

## North Eastern Regional Power Committee

### **MINUTES OF THE 5<sup>th</sup> NER Telecommunication, SCADA & Telemetry**

#### **(NE-TeST) COORDINATION**

#### **SUB-COMMITTEE MEETING OF NERPC**

**Date** : 16/11/2016 (Wednesday)

**Time** : 10:00 hrs

**Venue** : "Hotel Nandan", Guwahati.

The List of Participants in the 5<sup>th</sup> NE-TeST Meeting is attached at **Annexure - I**

Shri P.K. Mishra, Member Secretary, NERPC welcomed all the participants to the 5<sup>th</sup> North Eastern Telecommunication, SCADA & Telemetry meeting. He expressed with great satisfaction that a good number of participants from constituents have attended the meeting and expected that the same trend should be continued in future for fruitful deliberation and resolving the important issues. He emphasized that communication will play a vital role in power sector in future and hence improvement of communication is a must. Further, he stated that there were so many communication schemes were already in the pipeline and therefore, he requested NERTS to give a brief presentation on all present and future projects in North Eastern Region for the benefit of the region.

He then requested Shri B. Lyngkhai, Director/SE(C&O) to take up the agenda items for discussion.

#### **A. CONFIRMATION OF MINUTES**

#### **CONFIRMATION OF MINUTES OF THE 4<sup>th</sup> MEETING OF "NORTH EASTERN TELECOMMUNICATION, SCADA & TELEMETRY (NETeST)" SUB COMMITTEE OF NERPC.**

SE(O) informed that minutes of the 4<sup>th</sup> NETeST Meeting held on 9th August, 2016 at Cherrapunjee were circulated by NERPC vide letter No. NERPC/SE(O)/TeST/2016/ dated 23<sup>rd</sup> August, 2016.

During confirmation, representative from Assam expressed their view that Assam would like to include some of the station in the backup VLAN (4Mbps) and it may added to the minutes of 4th NETeST. It was deliberated in forum that central sector

nodes were reported separately to NERLDC whereas State sector nodes were reported to SLDC and hence the same cannot be mixed up. However on request of AEGCL, special requirement of AEGCL may be considered and an Ethernet link of 2-4MBPs may be considered from POWERGRID Badarpur to Kahilipara to be arranged by POWERGRID and to be booked to central sector provisionally initially for 2years. POWERGRID will take necessary action to arrange the same at the earliest by 10days. It was concluded that there need not be any further change in 4<sup>th</sup> NETeST MOM. The forum agreed.

***The Sub-committee confirmed the minutes of the 4<sup>th</sup> NETeST Meeting as no further comments/observations were received from the constituents.***

#### **A.1 Status of SLDCs in NER:**

The status of setting-up of SLDC as informed by POWERGRID during 5<sup>th</sup> TeST meeting is given below:

SN	Utility	Status as informed in 5 <sup>th</sup> NETeST/17th TCC	Status as informed in 4 <sup>th</sup> NETeST/17th TCC	Target Completion
UPGRADATION OF SLDCs				
1	Assam	EMS Tuning left. Supply of DG set by January. Completion by March 17.	Completed: Main SCADA/EMS system in April 2016 Balance: EMS data tuning (as per PRM) & DG Set & RTUs-new requirement.	31.12.2016 (except DG set-Target Feb16)
2	Tripura	Out of 24 RTU 15 are commissioned and installed. Some site requires 48V DC supply and some require civil work.	Completed: Main SCADA/EMS system in April 2016. Balance: EMS data tuning (as per PRM). New Spare/RTU	31.12.2016 (except DG set-Target Feb16)
3	Meghalaya	EMS SAT already started. DG set to be installed later.	Completed: Main SCADA & EMS system in April 2016 Balance: EMS data tuning (as per PRM) & DG set ,New Spares	31.12.2016 (except DG set-Target Feb16)
4	NERLDC		WIP: SCADA, EMS (90% completed)	31.12.2016

NEW SLDCs				
5	Manipur	EMS tuning to be completed by December 16. DG set to be installed later.	Completed: Main SCADA/EMS system in September 2016. Balance: DG Set, New Spare	31.12.2016(except DG set-Target Feb16)
6	Nagaland	Another 6-8 week required for completion of site work (including AC, LT panel and Earthing). By December 2016.	WIP: Building Construction to be completed by November 2016. Building to be handed over by 1 <sup>st</sup> week of Nov'16.	28.02.2017
7	Mizoram	Installation in progress. To be completed by January 17.	Work In Progress	15.01.2016 (except DG set-Target Feb16)
8	Ar. Pradesh	Space earmarked for SLDC still not vacated. NERPC to communicate with Power Minister and Power Secretary so that the project is not delayed	WIP: EMS & SCADA. Building partially handed over. Entire space earmarked for SLDC is to be handed over.	28.02.2017 (except DG set-Target March16)
9	Backup NERLDC		80% completed. Balance: DG Set & others.	31.12.2016

During 3rd & 4th NETeST, it was requested by forum to AP SLDC team for handing over of complete space for fast execution of SLDC set up project. Similarly Dimapur SLDC end was requested for early completion of building which is under construction.

AMC signing of remaining utilities is to be expedited. Further it is to inform that SLDC implementation-operation start/DOCO date is considered with due information in NETeST/OCC (whichever earlier) with mutual discussion with respective beneficiary/state utility and so separate certification from NERLDC is not required.

**GPRS connectivity (under SLDC up gradation project cost) for RTU-SLDC SCADA:**

Further as suggested by Different utilities, POWERGRID may explore connectivity of different RTU locations of different states through GPRS connectivity. Tentative Cost Estimate as intimated by POWERGRID is Rs 1.0 Crore (Approx). POWERGRID intimated that there is poor response from parties in this regard for NER. However, tender has been floated & Bid Opening (OBD) is under extension. It is anticipated that executable cost at present may vary.

During 17th TCC POWERGRID informed that consent from all constituents for GPRS connectivity has already been obtained and accordingly, POWERGRID will go ahead for implementation of scheme and recover the investment. Further, POWERGRID clarified that the running cost of the scheme to be borne by individual constituents.

**Deliberation in the meeting**

GE/Alstom informed that all SLDCs must get the DG set Foundation Pad & earthing ready before time by the civil department as per design already forwarded to each utility. When DG set is delivered by end of January, 2017, it will be directly unloaded into the DG set Pad. He also requested AEGCL to give concurrence about sizing of additional requirement of RTU so that amendment can be done by NERTS in time. Other states were also asked to provide concurrence of spare RTU sizes which is proposed to be equal to that highest/biggest sized RTU of that state under this. He also requested all SLDC to make available 2 Mbps internet lease line with Public static IP for Firewall and patch update/web server management. SE(O) NERPC requested Alstom to write a letter in this regard to all SLDCs. Concern of delay of project due to non-readiness of trench/RTU from TSECL, non-readiness of site in time for Dimapur, Mizoram, AP utilities were also discussed.

Concerns were raised by AEGCL about plan of EMS tuning to be done by Alstom without actual data since many RTU are not reporting. Alstom representative clarified that the same has already been consented in last PRM-06 and that GE cannot postpone the EMS SAT indefinitely (beyond March17) and requested SLDC Assam to opt for actual data, if 70%-80% RTU are reporting or may opt for simulated data. AEGCL requested Alstom to show EMS test with actual data when available even during warranty/AMC period after completion/TOC of project without any extra cost and as such demonstration through simulated data need not be done. Further, MSPCL representatives informed that since main SCADA EMS has been commissioned on 08.11.2016 the same has to be made operational for Manipur SLDC. It has been declared that DOCO of Manipur SLDC may be considered to be started from 09.11.16. Further regarding GPRS, all utilities again requested POWERGRID to expedite GPRS scheme implementation as per approval of 17th TCC/RPC and revised cost after award approval, may be intimated to forum.

***The Sub-committee noted as above.***

***Action: NERTS, State Utility, Alstom, NERLDC***

**A.2 Non-reporting of RTUs of Constituents on Existing SCADA:**

**a) POWERGRID:** 2 out of 18 i). Mokokchung PG. ii). KOPEX NO—

**b) NEEPCO:** 4 out of 6 i) Doyang ii). Kathalguri  
iii). Ranganadi (unstable) iv) Kopili

**c) AEGCL:** 35 out of 55

i) Agia ii). APM(Jogighopa) iii). Barnagar iv). Boko v). Bokajan  
vi). Bokakhat vii). Behiating viii). B. Chariali ix). Bornagar x). Depota  
xi). Sipaj xii). Dhemaaji xiii). Doomdooa xiv). Dullavchera  
xv). Gauripur xvi). Gohpur xvii). Namrup xviii). Gossaigaon xix). Dispur  
xx). Jagiroad xxi). xxi) Kahilipara xxii). North Lakhimpur xxiii). Majuli  
xxiv). Margherita xv). Morani xxvi). Nagaon xxvii). Nazira xviii). Pailapool  
xxix). Rangia xxx). Panchgram old xxxi). Rowta xxxii). Rupai  
xxxiii). Sibsagarh xxxiv). Sipajhar xxxv). Sonari xxxvi). Silchar  
xxxvii). Samtezgoh.

**d) MePTCL:** 10 out of 21

i). Cherapunji ii). EPIP-I iii). EPIP-2 iv). Khliehriat v). Killing/Byrnihat  
vi). Lumshnong vii). Nongstoin viii). Nangalbibra ix). Mawph x). Mawph

**e) TSECL:** 18 out of 26

i). Amarpur ii). Badarghat iii). Baramura iv). Belonia v). Bokafa  
vi). Boxanagar vii). Monar viii). Dhalabil ix). Dharmanagar  
x). Gamaitila xi). Gokulnagar xii). Gumti xiii). Udaipur  
xiv). Kamalpur xv). Ompi xvi). Rabindranagar xvii). Sabroom  
xviii). Satchand

**f). RTUs status under New SCADA project for AP, Manipur, Mizoram & Nagaland**  
are also not reporting

**Deliberation in the meeting**

- a) For POWERGRID: The above RTUs already restored. Mokokchung & Nirjuli data when tested with ASE is OK. But when connected to CFE/Server, the same is intermittent. NERLDC is requested to take up the same with Alstom. Regarding Haflong data, AEGCL may take up calling of service engineer(PLCC-ABB/Alstom as required) as the Haflong data reporting to NERLDC through Haflong Khandong line has been made LILO at Umrangshu and necessary integration, panel shifting after LILO has to be taken care by AEGCL. AGM-PCC, AEGCL confirmed to look in to the matter soon. POWERGRID also told necessary site-level as required will be extended to AEGCL from POWERGRID Haflong SS. GE/Alstom project manager intimated that
- b) For NEEPCO stations: NEEPCO intimated that Kathalguri RTU would be commissioned soon. NEEPCO also requested POWERGRID to check the PLCC link up to wide band location. POWERGRID replied affirmatively and ensured to call for ABB service engineer after LOA/PO placement. Regarding Ranganadi RTU, the same is to be jointly inspected by NEEPCO & POWERGRID. For other RTUs, NEEPCO confirmed to solve the problems of RTUs along with links in line with grid codes at the earliest.

- c) MEPTCL also confirmed that they will look into the matter of RTUs at the soon. Some of RTUs have already been restored.
- d) AEGCL intimated that most of the RTUs data are under restoration and within 3 months most of the data along with OPGW links etc., will be restored. However action has been taken to restore some PLCC links in which more nos. of RTUs will be reporting.
- e) TSECL representative was not present and so the status query would be communicated by NERLDC to TSECL for needful reply.

***The Sub-Committee noted as above.***

**A.3 Rates of new CARDS, service support, assurance of lifespan by M/s ALSTOM:**

During 4th NETeST meeting, Alstom representative informed that except Arunachal Pradesh, Manipur and Mizoram, remaining States have signed AMC with Alstom. Forum requested remaining states to sign the AMC with Alstom. Alstom representative also informed that AMC will be extended to new card purchased outside AMC, but the cost will increase for the AMC for corresponding increase in no. of cards. (Similarly if no. of cards reduces AMC cost decreases correspondingly.)

**Deliberation in the meeting**

AEGCL already placed order for new cards

***The Sub-Committee noted as above. The item may be dropped as AEGCL confirmed to take up***

**A.4. Status of SDH installation by POWERGRID:**

As per deliberation of 21st UCC meeting due to some unavoidable contractual issue/constraints beyond POWERGRID's control, though awarded but implementation has been delayed. Now the matter has been sorted out with M/s KEC, supply has been confirmed for SDH units for ULDC nodes and target completion date is May 2015.

During 4th NETeST meeting, Manager (AM), NERTS informed that SDH units have been delivered, the LOA will be issued by 30.09.16 (proposed to be OEM/ECI) along with 3years AMC and Commissioning to be completed by another 3months wrt LOA. Forum requested POWERGRID to take up installation PO immediately with OEM/ installation vendor without further delay as the work is very urgent in nature. All ULDC node sites are requested to co-operate (Extension of 48 V from existing substation system etc.) during installation. The cost would be booked to MW Vacation project as per relevant RPC approval.

**Deliberation in the meeting**

LOA already placed to ECI for installation in ULDC nodes by M/s ECI. The materials were supplied by KEC under MW vacation project. All utilities have been asked to ensure healthiness of air conditioning and DC/Aux supply as required. Further, during survey of ECI, it was requested that all necessary help may be extended by utilities States & Central Sectors. It has been deliberated that necessary shut down as required during replacement of SDHG equipment (Siemens make by ECI make ) will be provided by NERPC/NERLDC from time to time basis. Further it was discussed that new SDH may be kept parallel for some days before fully dismantling of old. However same will be done subject to space constraint.

***The Sub-Committee noted as above.***

***Action: NERTS.***

**A.5 Status of phase –I of URTDSM project:**

During deliberation of 21st UCC meeting POWERGRID proposed connectivity from POWERTEL as Stop Gap Arrangement for 2.5 Years to have connectivity of:

PMU-to--PDC,

PDC-to-PDC and

PDC-to-Super PDC as per scheme of project (detailed in NETeST)

The financial implication for the POWERTEL connectivity will be approximately 2Crores per year which is to be booked against URTDSM Project Cost as an interim stop gap arrangement for 2.5 years till new SDH/PDH of ULDC FO Expansion (Package-4A,4C) projects are installed and new channels are established.

During 17th TCC meeting, Tripura intimated that approach may be taken to minimize & optimize cost. Assam requested to book the cost in to the ULDC running/O&M cost. POWERGRID intimated that they will revert back soon in the next meeting.

As per discussion in 4th NETeST meeting the proposed changes (including additional ones) regarding placement of PMUs in NER may be booked to original project cost with funding from PSDF. NERPC was requested to explore the proposal upon discussion with NLDC/CEA.

**Deliberation in the meeting**

SE(C&O) NERPC requested NERLDC to give one presentation regarding the benefit and advantage of having PMUs i.e. Operational aspects based on application of URTDSM project. In the meantime the agenda is kept in abeyance and will be reviewed after six months.

POWERGRID intimated that as PSDF approval is yet to be obtained, the additional PMU quantity may not be possible. Further on query of NEEPCO to connect Ranganadi over OPGW and regarding putting of PMU at Ranganadi, forum opined that the issue should be adhered in line with MOM of 3rd NETeST, i.e. inclusion of Ranganadi instead of Gohpur, Salakati instead of Birpara was considered to be approved by forum and POWERGRID was instructed to go ahead within the same contract as there is no change in total qty/location of substation/station. It was discussed in Forum that whatever data can be brought by installation of ECI equipment (on going replacement of ULDC SDH equipment), same can be arranged for PMU-PDC/super PDC reporting. It was again deliberated that telecommunication cost if further to be incurred for PMU-PDC/PDC-Super PDC, Super PDC-Super PDC, the same may looked into for booking in to O&M ULDC cost by POWERGRID.

***The Sub-Committee noted as above.***

***Action: NERLDC, POWERGRID***

#### **A.6 Replacement of Multiplexers:**

As per deliberation of 21st UCC meeting POWERGRID informed the forum that ABB has replied for repair of cards. As discussed with AEGCL, MePTCL has been again requested to take up checking of healthiness of FOX515-Mux & then repairing of existing Mux through ABB alike NERTS. Contact details will be provided to MePTCL.

During 4th NETeST meeting, AEGCL intimated that old multiplexers are not OK. However, AEGCL requested that POWERGRID may include all mux of ULDC locations in the PDH Mux procurement process as discussed to be included in NE-FO project. POWERGRID agreed to go ahead in line with request of AEGCL and intimated that LOA for NE FO Expansion has been awarded to M/s Tejas (M/s Valiant-for PDH) & M/s Fibcom (SDH).

#### **Deliberation in the meeting**

Manager NERTS informed that he had already mailed the details of nodes to all states and requested all the states to reply/give comments at the earliest. He requested all State utilities to give feedback after the meeting.

With request of Assam, PDH multiplexers are to be included for Assam in Pkg-4C are namely—a) Gohpur, b)Kahilipara, c)Mariani Grid S/S, d)Lakwa Thermal Power Station & e)Namrup Thermal Power. The above were requested during MW Vacation project



itself but due contractual obligation and as non-inclusion of scope in original project, the same was not included in MW vacation.

Further in line with 15th TCC/RPC (Replacement of PDH nodes of ULDC Phase1 locations in NER" was approved in 15th NERPC-Aug'2015. MOM -Item.A.18 /page33), replacement of PDH mux FOX615 may be taken care in the package-4C awarded to M/s Tejas. Further for inclusion of PDHs/SDHs as required for SLDCs, Manager, NERTS stated to refer the RPC MOM.

***The Sub-Committee noted as above & recommended as required.***

***Action: NERTS, All State utilities.***

#### **A.7. Finalization of Consolidated OPGW Network & Installation Project:**

During 4th NETeST meeting, Manager (AM), NERTS informed that as per earlier decisions, it was again requested to all constituent again that all may submit the state-wise total network to NERPC and a meeting through study group & representatives from states may be called for consolidated discussion on channel planning etc. For ring format formation/redundancy as per network shown necessary fibers along with protection pair will be provided as & where required

OPGW network (962 Kms) implemented under ULDC project by POWERGRID has completed more than 13 years after commissioning. This will achieve its useful life of 15 years in 2018. There is a need to take up replacement of the same so that the replacement is in place by the time 15 years period is complete and data communication is not hampered. Also, around 1158 Kms OPGW is also required to be established on various lines of Central Sector to provide redundancy in the system. It is proposed to constitute a Committee comprising members from various constituents to study the requirement in detail and come out with their recommendations for implementation of the OPGW requirement.

LIST OF OLD CS LINKS: SC&C--ULDC Project Central sector OPGW (running with 12F only ) which are to complete 15years in 2018			
	FROM	TO	KM RL
1	Kahelipara	Umiam III (ASEB/MESEB)	59.132
2	Umiam III	Umiam I(MESEB)	17.455
3	Umiam I	NEHU(MESEB)	10.257
4	NEHU	Shillong***UNDER GROUND FO	6.23
5	NEHU (MESEB)	Khliehriat (MESEB)-ckt-1	64.094
6	Khliehriat (MESEB)	Khliehriat (PGCIL)**	7.791

7	Khliehriat	Khandong(PGCIL)	40.99
8	Khandong(PGCIL)	Koplili (PGCIL)	11.191
9	Misa(PGCIL)	Koplili (PGCIL)	73.186
10	Misa(PGCIL)	Balipara(PGCIL)	94.046
11	Misa(PGCIL)	Dimapur(PGCIL)	119.192
12	Badarpur(PGCIL)	Khelihiriat(PGCIL)	73.183
13	Badarpur(PGCIL)	Kumarghat(PGCIL)****	117.519
14	Agartala Gas(PGCIL)	Kumarghat(PGCIL)****	99.817
15	Agartala (PGCIL)	Agartala Gas(PGCIL)****	7.416
16	Dimapur (PGCIL)	Kohima(PGCIL)	59.8
17	Kohima(PGCIL)	Imphal(PGCIL)	105.64
<b>Sub Total SC&amp;C</b>			<b>966.94</b>

During the 17th TCC meeting, the matter of replacement of ULDC OPGW link and NER- FO expansion was referred to NETeST for discussion. A committee may be constituted for finalization of schemes regarding replacement of ULDC OPGW replacement, NER-FO expansion. Forum may also co-opt members for installation of terminal equipments etc.

### **Deliberation in the meeting**

For finalizing the recommendation of CS links which are required to be added a committee is formed. With consent from utilities, the nominees for the committee are as follows:

	Utilities	Nominated members-Central Coordinator
1.	Assam	Mr Ajay Das, AGM-OPGW For Equipment Mr H Kakati, AGM/ Alternate: Mr Arup Kalita, AGM
2.	Arunachal Pradesh	Sh. N. Perme, EE
3.	Manipur	Sh Santi Kumar Singh/Ritu Laishram, Mgr.
4.	Meghalaya	D. J. Lyngdoh, E.E Shri B.Nikhla, EE B. Narry, AEE
5.	Mizoram	Sh. Vanlalrema, SE/Alternative: Mr Zoramdina, AE
6.	Nagaland	Sh. A. Jakhalu, EE/Sh. Tiameraen Ao, EE
7.	Tripura	Smt. Sampa Sen

8.	NERPC	Sh Srijit Mukherjee/Sh Sadiq Imam
9.	NERTS	Sh. M.K. Baruah, DGM-AM Sh Supriya Paul, Manager, AM
10.	NEEPCO	Bhaskar Goswami/Joypal Roy, Sr. Mgr.

All the above members will take up with competent authority for respective utility for their internal approval internal (with departmental). Further all members are requested to collect all data relevant to different projects from their respective department/division/head quarter as undergone/consented by state authority/central authority. This will be required for overall visualization of optical network in NER for present & future.

Further, as enquired by Meghalaya, it was clarified in forum that there were two items approved in TCC.

- a. No. A.11, Additional Communication Scheme (538+217=755km )--approval was already accorded
- b. No. A.12 –Reliable Communication Scheme—(966+1158=2124-Central sector) - --Approval accorded for committee formation to finalize the list of CS links

EE, SLDC, AP requested that connectivity as possible for AP may be done i.e. wide band location of CS may be extended further so that Arunachal Substations nearer may be connected over PLCC or so up to that point. It may be noted that the link of Tezu-Namsai (96km) has to be considered in this respect for completion of link up to Namsai and may be included.

It was further intimated by POWERGRID that links-202km as requested by Manipur MSPCL(TCC A.34) could not be considered in the existing project due to contractual limitation under on-going project & delay that occur (due to late inclusion of links) for final petition filing to CERC. Hence, it is proposed that the requirement of Manipur/MSPCL may be taken care in the discussion as to be held by committee under A.12.

***The Sub-Committee noted as above.***

<b>B. NEW ITEMS</b>
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**B.1 On Job Training for SCADA for identified employees of new SLDC:**

It is proposed that NERLDC & SLDC-Assam, Tripura, and Meghalaya may facilitate on the job training for to be deployed employees of new SLDCs of Manipur, Mizoram, AP, and Nagaland.

During 4th NETeST meeting, the Sub-Committee requested Ar. Pradesh, Manipur, Mizoram & Nagaland to start sending their officers in batches so that on job training can be carried at the earliest either at SLDC, Assam/ Meghalaya.

**Deliberation in the meeting**

EE, DoP Nagaland informed that they will be sending their members for training after installation of new system. All other SLDCs were requested to send their representative to SLDC Assam & NERLDC for training as per their requirement & with mutual discussion.

***Action: All SLDCs/NERLDC.***

**B.2 Strengthening of PLCC System by NER States:**

PLCC system works as a back-up path for telemetry of RTUs. It is proposed that each constituent may kindly revive/ install PLCC as per relevant norms for 132Kv & above T/Ls for data path connecting to respective SLDC.

Each state may discuss about their present status of connectivity & future plan PLCC connectivity.

During 4th NETeST meeting, SE(O), NERPC informed that only Meghalaya has submitted the present PLCC network and requested Assam to send the same at the earliest.

AEGCL has submitted the FO network, attached at Annexure B.2. AEGCL may kindly confirm whether the proposed FO network to be commissioned by POWERGRID is only the PLCC network under AEGCL.

The forum may kindly constitute a committee to finalize the PLCC expansion/strengthening.

### **Deliberation in the meeting**

Assam representative informed that they are trying to revive the PLCC network and some of the stations (Namrup, Lakhwa) have started reporting on the revived PLCC network.

Manager (AM), NERTS informed that NERTS has extended the annual rate contract for PLCC network to ABB & soon LOA will be placed. However, for future, it was also emphasized that respective utility as per relevant IEGC may connect up to the wide band location through PLCC or as possible.

EE, DoP Nagaland informed that they have issued LOA for revival of PLCC network in four stations. They are facing issues with contractor and it may take 3-4 months. POWERGRID has provided detailed requirement of PLCC-link revival to representative of Nagaland so that the requisite RTUs as covered under SLDC project may report to SLDC Nagaland, Nagarjun. Nagaland assured to take up the same (LOA placement for modem, data card & service engineer soon) with higher authority.

EE, MePTCL informed that they are using PLCC for voice communication. Arunachal Pradesh was requested the same.

***After detailed deliberation, the Sub-Committee recommended that PLCC should be used as back up communication path wherever possible as the same is robust and does not depend on any remote NMS etc. Point to Point voice communication of PLCC is of much importance keeping in view if under emergency (e.g. in case of outage of central NMS or server of OPGW network).***

### **B.3 New SCADA – Upgradation Project/PMU Related Issues:**

**Point-1:** In order to have a complete SCADA network & to complete the Installation, a minimum of 02 (Two) communication links from each SLDC to NERLDC is required as also noted in Item 1-A (vii). As of date, only 01 link each to Assam & Tripura has been provided & it is understood that there is some last minute hurdle in terminating the NEHU link. POWERGRID may provide 02 (Two) links each from existing SLDC to RLDC. The links to new SLDCs (Mizoram, Manipur, Nagaland and Arunachal) are to be provided subsequently. This is apart from the dedicated VC network.

**Point- 2:** As RLDC & SLDC are dependent on each other for SCADA Data, delay in execution one affects the other. POWERGRID may update the current status of Assam, Meghalaya & Tripura portion of the project & also provide the schedule of

completion. Unless SLDC systems are integrated with NERLDC, the Parallel Operation (90 days) & System Availability Test (SAVT) cannot be initiated.

**Point- 3:** As envisaged, the Backup RLDC should receive data even in case of complete failure of Main RLDC & hence suitable splitting to be used for redundancy & the location of splitters to be decided during detailed engineering. As regards the location of Terminal Servers, ideally they should be placed at strategic locations other than Main RLDC/ Backup RLDC so that data is not interrupted at Backup Control Centre in case of total outage of Main Control Centre & vice versa. POWERGRID may provide the detail plan for implementation of the scheme.

As per deliberation of 4<sup>th</sup> NETeST meeting,

**Point 1:** Target date of providing 2<sup>nd</sup> link for SCADA/ EMS up-grade project: August, 2016

**Point 2:** By August, 2016.

**Point 3:** Detailed Plan to be provided by POWERGRID at the earliest:

POWERGRID informed that at present no specific remote location is available for terminal server placement keeping in view constraints of existing old mux & drops thereof. Once these old multiplexers are replaced under Package-4C & 4a, the same would be provided. Till then, the system may run alike its running since last 10-12 years since inception

**Deliberation in the meeting**

**Point 1:** Target date of providing 2<sup>nd</sup> link for SCADA/ EMS up-grade project: **23<sup>rd</sup> November, 2016**

**Point 2:** Completed. Point may be closed.

**Point 3:** Asst. GM, NERLDC has some query regarding Dual LAN configuration which was confirmed by Alstom & NERTS that present network 2nos. Star network ( In 1<sup>st</sup> network(point to multi point)-NERLDC is star point & all SLDC plus B/U are end points of the star, In 2<sup>nd</sup> Star (Point to multi point)-B/.U is start point & others are end points; these two network are considered as VLAN/ Point to Multi point in line with approval of 17<sup>th</sup> TCC, 3<sup>rd</sup> Network is for VC with star at NERLDC).

All technical requirements will be full-filled once all points are in place. Alstom/GE also confirmed the same. This point may be dropped

***The Sub-Committee noted as above.***

**Action: NERTS.**

#### **B.4 Status of VOIP Exchange Project Status & Implementation:**

During 4th NETeST meeting, Manager (AM), NERTS informed that VOIP exchange project is mostly completed where SLDCs are in place i.e. mainly exchange installation at SLDCs and NERLDC which have been completed except Nagaland, Mizoram, AP due to constraints by state (Space, power supply –AP, Mizoram, Nagaland). Further from SLDC to Substation connectivity to be provided by respective state utility if the link is non-CTU jurisdiction. Integration (demo only by the party) of RSU (4w to 2 w-converter) has already been demonstrated in Assam—(Kahilipara to Sarusajai) successfully in front of Assam representative. It is requested that Tripura representative may kindly do SAT once approached by Orange by 1st week of Sept16. The RSUs will be handed over to SLDC representatives in SLDC locations only.

#### **Deliberation in the meeti**

The VOIP exchange implementations at SLDCs are completed except Arunachal Pradesh, Mizoram & Nagaland. DoP, AP; P&E-Mizoram, DoP, Nagaland have been requested to arrange 48V supply at their SLDC end. Mizoram intimated the same has already been taken up. Procedures for IP phone configuration has been sent to all over email by POWERGRID. All phones/RSU have been handed over to State representatives and demo given how to do by Orange representatives. SAT at Tripura will commence soon. The item is proposed to be dropped as there is no critical issue. However any state/NERLDC/ POWERGRID if there is any pending issue may take up as new agenda in next NETeST

***The Sub-Committee noted as above.***

***Action: NERTS & State utility,***

#### **B.5 MW Vacation Project:**

During 4th NETeST meeting, POWERGRID & KEC intimated that the scope for AEGCL would be completed soon. DGM KEC, Guwahati intimated as follows:

- a) BTPS-Agia-Mirza-Boko-Sarusajai---link commissioning by August'16.
- b) Recommissioning of Badarpur-Badarpur-Srikona-Pailapul- to be completed by August 2016 along with re-integration of Gohpur data.

It was requested AEGCL would also co-operate and sign SAT once KEC raises SAT for OPGW & Equipment. All other works like re-laying of approach cable(12-24f) as asked by AEGCL and shifting of FODP , replacement of FMS wherever applicable will be completed by Nov16.

During 4th NETeST meeting, the Forum agreed for additional time frame /time overrun if applicable because of additional nodes/SDH or Optical Links as taken up/being installed (added from time to time vide UCC/NETeST forum) under MW Vacation project which were not originally in scope, keeping in view different constraints as explained during meeting. POWERGRID has been requested to complete the installation & commissioning of STM-4 through M/s ECI/OEM under MW vacation project by Nov-Dec'16.

**Deliberation in the meeting**

Forum expressed that project should be completed without further delay. KEC expressed different issues like ROW, re-work and frequent bandhs as reasons of delay. The forum insisted that higher authority of KEC may attend the meeting onward. Assam informed that during that rectification work, link E1 Samaguri to Tinsukia was disturbed which KEC should immediately restore. KEC confirmed to do so. KEC further informed that relaying of 24F approach cable in upper Assam has been completed & further requested AEGCL to give receipts of Earth wire reconciliations as submitted. Site Manager-KEC provided the following time line for linking the following with KEC equipment:

- 1) Agia BTPS to Agia Sarusajai- SAT by December 2016 (5 nodes).
- 2) Balipara to Gohpur - By December 2016.
- 3) Samaguri-Mariani-Lakwa-Namrup-Tinsukia – Completion By January 2016.(Samaguri to Sarusajai/Kahilipara link on optical or E1as required to be arranged through AEGCL optical network—for NMS manage & data plus voice)
- 4) Badarpur-Panchgram to Jaribam- By Feb 2016.
- 5) The forum requested KEC to provide complete time line for all the nodes and mail the same. KEC confirmed that all works would be completed by 1<sup>st</sup> week of April2017. Gohpur to Kahilipara & Badarpur to Kahilipara link to be arranged under CS link for initial 2years by POWERGRID or till networks are connected.

DGM, AEGCL requested the forum for early completion of work so that more numbers of RTU can be reported. He also states that KEC must show end to end connectivity between station for each pair of fiber before completion & submit OTDR test report to AEGCL. He also informed that there was lapse on part of KEC in providing AMC contract. The forum requested to KEC to provide continuity in AMC contract. No interruption should be there.



KEC assured the same. Further it was again told by KEC that there is delay in OPGW over EHV connectivity to Namsai Central Sector POWERGRID/AP (as per original provision of contract) till date. It was noted that OPGW over 66kVTinsukia-Rupai-Namsai was to be discarded at present (as 66kV Rupai -Namsai is already abandoned & there is no EHV line further up to Namsai for OPGW). Forum agreed & suggested the said OPGW may be utilized as spare or/& for new CS links like Pare Generation/NEEPCO connectivity, Different State SLDC connectivity & as suitable. Forum agreed to look in to Namsai Central sector connectivity later in new project after committee discussion in line A.7 above. Further connectivity to SLDC-AP, Chimpu (via Nirjuli-Leikhi-Chimpu) is to be expedited by POWERGRID. Instead of Nirjuli (PG) to Leikhi, AP may provide clearance of laying OPGW over any other 33KV link to connect to Leikhi as existing Nirjuli-Leikhi line will be abandoned. KEC, POWERGRID & AEGCL had assured to do start SAT (joint verification & signing would be done in for links one by one) at the earliest possible.

***The Sub-Committee noted & recommended as above.***

***Action: NERTS & KEC***

#### **B.6 Data Concentrator RTU for MePTCL:**

During 4th NETeST meeting, Manager (AM), NERTS informed that for old RTUs, MePTCL has to carry out the job on cost basis but for new RTUs supplied under SLDC project, the matter would be done under AMC through Alstom. It was informed that Alstom has already confirmed to do the same in direct coordination with MEPTCL. Alstom again confirmed that data concentrator facility to be done in new RTU supply under project as the project team of Alstom is not authorized to work on old RTUs of Alstom without permission of Sales team.

#### **Deliberation in the meeting**

EE, MePTCL informed the forum that they have already taken up the issue with Alstom.

***The Sub-Committee noted as above. The item may be dropped.***

#### **B.7 Non-availability of SCADA data at SLDC:**

Tripura is facing difficulties in maintaining regular system operation (particularly during system failure, tripping and synchronization, monitoring of ICT etc) due to non-availability of Central Sector Data from the NER SCADA System. It is understood

that frequent failure of SCADA equipments and communication links is causing such non-reporting of CS Data at SLDC, Agartala. NERLDC/PGCIL may elaborate the issue.

**Deliberation in the meeting**

Tripura representative were absent. Agenda item to be dropped.

***The Sub-Committee noted as above.***

**B8. Additional MUX, STM for completion of connectivity:**

- 1) PDH multiplexers -additional 4nos. are also considered from AEGCL.
- 2) PDH mux considered for new SLDC locations, Old ULDC nodes-CS part & Kahilipara SLDC.
- 3) SDH-STM 16 considered for ring formation & SLDCs as per diagram. STM-4 considered for branches of FO network which are not required in loop.

Network is proposed keeping in view data congestion & redundancy considering PMU, SCADA, VOICE network/projects. List is attached

During 4th NETeST meeting, All constituents & forum agreed the technical requirement and booking under NE-FO expansion scheme. It was agreed that all utilities should inform the name of the coordinators within by15 days to NERPC & POWERGRID with a copy to NERPC. All state will provide their specific channel plan requirement by same date, otherwise, POWERGRID will go by the standard DRS which has already been communicate to all State. Necessary site survey report will be verified by respective State site I/C or coordinator for state locations and by POWERGRID for CS locations. Prior to that, any clarification required may be sought from POWERGRID over email

**Deliberation in the meeting**

Agenda to be jointly discussed in the committee formed.

***The Sub-Committee noted as above.***

***Action: All Constituents.***

**B9. Draft CERC Regulation (Communication System for inter-State transmission of electricity) Regulations, 2016.:**

The draft regulation is available at [http://www.cercind.gov.in/2016/draft\\_reg/Noti7.pdf](http://www.cercind.gov.in/2016/draft_reg/Noti7.pdf). The forum may like to discuss the various clauses.

**Deliberation in the meeting**

Constituents informed that they have already sent their reply and all utility requested.

***The Sub-Committee noted as above.***

**Date & Venue of next NETeST meeting**

It is proposed to hold the 6<sup>th</sup> NETeST meeting of NERPC on second week of January, 2017. However, the exact date and venue will be intimated in due course.

The meeting ended with thanks to the Chair.

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**Annexure-I****List of Participants in the 5<sup>th</sup> NETeST Meetings held on 16/11/2016**

SN	Name & Designation	Organization	Contact No.
1.	Sh. Nangkong Perme, EE, SLDC	Ar. Pradesh	09436288643
2.	Sh. B. Bordoloi, CGM, SLDC	Assam	09435045675
3.	Sh. Hitsh Kakoti, AGM, Comm.	Assam	09864110407
4.	Sh. J.K. Baishya, DGM, LDC	Assam	09435041494
5.	Sh. A.K. Das, AGM, H/Q, AEGCL	Assam	09435045804
6.	Sh. A.K. Kalita, AGM, Comm.	Assam	09435158118
7.	Sh. Arup Sarmah, Dy. Manager , Comm.	Assam	09707854367
8.	Ms Toushita Jigdung, Dy. Manager, SLDC	Assam	09707134351
9.	Sh. Th. Sushanta Singh, DM, SLDC	Manipur	09402104857
10.	Sh. G. Tapankumar Sharma, Mngr. MSPCL	Manipur	08974138850
11.	Sh. D. J. Lyngdoh, E.E (S.M), SLDC	Meghalaya	09774285758
12.	Sh. B. Wankhar, EE(MO)	Meghalaya	09436105914
13.	Sh. B. Narry, AEE, PLCC, MePTCL	Meghalaya	09089000911
14.	Sh. B. Nikhla, EE, SP, MePTCL	Meghalaya	09436314163
	<b>No Representative</b>	<b>Mizoram</b>	
15.	B. Tiameren Ao, EE(MIS)	Nagaland	09436260852
	<b>No Representative</b>	<b>Tripura</b>	
16.	Sh. B. S. Roy, Asst. GM	NERLDC	09436302719
17.	Sh. Sundar Moni Mohan, Dy. Mgr.(E/M)	NEEPCO	-
18.	Sh. Joypal Roy, Sr. Manager	NEEPCO	09435577726
19.	Sh. Prasenjit Phookan, DGM (E/M)	NEEPCO	-
20.	Sh. A. Patir, GM	PGCIL	-
21.	Sh. P. Kanungo, DGM(AM)	PGCIL	09436302823
22.	Sh. Supriya Paul, Manager, AM	PGCIL	09436302995
23.	Sh. M. K. Baruah, DGM(AM)	PGCIL	09401454830
24.	Sh. Thakor Prasad Pandey, DGM(O&M)	OTPC	08794718423
25.	Sh. Chitta Ranjan Das, CE(E)	NHPC	09599318483
26.	Sh. Kangkan Paul, AM(EEMG)	NTPC	09435029230
27.	Sh. Nitesh Pant	Alstom	-
28.	Sh. Imtiyaz Hussain, Project Manager	Alstom	08800795693
29.	Sh. Rajesh Koduri, Project Manager	KEC	08876524026
30.	Sh. P.K. Mishra, MS	NERPC	-
31.	Sh. B. Lyngkhai, Director/S.E (C&O)	NERPC	09436163419

32.	Sh. S. Mukherjee, AD-I/AEE	NERPC	08794277306
33.	Sh. Sadiq Imam, AD-I/AEE	NERPC	07004133772
34.	Sh. Shaishav Ranjan, AD-II/A.E	NERPC	08794276168