC	P.K. Mishra	MS
70		B. Lyngkhoi	Director (C&O)
71		S.M. Aimol	Deputy Director
72		S. Mukherjee	Asst. Director -I/AEE

**ANNEXURE - II**

**LIST OF PARTICIPANT IN 19<sup>th</sup> NERPC MEETING**

1. Sh. James K.Sangma            Hon'ble Power Minister, Govt. of Meghalaya
2. Sh. T. Ayemi                    Hon'ble Adviser (Power), Govt. of Nagaland
3. Sh. P.S. Mhaske                Chairperson, CEA

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION	
4	ASSAM	S.N. Kalita	MD, AEGCL	
5		Smt. Kalyani Baruah	MD, APGCL	
6		B.M. Saikia	CGM (Com)	
7		R. Barooah	CGM (G)	
8		J.K. Baishya	CGM , SLDC, AEGCL	
9		P.K. Medhi	CGM, AEGCL	
10		Karuna Sarma	AEGCL	
11		Utpal Gohain	GM, APGCL	
12		Th. Sachimohan Singha	AGM, AEGCL	
13		Indrajit Tahbildar	DM, APDCL	
14		Amal Mitra	OSD to MD APGCL	
15		Meena B. Choudhury	GM, APGCL	
16		K. Goswami	Consultant (Comm), APDCL	
17		R. Choudhury	DGMAPDCL	
18		AR. PRADESH	G.S. Meena	Comr. & Secretary (Power)
19			T. Mara	CE (P)
20	G. Doji		CE (Power)	
21	R.K. Joshi		CE (GEN)	
22	Hage Mima		SE	
23	Nangkong Perme		SE (SO)	
24	MANIPUR	Ng. Birjit Singh	GM (Planning)	
25		H. Shanti kumar Singh	Executive Director, MSPDCL	
26		Ng. S.C Singh	Executive Director, MSPCL	
27		L. Dinesh Kumar Singh	GM (SLDC)	
28		Varun Irengbam	Manager, MSPCL	
29		E.W. Nongrum	TCC Chairman & Dir(MePGCL)	

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
30	MEGHALAYA	C. Kharkrang	Director (Trans.), MePTCL
31		K.N. War	Director (Dist.), MePDCL
32		E.B. Kharmujai	CE (Comml.), MePDCL
33		M. Shangpliang	CE (Generation), MePGCL
34		A. Kharpran	CE (T), MePDCL
35		M. Marbaniang	ACE (T), MePTCL
36		H.F. Shangpliang	SE (Gen.)
37		F.E. Kharshiing	SE, SLDC
38		B. Nikhla	EE (SP), MePTCL
39		W. Khyriem	EE (GSPD)
40	NAGALAND	K.D. Vizo	Comr. & Secretary (Power)
41		Rokozhalie Angami	CE (T&G)
42		Er. Shikato Sema	SE
43		Er. Nitovi Wotsa	EE
44	TRIPURA	R. Debbarman	AGM
45		Arup Gan Choudhuri	DGM, TSECL
46		Sishir Debbarma	DGM
47		Debabrata Pal	Sr. Manager
48	NEEPCO	A.G. West Kharkongor	CMD
49		H. Deka	Executive Director (O&M)
50		Debjani Dey	GM (Comml.)
51		Bhaskar Goswami	Sr. Manager (O&M)
52		Munin Choudhury	Sr. Manager (Comml.)
53	NHPC	K.Rajah Pandian	GM
54		S. Adhikari	GM
55		S. Marandi	Sr. Manager
56		N. Yugandhar	Sr. Manager
57	NERLDC	T.S. Singh	Executive Director
58		R. Sutradhar	DGM
59		A. Mallick	DGM
60		Sourav Mandal	Sr. Engineer
61		Momai Dey	Sr. Engineer

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
62		Tapobrata Paul	Engineer
63	<b>POWERGRID</b>	D.S. Yadav	ED, NERTS
64		Rajiv Kumar	ED, NERSIP
65		Sunil Agarwal	Executive Director, LD&C
66		Anoop Kumar	CGM
67		U. Katakai	Sr. G.M.
68		Prasanta Kanungo	DGM
69		Jaya Prakash J.P	Sr. DGM (NERPSIP)
70		Sominan Das	DGM (NERPSIP)
71		Supriya Paul	CM/ULDC-NER
72		<b>NTPC</b>	M.P. Sinha
73	D. Bose		CGM
74	P.R. Jena		AGM (Comml.)
75	R.K. Sood		AGM (I/c Comml.)/Heads of Comml.
76	S. Haloi		DGM (Comml.)
77	<b>PTC</b>	Rahul Sehrawat	Manager
78	<b>NETC</b>	D.K. Sarma	Sr. Consultant
79	<b>OTPC</b>	Arup C. Sarma	GM (Comml.)
80	<b>CEA</b>	B.K. Sharma	Principal
81	<b>STERLITE POWER</b>	N. Chakraborty	Chief Manager
82		B. Joshi	DGM
83		Farrukh Amir	Lead Policy
84		P. Yadu	Line Manager
85		Nitesh Kumar	MT
86	<b>NERPC</b>	P.K. Mishra	MS
87		B. Lyngkhoi	Director (C&O)
88		S.M. Aimol	Deputy Director (C&O)
89		S. Mukherjee	Asst. Director -I

**ANNEXURE-III**

**KEYNOTE ADDRESS OF SHRI P. K. MISHRA, IES (CPES)  
MEMBER SECRETARY, NERPC ON THE OCCASION OF  
THE 19<sup>th</sup> TCC MEETING OF  
THE NORTH EASTERN REGIONAL POWER COMMITTEE  
HELD ON 29<sup>TH</sup> NOVEMBER, 2018 IN GUWAHATI**

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**Respected Chairman, NERPC & Hon'ble Power Minister, Govt. of Meghalaya, Shri Ymbon Ji, Hon'ble Power Minister, Govt. of Tripura Shri Dey Ji being one of the oldest member of NERPC, Hon'ble Power Minister, Govt. of Nagaland, Shri Singtam Ji, Hon'ble Power Minister, Govt. of Arunachal Pradesh, Shri Taga Ji, Hon'ble Minister of State, Power Minister, Govt. of Assam, Shri Das Ji, Shri M S Rao, Principal Secretary (Power), Govt. of Meghalaya, Shri Vizo, Commissioner & Secretary (Power), Govt. of Nagaland, Shri Nongrum, TCC Chairman & Director, MePGCL and all the Senior officers from NE States, Central Utilities, Special Invitees, ladies and gentlemen.**

On behalf of NERPC Secretariat, let me first extend a very warm welcome to all the dignitaries and the senior most officers from all the utilities to the 18<sup>th</sup> NERPC meeting. I would also like to express my humble gratitude to all of you for sparing your valuable time to attend this very important NERPC meeting today. Shillong is known as Scotland of the East and I hope you have a pleasant stay in this beautiful pine city. I am pleased to inform the house that today is one of the most successful meeting as maximum number of delegates from all State & Central Utilities are present today. 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.

It gives me great pleasure in appreciating the efforts taken by Meghalaya Energy Corporation Limited in hosting the 18<sup>th</sup> TCC & NERPC Meetings today. I, on behalf of NERPC would like to convey our heartfelt gratitude to Shri E. W. Nongrum, TCC Chairman, NERPC & Director (MePGCL) and especially his teams for helping NERPC in convening the meeting in Shillong. The way you have taken care of us and making comfortable arrangement is highly appreciated by all of us.

Since time is very short, I will not prolong my address, but I would like to highlight the major activities/achievements by NERPC during the last few months.

- Status of new SLDCs in four states of NER: The SLDCs at Manipur & Mizoram have completed. The commissioning activities of SLDCs of Ar. Pradesh & Nagaland are under progress and soon the work will be completed. And by March, 2018 all NER States SLDCs will be fully functional and this is one of the biggest achievements of our region.
- With continuous persuasion of NERPC, CDAC has agreed to prepare the software for Real-Time Data Acquisition System, Real-time Energy Accounting System and Short Term Load Forecasting free of cost. Only the bare minimum hardware cost has been borne by NER States. The software will help in proper forecasting which will reduce the DSM charges and maintain the grid discipline.
- With sincere efforts of NERPC, the DPRs for implementation of ADMS project in NER have already been sent to CEA & NLDC as directed by CERC and the works will be started once the PSDF fund is received.
- NERPC has taken up the initiative for implementation of Inter-State accounting & settlement system known as SAMAST Project. SAMAST means Scheduling, Accounting, Metering And Settlement of Transactions and it is indispensable as it solves the puzzle "Who" Pays to "Whom" and for "What". During the visit of members of Honble CERC to Shillong, the issue has been raised and they have agreed to give funding form PSDF for the States to implement the project. NERPC has formed a sub-group for fast tract the project and unified DPRs is being prepared by the committee where Assam, Meghalaya & Tripura are likely to be in Phase – I followed by other NER States.
- NERPC has constituted a Committee for preparation of DPR for Installation of Power Data Management System in NER and the same has been finalized by the Committee. Once this scheme is in place, it will help the NER constituents to analyze the reasons of tripping as well as the recommendations for remedy the problems.

- To comply with the decision of 16th NERPC; first batch of Middle Management of NERPC comprising of 21 Officers has undergone training in Spain & Germany for Integration of Renewable Energy to the Grid w.e.f. 02.07.2017 to 15.07.2017.

With sincere efforts and dedications the following elements were added to NER Grid since last NERPC Meeting and this in turn has enhanced the drawing capacity as well as relieved the congestions of NER Grid.

- 132kV Roing – Tezu S/C line has been test charged on 30.03.2017.
- 132kV Pasighat – Roing line has been charged on 30.03.2017
- The 132kV Doyang – Wokha line has been charged on 26.04.2017. This is one of the old and non-function line for almost a decade but yet a very important line in Nagaland. With the available of this line the drawing capacity of Nagaland has been enhanced.
- Commissioning of 315 MVA ICT-2 at Bongaigoan GTPP on 18.02.2017, then 160MVA ICT at Balipara on 26.09.2017, then 20MVAR at Kathalguri and many small transformation capacities have added to the grid. Hence the drawing capacity has been enhanced to almost all NER States but in order to reach to the common man, Distribution Network has to be in place. I would therefore wanted to draw the attention of the August body that as all wings of power sector are under the ambit of NERPC, the DISCOMS are still with CEA HQR and hopefully for better monitoring as well as for the benefit of NER, Distribution meeting should be under the ambit of NERPC.
- Finally, the issue relating to high cost of NTPC, Bongaigoan, the Resolution signed by all the Power Ministers of NER States has finally been sent to Union Power Minister on 28.09.2017 under the guidance and signatory of Chairman, NERPC & Hon'ble Power Minsiter, Govt. of Meghalaya. We hope that GoI will look into the matter and give subsidies to Coal/Transport so that power is affordable to NER constituents. I also put on record the efforts and dedication of Shri B. Lyngkhoi, Director, NERPC for getting the signatories of all Power Ministers of NER.

- There were so many goals achieved during the last few months which I cannot mention all of them. Finally my sincere request is that all the constituents should try earnestly to liquidate their outstanding dues to the affected party so that both the parties can grow together. Unless financial transactions are happening and dues are cleared, it would be difficult to survive as utilities.

Before I conclude I would also like to mention that the progress of implementation of R&M under PSDF is very slow especially in Ar. Pradesh & Manipur. I request the Management of these two States who are present here today should look into the matter at the earliest; else the fund would be diverted to other needy States. This is also applicable to other States which 100% LOAs should be completed within October, 2017 as committed in last OCC Meeting.

On behalf of NERPC, I once again extend my heartiest greetings to all the participants and look forward to meaningful deliberation.

I wish MeECL well and the plenary a grand success.

Thank you very much.

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**ANNEXURE-IV**

**SPEECH BY SHRI H. TOVIHOTO AYEMI  
HON'BLE ADVISER (POWER) GOVT. OF NAGALAND  
ON THE OCCASION OF THE 19<sup>th</sup> MEETING OF THE  
N. E. REGIONAL POWER COMMITTEE  
HELD ON 29<sup>th</sup> NOVEMBER 2018 AT GUWAHATI**

---

Respected Chairman, Hon'ble Minister of power from North Eastern states, senior officers from various states, Ladies and Gentleman.

I take this opportunity to thank the chairman of NERPC for organizing this important Conference committee.

Well, most part of North Eastern Region were carved out of political turmoil, social geography and ethnic consideration and till date actual infrastructural development is yet to take place. For decades, only few and little infrastructural could be created at high cost in North eastern region as governance was focused mainly on handling law and order problems. But today our North Eastern Region is peaceful, our youth are progressive and therefor all North Eastern States should join hands to ask the government of India to provide additional financial assistance to narrow down the developmental gaps that exist in comparison with the mainland. It is felt that the benefit of a growing economy of the country should be shared with the small and under development States of North Eastern Region and I fell India as a country can truly be called a development country only when North Eastern Region prosper in every way.

Let me take this opportunity to share in brief some few issues on power sector initiative in my state:

- We appreciate the step taken by the government of India to provide Power for all by 2019-19 and we hope that this initiative which is in the right direction will bring about equitable development in power sector across the country. However, we fell that the government of India should be more generous in funding project in generation, transmission and distribution capacity to enable us to take on gradual load growth and demand.

- As on date Nagaland has only few state own Small Hydro Project (SHP) in operation accounting for 26.7 MW and the state is totally dependent on its share of allocation from central sector. The state is facing acute power crisis during dry season as the government cannot afford to buy expensive power from market and only by generation of state own hydro generation capacity, the financial health of the state power utility can be stabilized. There is high potential of Small Hydro Electricity Project (SHEP) in the state and the department has now identified various viable hydro potential locations and we are referring the matter to Ministry of Power, Govt. of India for funding. However we feel that the present pattern of financial support of the Ministry of New and Renewable Energy (MNRE), New Delhi is grossly inadequate and it is leaving us to seek additional fund from NEC/DoNER or other financial institution for gap funding. Therefore the current funding ceiling limit on Small Hydro Electricity Project(SHEP) should be immediately lifted and based on merit there should be 100% funding by the Ministry of New and Renewable Energy.
- Currently in Nagaland, the small allocation of power from NTPC is being supplied during off peak hours and during off peak hours it is being withdrawn and this practise is not only severely impacting our commercial performance but it is also hampering power supply to rural areas.
- The state transmission network is now been upgraded through World Bank funded schemes of NERPSIP and this initiative will take care of most of the transmission requirement of the state. However, the existing transmission systems which are not covered under NERPSIP need complete overhauling and herein additional funding support from government of India will be required.
- Under integrated Power Development Scheme (IPDS), 12 towns are being covered however we need to ask the government of India to cover the entire census town through IPDS scheme.
- Currently the Ministry of Power, Government of India is trying to cover all the households with electricity connections and the state of Nagaland is also

going to complete 100% households electrifications by 31st December however since village will continue to grow we feel that the government of India should continue to extend more financial support to meet the ever growing requirement of rural areas.

- In the state of Nagaland, the AT&C loss is very high and it appears that checking revenue loss by manual intervention will take many years, therefore the state is now planning to go for large scale prepaid metering system and for that special request has been made to Ministry of Power, Govt. of India for funding.
- Nagaland is one of the few states where activities of generation, transmission and distribution are solely managed by the state power department and earlier the state had not entered into UDAY agreement, However, on 20th November 2017 the state has entered into agreement with Government of India and benefits have started coming.
- The state is not having significant coal reserve and there is no thermal plant as on date. We are aware of our commitment towards reducing global warming and promotion of renewable energy is our top priority. The state is also inclined to promotion green and clean energy and therefore the state is encouraging more of new renewable energy.
- Well today the Power Grid Corporation of India Limited (PGCIL) which is an Indian state-owned electric utility company boast of transmitting about 50% of the total power generated in India on its transmission network where as there is very little presence Power Grid Corporation of India Limited in the state of Nagaland and they should be asked to pay equal attention to all the states otherwise the policy of 24x7 power for all is going to happen only in few states of India.
- At present in my state there are many officials who are not properly trained and the current policy of calling few officers or official to very far away places for training is not practical and it should be stopped. Instead proper training facility should be set up and resource persons should be send to North

Eastern Region to locally train employees otherwise we will land up having two categories of states-one having 100% power supply and the other having limited power supply.

My dear friend, we all know that India is a big country, with huge natural resources and skilled manpower and it is also well on its way to become a great nation. But amongst States in India there is wide gap in term of infrastructure development, availability of resources and other development parameters. In general, the North Eastern Region is development deficit States and therefore it is felt that the government of India should give preference to North Eastern States while framing policy, funding and action plan of power projects. I believe all other North Eastern States are facing acute problem due to shortfall in funding of various power projects and we are indeed tired of asking gap funding from NEC, DoNER and other financial institution. Therefore it is time that Ministry of Power and Ministry of New and Renewable Energy (MNRE), New Delhi should change the present pattern of partial funding. In doing so the Government of India will be fulfilling Act East Policy and North Eastern Region will be getting complete power facility for the overall socio- economic development.

In conclusion, on behalf of the government of Nagaland, I would like to thank the NERPC for giving me this wonderful opportunity to share my view and concerns.

Thank you and may Almighty God Bless You.

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**ANNEXURE-V**

**SPPECH OF SHRI JAMES K SANGMA  
CHAIRMAN, NERPC  
&  
HON'BLE POWER MINISTER, GOVT. OF MEGHALAYA  
ON THE OCCASION OF THE 19<sup>th</sup> MEETING OF THE  
N. E. REGIONAL POWER COMMITTEE  
HELD ON 29<sup>th</sup> NOVEMBER 2018 AT GUWAHATI**

---

My colleague Ministers from other North-Eastern States, officials of the Central Government and State Government, officials from other Central and State power utilities, Distinguished Guests, Special invitees, Ladies and Gentlemen.

2. First of all, I sincerely thank the POWER GRID CORPORATION OF INDIA for organizing this meeting and making all necessary arrangements in such a grant manner. I also take this opportunity to thank NERPC for the continuous efforts, support and assistance in the power sector for the benefit of the Region.
3. It is indeed a great pleasure for me to be in this august gathering on the occasion of the 19th North Eastern Regional Power Committee (NERPC) meeting and I hope that this particular meeting will address many of the pertinent issues affecting the power sector in the NE region. We are all aware that NERPC, since its formation, has been relentlessly striving towards making the NER power system operations reliable, efficient and economical. I hope that the outcome of the discussions today will significantly contribute towards an efficient power system in this region. This is imperative if we are to achieve our common objective of providing 24X7 Power for All at an affordable price.
4. I am very grateful to the Government of India for extending its support to NER especially in regards to the power sector and I hope that the same spirit will continue till NER has reached the same playing field with the rest of the country. The funding from PSDF has been a big relief for cash starved States

in the NER and many projects have been completed under this fund. The major concern now is the communication sector where reliable communication is the top priority. Govt. of India should also extend support in this sector at 100% grant funding so that telemetry's availability can be achieved as per CERC's guidelines i.e. 99.9%.

5. The Row is also one of the major issues in the region, be it existing lines or new lines. Some areas especially in Udalguri & Lower Assam where the existing +/- 800 kv HVDC BNC-Agra line & 400 kv D/C Quad Balipara-Bongaigaon lines and Hailakandi & Karimganj in Barak valley where patrolling, regular vegetation/ clearance could not be carried out due to obstructions from local villagers.
6. Sikkim has now for quite some time been considered as the Eighth Sister in the NER. It is also a member State of NEC/DoNER where many development project are been funded from NEC. I feel and see no reason why Sikkim should not be included as member of the NERPC so that existing and upcoming power projects in Sikkim can be availed by NER States.
7. The geographical isolation of the North East has given rise to many issues which are region specific in nature and thus we have many challenges that we need to tackle and overcome together.
8. One of the challenges is the availability of reputed vendors in the Region. Through experience we have observed that it is very difficult to get good vendors especially for high technology and sophisticated equipment or solution. And whenever, these vendors do respond, they always quote or charge exorbitant and unreasonable rates. Unfortunately, by the time we get the rates/prices approved by the competent authority, valuable time has already been wasted in the process resulting in the delay of the execution of the schemes. We should therefore as a body of NERPC take up this issue collectively by asking this firms/vendors to set up their unit in NER. This, I believe will ease many utilities even in maintenance of the project.

9. Another problem faced in NER is the acute shortage of manpower. No doubt that the power supply availability has improved by leaps and bounds but sadly manpower still remains disproportionately the same. We understand that unless this issue is addressed the power sector will continue to face uphill challenges.
  
10. Capacity Building: I find that this is one of the most important part in the growth of any Engineering organization. Unlike in the past where conventional power was abundant and widely used, these days, with the development of new technology in relation to Renewable Energy (RE), we are realizing that RE will now be the game changer in the near future as far as power sector is concerned. Here, we need to get ourselves up to date so that the MI (Man-Machine) interface can be smooth. For that, I feel that constant training of our officers is a must. As the chairman of NERPC I will be taking up this important matter with the Ministry of power to pursue Capacity building in our region in right earnest.

I would also like to mention here the need for the development of skilled manpower in the NE region. Many construction activities in generation, transmission etc., are being carried out by skilled people from other regions. This is an area which provides for an opportunity for creation of jobs for the people, particularly the youths of the NE Region. NERPC Secretariat may look into the matter and explore the possibilities to provide relevant skills to the unemployment youth of the region, so that these job opportunities can be given to the youth of the N.E. Region. This agenda item together with the related proposal may be put up in the next NERPC meeting.

This region is endowed with so much of abundant resources for development of power, particularly hydro potential. However, most of these resources are yet to be tapped. It is therefore imperative that we urge the Government of India to give a special focus on the overall development of the power sector in the NE Region. I anticipate that there had been fruitful deliberations and recommendations in the Technical Coordination Committee (TCC) meeting yesterday, which will benefit all the NE States. And today, I hope we shall be able to sort out important issues

which require the special attention of the Government of India, for the development of the power sector of the NE Region.

On behalf of NERPC, I once again extend my heartiest greetings to all the participants and look forward to meaningful deliberations.

I would also like to take this opportunity as Power Minister of Meghalaya to state a few points pertaining to my State:

1. The Generation sector in the state in the state of Meghalaya, is handled by the state owned Generation Corporation viz. Meghalaya Power Generation Corporation Ltd. (MePGCL) and the power requirement is met from the State's own generation as well the allocation power share from Central Generating stations. Meghalaya Power Generation Corporation Limited (MePGCL) is contributing more than half of the energy required in the State.
2. There 8 (eight) generation stations with a total installed Capacity of 354.70MW and generating about 1200 Million Units (MU) of energy annually. Out of these 8 (eight) station, the New Umtru Hydro Electric Project (NUHEP), with an installed capacity of 2x20MW, was recently commissioned and put into commercial operation in July 2017.
3. In order to increase power generation in Meghalaya, MePGCL has taken keen interest to harness some of the available hydro-electric potential in the state. Presently, there are three projects which are under construction viz. Lakhor MHP (1.5MW), Ganol SHP (3x7.5MW) and Riangdo SHP (3MW). The total capacity addition, once these projects are commissioned, will increase the total installed capacity under MePGCL from 354.70MW to 381.7MW.
4. Besides implementation of the hydro power projects, Meghalaya Power Generation Corporation Ltd. (MePGCL) is also taking up survey & investigation of Small, Medium and Large Hydro Project. Medium and Large Projects, totalling to about 749MW, are being surveyed and investigated with funds from NEC; while Small Hydro Projects totalling to 80.7 MW are being surveyed and investigated with funds from MNRE.

5. Meghalaya has also priorities for the Renovation, Modernization and up-gradation of existing Hydro Power Stations. The R & M works including Upgrading two power stations have already been completed. At present, the state government is pursuing vigorously for the Renovation and Modernization of Umiam Stage-III power station (2x30MW) which was commissioned in the year 1979. Preliminary studies for exploring the possibility of undertaking Renovation and Modernization of Umtru Power Station (4x2.8MW) which was commissioned in the year 1957 is also being pursued for funding from External source.
6. The Government of Meghalaya has envisaged development of Solar Power Parks in the state. At present development of two Solar Parks of 10MW capacity each, is being taken by the state at Suchen and Thamar village in East and West Jaintia Hills District respectively totalling to 20MW.
7. The Transmission Sector in the state of Meghalaya is being strengthened and expanded through various schemes, including North Eastern Region Power System Improvement Project (NERPSIP). Several proposals pertaining to the transmission sector in Meghalaya, including reliable communication & data acquisition, re-conductoring of old lines with HTLS conductor, requirement of OPGW for Line Differential Protection; SAMAST implementation; LILO of 132 KV Kahilipara – Umtru double circuit line at Killing sub-station; etc, have been included. We therefore urge upon the committee to endorse these proposals, which are vital to transmission system capacity and reliability in our state. Furthermore, I also propose that this committee endorse our proposal to review the funding norm under PSDF, to facilitate expeditious execution of PSDF schemes.
8. The Distribution Sector is the most critical segment of the entire power supply value chain. Accordingly. The Govt. of India has been much emphasis to the development of this sector, through system improvement schemes and electrification scheme, such as DDUGJY, NERPSIP, IPDS and SAUBHAGYA, with the aim of providing 24x7 power for all by 2019. The Hon'ble Chief Minister of Meghalaya in the presence the Hon'ble Union Minister of state, I/c

power had launched the "SAUBHAGYA" scheme, for the electrification of all households in the entire state of Meghalaya. It is imperative that the sub-transmission system, which is the back bone of the distribution network, be upgraded and strengthened. It is a challenge that we must all endeavour to face in order to meet the increasing demand for power and to ensure reliable power supply to all the nooks and corners of the NE Region.

Well, with these words I once again thank each and every one of you and I look forward to a fruitful discussion as a team working with one common goal and objective for the NER.

THANK YOU

I wish you all a great success in this meeting.

**SPEECH OF SHRI TAMIYO TAGA  
HON'BLE POWER MINISTER, GOVT. OF ARUNACHAL PRADESH  
ON THE OCCASION OF THE 19<sup>th</sup> MEETING OF THE  
N. E. REGIONAL POWER COMMITTEE  
HELD ON 29<sup>th</sup> NOVEMBER 2018 AT GUWAHATI**

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Hon'ble Chairman of NERPC, Power Ministers from North Eastern States, NERPC Members, Central and State Government officials and distinguished Guests & Special Invitees, Ladies and Gentlemen.

I am privileged to attend the 19th North Eastern Regional Power Committee Meeting amidst the wonderful and beautiful people of Assam in Guwahati- the city popularly known as the gate way of North East India. This is my second opportunity to be in this August forum and I thank the North Eastern Regional Power Committee for organizing this meeting here. I also thank Power Grid Corporation of India Ltd for their magnanimity for hosting this momentous event.

Arunachal Pradesh is the largest State in the region geographically but has one of the smallest Power System. Despite that, it had its own stride of development in the power sector and its immense contribution to the regional benefits in its own way and pace. It has boundless natural endowments like enormous hydro power potential reserves which can make the North East a game changer in power sector industry in the country. Such natural gift to the region is an opportunity for all of us to become the highest hydro power producer not only in India but also in the international electricity market as well. I believe and have faith in this august forum of NERPC that it will have pragmatic and futuristic policy approach to help each state of the region to achieve its goal and make NER capable of writing its own story of success in the power sector at local and global electricity market. Let us endeavour to write our own rather than reading others.

As a responsible citizen of this country, I always feel the pain deep inside me whenever our scarce resource is wasted due to human errors or inefficiencies. The feeling is more so true when it come to the loss of electrical energy wasted as Aggregate Technical and Commercial loss, which is often referred to as AT&C loss in short. It is unthinkable that we are not taking enough actions to stop this wastage.

When there are means and way to contain this loss, why aren't we trying? We must act not only to reduce the loss but to be proactively conscious to sustain without avoidable losses. I do believe that we too have brains amongst the best, ideas and technologies. Still we are not being able to contain the huge AT&C losses prevailing in our region. As per UDAY Portal of Ministry of Power, GOI, average AT&C loss of the NER is about 41% as against national average of 22.99%. As per this portal Assam leads the region with lowest AT&C loss with 21.82% and Arunachal Pradesh is lagging much behind with the highest of 65.45%. There is a big margin and we need to work hard to catch up with the nation. So, I appeal to all of you here in this august gathering to rekindle your own thought process and attitude towards this menace and resolve our self to contain this AT&C loss to acceptable limit. Let us begin and prove it is the rest of the country and the world that we, the NER people, are not behind but can lead the way in many fronts. I request NERPC to take proactive initiative and to become a herald, a harbinger to lead the way in achieving the loss reduction to acceptable limits. I am very concerned and serious about containing this loss for which I request the NERPC forum to help and guide the states in achieving its target. Towards this goal I am always with the forum.

In today's Hi-Tech driven world, DATA is the only food for technology. No technology is of any use if it hasn't had its own share of sufficient data input. Power transmission system is no exception to this. Efficient data acquisition is possible only if a reliable medium for data flow exists. In my state we have proposed for laying fibre optic across the network of state's transmission system under Reliable Communication & data acquisition Scheme to be funded under Power System Development Fund. Accordingly, a DPR was submitted only to be returned to us stating that only 50% of the cost would be eligible for grant under PSDF. Rest of the 50% would have to be borne out of state's own resource. As like most of the states of the region, resources are limited and allocating such huge fund is simply not possible. As a result, the proposed project had to take a back seat for the moment and may have to be shelved if no fund for rest of the 50% is available. This situation has put us in a very dicey situation with regulatory framework on one hand and non-availability of fund on the other. Regulations mandate that there should be almost 100% availability of communication. But to achieve this, a lot of funding is needed. I believe, it is not a case specific to Arunachal Pradesh alone. Most of the member states must be having the same difficulties which make them unable to

implement reliable communication and data acquisition schemes. Therefore, I appeal this forum, especially the NERPC, to act as the conduit to the MOP, GOI, to explain the situation and convinced them of what we are facing today and provide 100% funding. I, as a member of this forum and a representative of my state government assure you of all supports. Let us all stand together and fight unitedly for the common cause and for betterment of NER grid.

Strengthening the State Load Dispatch Centre of Arunachal Pradesh has been one of the priority sectors of my government. In this field we have made our own share of strides and successes of good beginning. Recently SCADA system could be successfully commissioned at Itanagar despite major shortcoming of building and space. I would like to thank NERPC, POWERGRID and POSOCO for achieving this success amidst all odds and difficulties. I thank NERLDC Shillong for their continuous unconditional support to my state in setting up the SLDC and training of its officers free of cost. I am confident such support will be extended continuously in the future to come. I am also happy to inform that Arunachal Pradesh SLDC would be having its establishment separately in its own complex very soon within three to four years. Foundation has already been laid by the Hon'ble Chief Minister, Sri Pema Khanduju. I appeal to all stake holders, especially the POSOCO, NERLDC, and NERPC to give input in building up a strong and robust system in the state's upcoming SLDC. Ability to support and maintain a highly skilled and trained human resource intact, probably, is the only crucial factor in achieving that goal. Incentivizing, training and ring fencing of SLDC must be done as per Pradhan Committee report. In doing this, a good amount of fund would have to be invested and state like that of Arunachal Pradesh cannot afford. Therefore, I propose POSOCO to help the states under Load Dispatch Centre Development Fund (LDCDF). The Assistance could be in the form of Services, intensive capacity building, development of assets, hardware and software etc.

Comprehensive scheme for development of transmission and distribution in Arunachal Pradesh has been in operation under POWERGRID for the last few years. This project was sanctioned under North Eastern Regional Power System Improvement Program by the Government of India. Despite the project being executed by a giant transmission utility like POWERGRID; it could not make any appreciable progress. The reasons could be of various natures and factors. From what I have been made to understand that the main reason started to be is the very

low rate in cost estimation and therefore tendering processes couldn't make much way due to lack of talkers. I am also made to understand that the cost estimation of the project is being revised to more than double the original cost even before the project could take off with desired momentum. That led me to suspect with pain that there must have been serious lapses somewhere. POWERGRID may need to have a retrospection to find where the lapses were.

One of the simple reasons, as I could perceive, could be for the absence of participation of local people who are acquainted with the local constraints and circumstances of the area in term of employment opportunity, specially, at the higher and middle management level in the organizational set up. Our engineers are no less inferior to others; only the lack of opportunities prevents them from displaying their talents and capabilities. I may not be wrong, though with my little knowledge of the MOA signed between the POWERGRID and DOP, Govt. of Arunachal Pradesh, to say that there are ample provisions for drawing engineers from the Dept. of power on deputation. There are also specific provisions for employing engineers from the state. It is high time for POWERGRID to put its minds together and ponder over the issue. Employing local engineers from the Department at higher and middle management level by way of deputation and employing more local engineers and youth of the state at lower level shall not only be in the interest if the project but for reputation of the POWERGRID and the state. Instead of adopting a spoon feeding approach, let us shift to the proven principle of learning through doing. This will be of great advantage in many ways for the all the players in the scheme implementation and the beneficiaries. In the first place, POWEERGRID would be benefited as the field level execution of the works would be carried out by these local managers who known their land and its people better than anybody else. They would know well where the shoe pinches. Most importantly, such an arrangement would pave the way for a smooth and meaningful transition of assets and their management from POWERGRID to Department of power. The assets are ultimately to be handed over to the Department of power, Government of AP for operation and maintenance. POWERGRID must rise beyond commerce and economics at times when the call is technical requirement. Dumping the asset to the state beneficiary in piecemeal manner could be disastrous for all of us. I request the Power System Planner in this forum to ponder over the issue and make realise that the asset created under the

scheme needs to be handed over as a working system rather than simply as a completed asset. Skill development of human resource and training is an indispensable ingredient of successful project implementation. I appeal to the POWERGRID to take steps to impart training to DOP, AP. The training would be preferable if customized for DOP requirement and done in - house.

Under north East Region System Strengthening Program, M/S Starlite was to execute 132KV Biswanath Chariali to Itanagar Double Circuit Line to be built on tariff based Competitive bidding. It has been quite sometimes the work was awarded to the firm but I have not noticed any progress of any level in the ground. With the implementation of this scheme Arunachal Pradesh, especially the capital complex would be immensely benefited as it would enhance much needed redundancy of transmission system in the state. This would increase the reliability of AP Grid system to a much required higher level. All the flagship programs of GOI towards providing 24X7 electricity to its citizen like DDUGVY, RADPRP, IPDS, SAUBHAGYA etc. shall be feasible only on achieving a high reliability of grid System. I request this august forum to deliberate on expediting the completion of the project.

Presently, Arunachal Pradesh has a long radial line from Ranganadi to Namsai traversing almost half the length of the state. This has drastically reduced the reliability of the transmission system much beyond acceptable limits. This must end at the earliest. I am happy that the 7th Standing Committee of Power System Planning has cleared the establishment of Roing(AP)-Chapakhowa(Assam) 132 KV as an ISTS project. However, this project to benefit Arunachal Pradesh, Rupai-Chapakhowa 132 KV line under implementation by Assam must be completed early. I urge upon NERPC to give a serious thought for a Roing- Chapakhowa 132 KV transmission line to be completed simultaneously so that the connectivity is ready by the time Assam completes its portion.

When I talk of reliability in the AP Grid, I am not satisfied with giving second connectivity to Roing via Chapakhowa only. At time of system failures taking place at the Ranganadi end, the entire length of transmission system of AP shall be reduced to another two long radial feeders making the system reliability vulnerable. Therefore, I reiterate the need to connect Namsai to AGBPP at Kathalguri. I request the NERPC to constitute a committee to study the feasibility of this proposed connectivity.

600 MW Kameng Hydro Electric Project is at the verge of being commissioned. The 7th Standing Committee has cleared for handing over of Balipara-Khupi 132 KV transmission line to the Department of Power AP for which I express my sincere thanks to the Standing Committee and the NERPC. I request all the stake holders, specially the NEEPCO to take proactive initiative to handover the transmission line to DOP, AP has agreed by all in the recently meeting organised by CEA recently in New Delhi in compliance to 7th Standing Committee decision. I urge upon NERPC forum to facilitate early transfer of the asset between DOP, AP and NEEPCO.

I am also happy to learn that 7th Standing Committee meeting has cleared the establishment of Khupi-Bomdila-Tawang 132 KV transmission line and Bomdila-Kalaktang 132KV transmission under Comprehensive Scheme. I hope that this forum had discussed the matter in the TCC for final approval by the RPC. I request the entire constituent to support Arunachal Pradesh. Though it is great to learn that 132KV transmission line would be taken to one of the most beautiful tourist destination of the region, the reliability of the system could become an issue being a long radial feeder. That could further be aggravated by the condition of the area it would be passing through and shall be treacherous to the system as well as the O&M staff.

Therefore, to overcome this bottleneck, I would like to propose NERPC to consider the establishment of a suitable transmission line between Tawang (India) and Bhutan. 600 MW Kholongchu Hydro Power Station in Bhutan is away from India by few tens of Kilometres. Apart from improving the reliability in the sector, it will increase the bilateral exchange of energy in time of needs and enhance the old age good bilateral relationship with Bhutan. I propose the planners and the stake holder present, especially the NERPC, in this august gathering to carry out a feasibility study on the issue and come out with a tangible policy decision as a precursor towards achieving that target. My unconditional support towards this is guaranteed and I believe the members of this Regional Committee will support this idea and help it make to a pragmatic initiative.

With these opinions and issues, I thank you all with request to support Arunachal Pradesh. My State is a beautiful land and would request you to visit us. We will be happy host you any time.

JAI HIND!

**ANNEXURE-VII**

**SPEECH OF SHRI TAPON KR. GOGOI  
HON'BLE POWER MINISTER, GOVT. OF ASSAM  
ON THE OCCASION OF THE 19<sup>th</sup> MEETING OF THE  
N. E. REGIONAL POWER COMMITTEE  
HELD ON 29<sup>th</sup> NOVEMBER 2018 AT GUWAHATI**

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Chairman, NERPC, my counterparts from other North Eastern States, officials from different Central and State Governments as well as other Central and State utilities, ladies and gentlemen.

At the beginning I thank POWERGRID for organizing this meeting and providing the opportunity to the NER States to deliberate and discuss important issues which are critical for the development of the NER power sector in particular and also for the country as a whole.

In the last few months my state has faced serious challenges to mitigate the system constraints in view of increased load demand due to factors such as industrialization, change in life style of people on one hand and augmentation and strengthening of network under flagship programs like DDUGJY, RAPDRP, IPDS, GSA and SAUBHAGYA Scheme, ADB funded projects along with many other State Govt. sponsored projects.

Peak demand in my state has breached 1850 MW. Our own generation being less than 300 MW we have signed PPAs' with various ISGS to fulfil our requirement . But delay in commissioning of some of the projects in this region has caused acute problem in meeting the increasing demand of the state. We are also trading power regularly from power exchange to meet the shortfall on day to day basis, cost of which sometimes crosses the bearable limit of our capacity. This will eventually cause an increase in the tariff of electricity which will have to be borne by the ultimate consumers of the state. This forum may deliberate on this issue keeping in mind the general interest of the people of the region.

As you are aware, our government under the noble leadership of Shri. Sarbananda Sonowalji, Hon'ble Chief Minister of Assam, has decided to accord top priority to the power sector through various schemes and projects, I would like to mention a few notable landmarks during the tenure of our government.

- Joined the UDAY scheme on 04.01.2017
- Notification of Assam Solar Energy Policy, 2017.
- Distribution of energy efficient LED bulbs to all households.

#### 24x7 Power for all in Assam

Our Govt. is committed to provide 24x7 uninterrupted and high quality power to the people to the people of Assam. To provide 24x7 power supply to all households all over the state and to make the state power surplus, the first issue of concern is improving our own generation capacity. Unfortunately, some of our generation replacement projects as well as initiation of new projects have been delayed. To ensure stable 24x7 power, more capacity addition in internal generation is required.

A major issue of concern is to keep the transmission and distribution network operational on a 24x7 basis. Our distribution network like similar networks elsewhere is not foolproof and requires preventive as well as breakdown maintenance. Unless the distribution sector is made robust and financially sustainable, large investment made in the generation sector will face the spectre of nonperforming assets (NPAs). To make distribution sector robust and financially sustaining, the state will have to brace for more structural reforms which should focus on the development of the distribution sector as a whole and not only for the benefit of a section of the consumer categories. In my state, we have estimated that in addition to the ongoing investments in RAPDRP, DDUGJY and IPDS, massive additional funding will be required to make our network strong and sustainable.

#### **RAPDRP and IPDS**

Under R-APDRP and IPDS Schemes we have already managed to establish Data Center and Data Recovery Center at Guwahati and Agartala respectively for the entire NER. These state of the art facilities shall go a long way in supporting IT initiatives to state Discoms. Assam shall continue to discharge its responsibility under the scheme for maintaining and expansion of the IT infrastructure. We are also access to build on our experiences gained under Smart Grid Project.

#### **Rural Electrification**

More than 90% of our consumers belong to lower economic category and avail Govt. subsidies. However there are many who are not covered by electrification. We are

striving to achieve 100% household electrification by 31st December, 2018. It is hoped that under DDUGJY, DDG and the recently launched SAUBHAGYA and GSA scheme, the Hon'ble PM's target of 100% electrification shall be a reality soon.

### **Renewable Energy**

Assam has renewable energy potential in the form of solar, wind, biomass and small Hydro energy. The state's potential from RE sources is as follows: Solar- 13.76 GWp, Wind- 112MW, Biomass- 165.5 MW and small hydro- 91.5 MW.

I am also delighted to share with the members present here that our grid interactive solar rooftop program has become a reality. We are also coming out with a Solar Policy for promotion of investment in New and Renewable energy sector. Assam being committed to the RPO targets placed by MNRE and Regulatory Commission is also looking forward for making effective forays into this upcoming area.

Assam Discom (APDCL) has already signed PPA for 100 MW of Solar Power Developers for development of ground mounted Solar power plants at different parts of Assam on 25.06.2018 for 25 years at discovered tariff of Rs. 3.70 per unit (25MW), Rs. 3.24 per unit(25 MW), Rs. 3.20 per unit (25 MW), Rs. 3.19 per unit (10 MW), Rs. 3.17 per unit (25 MW). It is very pleasing to intimate the august gathering that this bidding at DEEP portal of Ministry of Power is maiden venture of such nature till date.

We are in the process of setting up of 70 MW Solar Park at Amguri in Upper Assam. Further, arrangements are being made to source renewable energy from other parts of the country at competitive tariffs.

The generating company (APGCL) has planned for developing Small Hydro Plant (SHP) in the State. The small Hydro Power Policy notified by the State Government includes 90 potential small hydro generating stations ranging from 0.1 MW to 20MW (totalling to 148.50 MW), in different parts of the state. However, out of the 148.50 MW only 91.5 MW has the proven potential for small hydro power as per recent investigations carried out.

The high cost of power from Bg TPP is a common problem for all the states of this region including Assam. This forum should evolve a viable and lasting solution to

this so that the ultimate consumers are not loaded with excessive tariff due to this high cost of generation.

Lastly with regard to the transmission sector, I have been advocating or creation of a robust transmission system within the region as well as inter regional links with 90% grant from the Central Government. This is the only possible way to accelerate the pace of capacity addition in the region. The rapid load growth projected for the coming year requires unrelenting efforts for up gradation of system capacity. The transmission system is being consistently maintained at an availability of above 98 percent which is at par with the national standard.

Presently, the intra-state transmission system handled power more than 1800 MW. As per 19<sup>th</sup> EPS, the peak electricity demand of Assam will be 2713 MW in 2021-22. To enable the state owned transmission utility AEGCL to handle the growing peak demand, Govt. of India may extend immediate support to bring in funds from Externally Aided Sources.

AEGCL has envisaged an ambitious plan for expansion and augmentation of its transmission network in the coming five years. The present load handling capacity of 2160 MW is intended to be enhanced to 6000 MW by the year 2022-23. AEGCL has also finalized a plan to earn a substantial part of its revenue requirement by way of leasing its massive OPGW communication network to the telecom and internet service providers of the country.

Power Grid Corporation of India Limited, has developed a comprehensive transmission system including number of 400 KV networks connecting NER with Eastern Region(ER) and 765 KV Bishawanath Chariali\_Agra HVDC Link connecting the NER with Northern Region (NR).

Due to difficult geo-spatial location, the transmission charges payable to CTU in NER is relatively higher than other regions since inception. Because of this mismatch in energy generation and corresponding investment in associated transmission assets, the transmission charges were shared equally by all Regional Beneficiaries. However with the switching over of sharing of Transmission Charge mechanism to the new one called point of connection (PoC) sensitive to distance,

direction and quantum: the transmission charge payable to CTU has increased exorbitantly for certain states of NER.

As per pre-requisite mandate of Electricity Act, 2003, supply of electricity at a reasonable rate to ultimate consumers is essential for overall development of the country. Keeping this in mind, consistency is needed to be maintained in transmission pricing framework interstate as well as intra-state systems. As per regulatory provisions, the Honorable CERC and the Ministry of Power, GOI have arranged public hearings for getting views of utilities on the present form of PoC. But the final decision on existing PoC either by CERC or MoP is still to be declared. In the light of this mandate. It is urged to this August Forum to ponder over this issue and take immediate necessary steps to bring down the transmission tariff to a uniform and affordable level with immediate effect.

In conclusion, I want to reiterate that our goal is to self-sufficiency in Power Sector. With the support from Government of India, Assam's energy future will be secure and sustainable. I assure that our state will extend its fullest support to any project or scheme to achieve the goal "Power for ALL".

While congratulating hon'ble Union Minister of Power for the successful conduct of the Power Ministers' conference under his leadership, I take this opportunity to convey my sincere thanks to Ministry of Power for taking the initiative for convening the meeting. I also thank the Central Power Sector Units and all concerned.

**JAI HIND**

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**ANNEXURE-B.02**

**LIST OF LINKS WITH NO OPGW/REDUNDANT PATH UNDER NER REGION**

S. No.	Name of Link	From	To	Voltage in kV	Length in Kms
1	Mariani (new)- Misa II	Mariani (new)	Misa	400	223
2	Bongaigaon III (quad)-Balipara	Bongaigaon	Balipara	400	309
3	Misa - Kopli	Misa	Kopli	220	73
4	Jiribam - Haflong	Jiribam	Haflong	132	101
5	BiswanathChariali - BiswanathChariali(Pavoi)	Biswanath Chariali	Biswanath Chariali (Pavoi)	132	13
6	Balipara-Bongaigaon Ckt1/2	Balipara	Bong	400	290
7	Kopili-Khandong--(other circuit)	Kopili	Kopili	132	12
8	Khandong-Khliehriat(Other circuit)	Khandong	Khliehriat	132	43
9	Aizawal-Jiribam	Aizwal	Jiribam	132	175
				<b>Total</b>	<b>1238</b>

ANNEXURE-D.08

**PART – 1: SUPPLY & ERECTION BY M/S KEC**

SN	Link Name	Sector	OPGW Erection (in KM)	Remarks / Status
1	132KV Silchar (PG)-Badarpur (PG)	Central Sector	19.221	Completed
2	132kV Badarpur-Kolasib	Central Sector	106.759	completed
3	132kV Kolasib-Aizawl	Central Sector	65.732	Completed
4	132kV Nehu-KhelieriatPart	Central Sector	5.400	Completed
5	220KV Misa-Samaguri	Central Sector	34.373	Completed
6	400KV BTPS-Salakati via NTPC	Central Sector	3.490	Completed
7	132kV Badarur(PG)-Badarpur(AEGCL)	Central Sector	1.023	Completed
Sub Total (A) = TOTAL (Central Sector) =			235.998	
8	132KV Pailapool-Srikona	AEGCL	33.692	OPGW link of 132kV Badarur(AEGCL)-Srikona(AEGCL) is down due to Tower failure. Although all AEGCL nodes are reporting.
9	132kV Jiribam-Pailapool	AEGCL	12.752	
10	132kV Badarur(AEGCL)-Srikona(AEGCL)	AEGCL	19.586	
11	132KV Balipara-Gohpur	AEGCL	101.124	Completed
12	132kV S/C Mariani - Lakwa TL	AEGCL	79.298	Completed
13	132kV D/C Lakwa - Namrup TL	AEGCL	58.394	Completed
14	220kV Agia-Sarusujai (with LILO at Boko, Mirza)	AEGCL	130.706	Rectification work is in progress.. Completion Target: Dec 18
15	132KV Namrup-Tinsukia	AEGCL	43.571	
16	220kV BTPS-Agia	AEGCL	65.732	
17	220kV S/C Samaguri - Mariani TL (CKT - II)	AEGCL	169.717	
Sub Total (B) = TOTAL (State Sector) =			714.572	
Grand Total (Sub Total A+B) =			950.570	

**All Links completed, Target Completion of rectification: Dec-18**

**PART – 2: SUPPLY BY M/S KEC & ERECTION BY M/S TENDOT**

SN	Link Name	Sector	OPGW Erection (in KM)	Remarks / Status
1	132KV Mariani-Mariani	CS	1.521	Supply Completed. Erection 80% Completed, Splicing pending-water logging & ROW due to ripe peddy. Completion  Target: March'19  Equipment (SDH-PDH) of end nodes wrt these links is considered in LOA under NER FO EXPANSION Project.
2	132KV Nirjuli-Ranganadi with Parey	CS	23.492	
3	Imphal(PG)-Imphal (State)	CS	0.769	
4	132KV LILO of Aizawl- Zemabawk-II at Melriat SS	CS	4.959	
5	132KV Melriat-Shimmui	CS	6.441	
6	132KV Mokokchung- Mokokchung	CS	1.443	
7	Ranganadi-Gohpur (Part-I)	CS	61.239	
8	Ranganadi-Gohpur (Part-II)	CS	12.033	
9	Aizawl-Zemabawk-II	CS	6.719	
10	Dimapur-Dimapur	CS	0.647	
11	132kV Ranganadi-Ziro	CS	44.292	
12	132KV Lekhi-Itanagar/Chimpu SLDC	CS	13.631	
13	132KV LILO of Nirjuli- Ranganadi at Lekhi	CS	5.554	
14	132KV Silchar-Srikona	CS	1.199	
Grand Total =			183.939	

**NER FO EXPANSION PROJECT**

SN	Supply - Scope		Supplied Qnty	Supply Comp. target	Erection Qty (Km for OPGW and Nos for equipments)	Traget Compl.
	Location	Qnty (Km for OPGW and Nos for equipments)				
1	CS – 12 Link	737.8	598.8	March 19	265	July-19
	CS – SDH Nodes	32	32	Completed		March-19

	CS – PDH Equipments	50	50	Completed		March-19
2	CS – 5 Link	388.911	389.911	Completed	389.911	Completed. (Agencies: Taihan/Sabari)
3	Meghalaya – 4 link	63	57.126	March 19	0	July-19
	Meghalaya – SDH Nodes	5	5	Completed		July-19
	Meghalaya – PDH Equipments	16	16	Completed		July-19
4	Tripura – 12 Link	320.319	277	March 19	235.005	March-19
	Tripura – SDH Nodes	12	12	Completed		March-19
	Tripura – PDH Equipments	29	29	Completed		March-19
5	Nagaland – 3 Link	93	83	March 19	0	July-19
	Nagaland - SDH Nodes	7	7	Completed		July-19
	Nagaland -PDH Equipments	12	12	Completed		July-19
6	Manipur – 11 Link	375.626	375.626	March 19	0	July-19
	Manipur- SDH Nodes	12	12	Completed		July-19
	Manipur -PDH Equipments	24	24	Completed		July-19
7	Mizoram-1 link	1	0	March 19		March19
	Mizoram- SDH Nodes	4	4	Completed		March19
	Mizoram- PDH Equipments	8	8	Completed		March19
8	Assam-SDH Nodes	1	1	Completed		March 19
	Assam-PDH Equipments	11	11	Completed		March 19
9	AP-SDH Nodes	4	4	Completed		March 19
	AP-PDH Equipments	4	4	Completed		March 19
	Total OPGW Km	1980			889.916	

ANNEXURE-D.09


URTDSM PROJECT STATUS


SN	Equip.	Scope		Status				Status / Remarks
		Nos.	Location	Erection	SAT	Reporting/ Commission	Data Validation	
1	SPDC	1	NERLDC	1	1	1	NA	26.10.18 SAT completed.
2	PDC	1	Assam	1	1	1	NA	Completed
3	PDC	1	Meghalaya	1	1	1	NA	Completed
4	PDC	1	Arunachal	0	0	0		A.12 (Apx.8 Months from Decision)
	Total	4		3	3	3	3	
5	PMU	3	Salakati	3	3	3	3	Completed
6	PMU	6	Balipara	6	6	6	6	Completed
7	PMU	6	Bongaigaon	6	6	6	6	Completed
8	PMU	4	BNC	4	0	0	0	31.12.18
9	PMU	4	Silchar	4	4	4	4	Completed
10	PMU	7	Misa	7	7	7	6	Completed
11	PMU	3	Mariani	3	3	3	3	Completed
12	PMU	5	Dimapur	0	0	0	0	Fire Hazard - 31.01.19. Target 28.02.2019
13	PMU	1	RHEP - NEEPCO	0	0	0	0	By 15.02.2019
14	PMU	2	Kopili - NEEPCO	2	2	2	2	Completed
15	PMU	4	Samaguri - Assam	4	4	4	4	Completed
16	PMU	2	Agia - Assam	2	2	2	2	Completed
17	PMU	2	Mariani - Assam	2	2	2	2	Completed
18	PMU	2	Tinsukia - Assam	2	2	2	0	Completed
		51		45	41	41	37	

Over all Target: 31.01.2019 (except 1 no. PDC which under diversion)

**Auditors' General observations of NERPC Accounts for the period of  
FY 2016-17 & 2017-18**

1. It is appreciable that Cash book has been started for the period from 2016-17 onwards. However, general ledger also needs to be maintained & updated regularly for each Head of Accounts;
2. Bank reconciliation statement for Account maintained with the bank needs to be prepared on monthly basis and the same should be verified by the appropriate authority;
3. No record of the Annual board fund contribution by constituents has been maintained separately. In the absence of proper register/record, it is difficult to ascertain the total income or the realization/short realization of contribution during each year. It is recommended to start a separate Register for annual contribution record;

  
 जयन्त पाण्डेय (J)  
 Meghalaya Power Transmission Corporation  
 Lumjingshai, Shillong.

  
 सुमित अग्रवाल / Sumit Agarwala  
 उप प्रबंधक (वि व ले) / Dy. Manager (F&A)  
 पावरग्रिड, शिलांग / POWERGRID, Shillong

  
 सी. मंडल (ई.)  
 Sr. Manager (E)  
 कार्यपालक निदेशक (कार्यालय) का कार्यालय  
 ओरिगेनल नि. . . निदेशक  
 NERPC Ltd., Shillong

NORTH EASTERN REGIONAL POWER COMMITTEE

Receipt and Payment Account  
for the period ending 31.03.2017


Receipt		Payment	
Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Opening Balance			
Cash	457.00	Salary & Wages	528914.00
Bank	2009254.82	Bonus	10500.00
Yearly contri. from Members	3100000.00	Uniform	0.00
Contribution for App	3533000.00	Meeting exp	1367056.00
Adv. to employee	0.00	Telephone expenses	5106.00
Bank Interest	108425.00	Printing & Stationery	71335.00
Board Fund Contribution receivable	0.00	Conveyance	24000.00
		Entertainment exp	98154.00
		Misc Office exp	109586.00
		Vehicle expenses including insurance	91940.00
		Travelling exp	260430.00
		Office furnishing fund	0.00
		Driver expenses	30010.00
		Closng Balance	
		Cash	0.00
		Bank	6154105.82
<b>Total</b>	<b>8751136.82</b>		<b>8751136.82</b>


NORTH EASTERN REGIONAL POWER COMMITTEE

Inome & Expenditure Account  
for the period ending 31.03.2017

Dr.		Cr.	
Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Salary & Wages	569159.00	Yearly contri. from Members	3500000.00
Bonus	10500.00	Bank Interest	108425.00
Uniform	0.00	Contribution for App	3533000.00
Meeting exp	1367056.00		
Telephone expenses	5106.00		
Printing & Stationery	71335.00		
Conveyance	24000.00		
Entertainment exp	98154.00		
Misc Office exp	109586.00		
Vehicle expenses including insurance	91940.00		
Travelling exp	260430.00		
Driver expenses	30010.00		
Depreciation	233139.00		
Balance being the excess of income over expenditure	4271010.00		
<b>Total</b>	<b>7141425.00</b>	<b>Total</b>	<b>7141425.00</b>

  
S. Manoj (E)  
Regional Engineer (I)  
Jeghalaya Power Transmission Corporation Ltd.  
Lumjingshai, Shillong.

  
सुमित अग्रवाल/ Sumit Agarwala  
उप प्रबंधक (वि व ले)/ Dy. Manager (F&A)  
पावरग्रिड, शिलांग/POWERGRID, Shillong


  
S. Manoj (E)  
कार्यवाहक निदेशक (आयोजना) का कार्यालय  
Ojo the Executive Director (Comm)  
नीलको शि... शिलांग  
NEEPCO Ltd., Shillong

**NORTH EASTERN REGIONAL POWER COMMITTEE**

**Balancesheet as on 31.03.2017**

Liability			Assets		
31.03.16	Particulars	Amount (Rs.)	31.03.16	Particulars	Amount (Rs.)
3580709.82	Acc. Board fund Op: 3580709.82  Add: Excess of income over expenditure. 4271010.00	7851719.82		<b>Fixed assets:</b>	
			18728.00	Communication equipment 28500.00 Less Deprn. : 11576.00	16924.00
			98865.00	EDP Equipment : 259000.00 Less Deprn: Rs.198985.00	60015.00
29519.00	Salary payable	69764.00	5336.00	Office Equipment : Rs. 8120.00 Less Deprn: Rs. 3298.00	4822.00
0.00	Office furnishing fund	0.00	1477588.00	Transport Equipment : Rs. 2020742.00 Less Deprn: Rs.735125.00	1285617.00
			0.00	Board Fund Contribution receivable	400000.00
			0.00	Fixed deposit	0.00
				<b>Closing bal:</b>	
			457.00	Cash	0.00
			2009254.82	Bank	6154105.82
<b>3610228.82</b>	<b>Total</b>	<b>7921483.82</b>	<b>3610228.82</b>	<b>Total</b>	<b>7921483.82</b>

  
 Chief Engineer (I)  
 Jharkhand Power Transmission Corporation Ltd.  
 Lumjingshai, Shillong.

  
 सुमित अग्रवाल / Sumit Agarwala  
 उप प्रबंधक (वि व ले) / Dy. Manager (F&P)  
 पावरग्रिड, शिलांग / POWERGRID, Shillong.

  
 वरिष्ठ प्रबंधक (सं.)  
 Sr. Manager (E)  
 कार्यवाहक निदेशक (सामाजिक) का कार्यालय  
 Q/o the Executive Director (Comm)  
 नॉर्थ ईस्ट रीजनल पावर कमिटी लि., शिलांग  
 NEEPCO Ltd., Shillong

North Eastern Regional Power Committee

Assets schedule as on 31.03.2017

Particulars	Head of Accounts	Gross Block (Rs)	Rate of Depreciation	Depreciation (Rs.)			Net Block (Rs.)
				Opening	During the year	Closing	
Mobile Hand Set - 01 no.	Communication Equipment	28500	6.33%	9772	1804	11576	16924
Sony Vio Laptop - 02 nos.	EDP Equipment	115900	15.00%	94169	17385	111554	4346
H.P. Laptop - 01 no.	EDP Equipment	62400	15.00%	46800	9360	56160	6240
H.P. Desktop - 01 no.	EDP Equipment	74200	15.00%	17622	11130	28752	45448
UPS (APC 1 KVA) - 01 no.	EDP Equipment	6500	15.00%	1544	975	2519	3981
Fax Machine- 01 no.	Office Equipment	8120	6.33%	2784	514	3298	4822
Scorpio-VLX (Vehicle)	Transport Equipment	1233114	9.50%	536919	117146	654065	579049
Maruti Swift Dzire Zxi (Vehicle)	Transport Equipment	787628	9.50%	6235	74825	81060	706568
<b>Total</b>		<b>2316362</b>		<b>715845</b>	<b>233139</b>	<b>948984</b>	<b>1367378</b>

Board fund receivable

Member	Amount (Rs.)	Remark
PTC	200000.00	Head of Accounts
Arunachal Pradesh	100000.00	"Board Fund contribution receivable"
Manipur	100000.00	
<b>Total</b>	<b>400000.00</b>	

Salary payable

Particular	Amount (Rs.)	Remark
Shangpliang Agency	69764.00	Provisional for March 2017
<b>Total</b>	<b>69764.00</b>	

  
 Sumit Agarwala / Sumit Agarwala  
 Dy. Manager (F&A)  
 Lumingshah, Shillong.  
 Meghalaya Power Transmission Corporation Ltd.

  
 S. Monogor (E)  
 Dy. Manager (E)  
 Lumingshah, Shillong.  
 Meghalaya Power Transmission Corporation Ltd.

NORTH EASTERN REGIONAL POWER COMMITTEE

Receipt and Payment Account  
for the period ending 31.03.2018


Receipt		Payment	
Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Opening Balance			
Cash	0.00	Salary & Wages	866632.00
Bank	6154105.82	Bonus	10500.00
Yearly contri. from Members	2600000.00	Uniform	0.00
Contribution for App	1353982.30	Meeting exp	1258912.00
Contribution for CDAC	3500000.00	Telephone expenses	0.00
Bank Interest	348862.00	Printing & Stationery	67967.00
Board Fund Contribution receivable	400000.00	Conveyance	24000.00
		Entertainment exp	86271.00
		Misc Office exp	113782.00
		Vehicle expenses including insurance	62238.00
		Travelling exp	262362.00
		Office furnishing fund	0.00
		CDAC	1576000.00
		Driver expenses	30270.00
		Closing Balance	
		Cash	0.00
		Bank	9998016.12
Total	14356950.12		14356950.12


NORTH EASTERN REGIONAL POWER COMMITTEE

Inome & Expenditure Account  
for the period ending 31.03.2018

Dr.			Cr.
Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Salary & Wages	870002.00	Yearly contri. from Members	3500000.00
Bonus	10500.00	Bank Interest	348862.00
Uniform	0.00	Contribution for App	1353982.30
Meeting exp	1258912.00	Contribution for CDAC	3500000.00
Telephone expenses	0.00		
Printing & Stationery	67967.00		
Conveyance	24000.00		
Entertainment exp	86271.00		
Misc Office exp	113782.00		
Vehicle expenses including insurance	62238.00		
Travelling exp	262362.00		
Driver expenses	30270.00		
CDAC	1576000.00		
Depreciation	216980.00		
Balance being the excess of income over expenditure	4123560.30		
Total	8702844.30	Total	8702844.30

  
उप प्रबंधक (वि व ले) /  
Shillong Power Transmission Corporation Ltd.  
Lumjingshai, Shillong.

  
सुमित अग्रवाल / Sumit Agarwal  
उप प्रबंधक (वि व ले) / Dy. Manager (F&A)  
पावरग्रिड, शिलांग / POWERGRID, Shillong.


  
सि. प्रबंधक (वे.) /  
Sr. Manager (E)  
कार्यपालक निदेशक (व्यवसायिक) का कार्यालय  
Of the Executive Director (Comm)  
नीपको लि., शिलांग  
NEEPCO Ltd., Shillong

**NORTH EASERN REGIONAL POWER COMMITTEE**

**Balancesheet as on 31.03.2018**

Liability			Assets		
31.03.17	Particulars	Amount (Rs.)	31.03.17	Particulars	Amount (Rs.)
7851719.82	Acc. Board fund Op: 7851719.82  Add: Excess of income over expenditure. 4123560.30	11975280.12		Fixed assets:	
			16924.00	Communication equipment 28500.00 Less Deprn. : 13380.00	15120.00
			60015.00	EDP Equipment : 259000.00 Less Deprn: Rs.221676.00	37324.00
69764.00	Salary payable	73134.00	4822.00	Office Equipment : Rs. 8120.00 Less Deprn: Rs. 3812.00	4308.00
0.00	Office furnishing fund	0.00	1285617.00	Transport Equipment : Rs. 2020742.00 Less Deprn: Rs.927096.00	1093646.00
			400000.00	Board Fund Contribution receivable	900000.00
			0.00	Fixed deposit	0.00
				Closing bal:	
			0.00	Cash	0.00
			6154105.82	Bank	9998016.12
<b>7921483.82</b>	<b>Total</b>	<b>12048414.12</b>	<b>7921483.82</b>	<b>Total</b>	<b>12048414.12</b>

  
**Chief Engineer (I)**  
 Jhalaya Power Transmission Corporation  
 Lumjingshai, Shillong.

  
**सुमित अग्रवाल / Sumit Agarwala**  
 उप प्रबंधक (वित्त) / Sr. Manager (F&A)  
 पावरग्रिड, शिलांग

  
**वरि. प्रबंधक (व.)**  
**Sr. Manager (E)**  
 कार्यपालक निदेशक (वाणिज्यिक) का कार्यालय  
 Ojo the Executive Director (Comm)  
 नीपको लि., शिलांग  
 NEEPCO Ltd., Shillong

