MINUTES OF THE 1st NER Telecommunication, SCADA & Telemetry (NE-TeST) COORDINATION SUB-COMMITTEE MEETING OF NERPC

North Eastern Regional Power Committee

Date : 06/11/2015 (Friday)

Time : 10:00 hrs

Venue : "Hotel Nandan", Guwahati.

The List of Participants in the 1st NE-TeST Meeting is attached at Annexure – I

Shri P.K. Mishra, Member Secretary, NERPC welcomed all the participants to the 1st North Eastern Telecommunication, SCADA & Telemetry meeting. He mentioned that earlier the meeting was being coordinated by NERLDC, but due to important of telecommunication, SCADA, Telemetry etc., the 21st UCC sub-committee had requested NERPC to be a part of Sub-committee of NERPC and during the 15th TCC & NERPC meetings, the same was accorded/approved accordingly. He expressed happiness that the forum is of full house and requested to continue the same in future for the benefit of the region. He requested all the members to actively participate in the meeting. He then requested Shri A. Patir, GM (AM), NERTS and Shri T.S. Singh, GM, NERLDC to share a few words before proceeding further.

GM (AM), NERTS mentioned that many projects are in the pipeline in the region and communication is one of the major issue to be implemented for smooth operation of the system. In order to have a close monitoring of the progress and development it is a welcome step that the UCC meeting will now be coordinated by NERPC as another Sub-committee to address various issues. He requested all the members to continue to attend the meeting in future for fruitful deliberation.

GM, NERLDC at the outset thanks MS, NERPC and his team for taking up such a challenging task under their aegis and express that the meeting will now carries more weight. He briefly mentioned the history of the UCC forum and why earlier it was earlier coordinated by NERLDC and wishes the new Sub-committee all the success in future.

Thereafter, Member Secretary requested Shri B. Lyngkhoi, Director/SE(O)to take up the agenda items for discussion.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF THE 21st MEETING OF UNIFIED LOAD DISPATCH COORDINATION COMMITTEE.

SE(O) informed that minutes of the 21st meeting of UCC held on 29th December, 2014 at Guwahati were circulated vide letter No. NERLDC/UCC/NEULDC/2014/2046-2072 dated 02nd February, 2015.

The Sub-committee confirmed the minutes of the 21st UCCM as no comments/observations were received from the constituents.

During 111th OCC meeting, all the constituents agreed that UCC meeting, presently coordinated by NERLDC, should be a part of Sub-committee meeting of NERPC and necessary amendment of Conduct of Business Rules (CBR) of NERPC in this regard may be endorsed. This is in line with the practice followed in Northern Region. Accordingly, the same was approved by the 15th NERPC meeting.

a. Re-naming of UCC forum as "North Eastern Telecommunication, SCADA & Telemetry Sub Committee Meeting – NETeST".

Deliberation in the meeting

The forum unanimously approved the above naming of Sub-committee.

b. Members of the Sub-committee:

Deliberation in the meeting

It was agreed that constituents would be represented by officials at least of the rank of Superintending Engineer/GM/Head of Communication & Logistics. The convener of meetings would be Superintending Engineer of NERPC.

The Sub-committee noted as above.

c. Finalization of Scopes of NeTEST Sub-committee:

- a) O&M Issues & Project Issue
- b) Future Perspective of communication & SCADA system in region.

Deliberation in the meeting

The Sub-committee noted as above.

A.1 <u>Status of SLDCs in NER:</u>

The status of setting-up of SLDC as informed by POWERGRID during 113th OCC meeting is given below:

UPGRADATION OF SLDCs

NEW SLDCs

SN	State	Completion Target	
1	Assam	30.09.2015	
2	Tripura	31.10.2015	
3	Meghalaya	31.10.2015	
4	NERLDC	30.09.2015	

SN	State	Completion Target
5	Manipur	30.11.2015
6	Nagaland	31.03.2016
7	Mizoram	31.03.2016
8	Ar. Pradesh	31.12.2015

EE, SLDC Ar. Pradesh informed that surface area required by Alstom is more than area available with them and this has to be reviewed again. Moreover, as mentioned earlier earthing problem has to be carried out in the scope of POWERGRID. Mizoram, Nagaland endorsed the view of Ar. Pradesh.

The Sub-committee requested POWERGRID to ensure that Alstom, POWERGRID & constituents should have a frequent review meeting to sort out the deficiencies before commissioning of SLDCs.

During 114th OCC meeting, DGM (AM), NERTS informed work is progressing as per schedule. Regarding Communication between SLDC/RLDCs he proposed that it be taken up in the next UCC meeting.

Deliberation in the meeting

The Sub-committee discussed the scheme in totality viz.

- a) Status of different SLDC s-A presentation by Alstom
- **b)** Status of building by Nagaland & Mizoram---respective state may comment.
- c) Status of permanent building by Arunachal Pradesh
- **d)** It is proposed that each utility may kindly take care for more involvement during RTU & SCADA installations at Site.
- e) Any other Issue

ALSTOM representative through a presentation intimated the following:

Name of SLDC/	STATUS		
RLDC	STATUS		
	TOC issued by NERTS after completion of 1000hrs SAVT on		
Assam	30/09/2015. VC yet to be implemented.		
	SAT completed SAVT will start on 20/11/2015. Completion date		
Tripura	07/01/2016.		

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Meghalaya	SAVT completion 30/01/2016.		
NERLDC	SAVT completion 30/01/2016.		
NERLDC backup	Integrated FAT completion 30/01/2016.		
Manipur	Integrated FAT completion 31/03/2016.		
	Building vacation has started. ALSTOM would start work by		
Mizoram	25/11/2015. TOC by 31/03/2016.		
	Building vacation has started. ALSTOM would start work by		
Nagaland	25/11/2015. TOC by 31/03/2016.		
	Partition at existing Control Room can be completed in tandem.		
Arunachal PradeshALSTOM to send schedule of works to Ar. Pradesh. TOC31/03/2016.			

Note:

The forum also requested M/s ALSTOM to expedite commissioning of new SLDCs by squeezing time for Integrated FAT. The delay in supply of servers (gen9) by Alstom was discussed where Alstom intimated that servers/HP (delay due to HP) will be supplied soon (15.11.15) and would soon take up integrated FAT. Also feasibility of simplified FAT for Manipur to be explored by Alstom through LD&C-POWERGRID. Further, Alstom to expedite supply of DG sets and other associated items. Forum intimated to Alstom that no further delay is expected for any such issue such servers etc. of HP. Alstom to ensure supply of SM Nagar RTU in time for S.M. Nagar – South Comilla T/L

Any communication link for SLDC-SCADA EMS project if required (at Ethernet level) but not readily available in ULDC network may be taken from POWERTEL on payment basis for early completion of project work (VC, ICCP etc.-multiple links required.).

Forum also requested all states to sign AMC. Constituents agreed.

The Sub-committee noted as above.

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

A). POWERGRID

- a. 400 KV Balipara-BNC Lines 1,2 &3 data not reporting & line-4 data showing more than double (wrong)
- b. Mariani-Mokokchung 220 KV line MW/MVAR data suspect.
- c. KOPEX SAS out from 20.08.2015.
- d. Kolasib out from 27.08.2015 (Modem problem)
- e. 220 KV Misa-Dimapur line 1&2, Dimapur Transformer 1&2, 132 KV Dimapur-Dimapur line 1&2, telemetry data not updating correctly.

- f. Salakati data updating is very slow 6mins against 10 secs results inconvenience to Grid operators & further inter-regional exchange not getting updated correctly.
- g. Most of the CS RTUs are on single link due to 2nd link failure (responsibility POWERGRID) resulting lack of redundancy. List is as follows.

1)800 KV HVDC_BNC (Only one channel made)

- 2) 400 KV MISA (2 channels made but only 1 available)
- 3) 400 KV Bongaigaon (Only one channel made)
- 4) 400 KV Silchar (Only channel made)
- 5) 220 KV Dimapur (One channel working)
- 6) 220 KV Salakati (Only one channel made)
- 7) 132 KV Imphal (2 channels made but only 1 available)
- 8) 220 KV MOKOKCHUNG (Only one channel made)
- 9) Ranganadi ISGS (Only one channel made)
- 10)132 KV ITANAGAR (Only one channel made)
- 11) KATHALGURI, ISGS (Both channel channels out)
- 12) PALATANA, ISGS (Only one channel made)
- 13) 132 KV Kumarghat (2 channels made but only 1 available)
- 14) LOKTAK ISGS (2 channels made but only 1 available)
- 15) KHANDONG, ISGS (2 channels made but only 1 available)
- 16) JIRIBAM (2 channels made but only 1 available)
- 17) AIZAWL (2 channels made but only 1 available)
- 18) BADARPUR (2 channels made but only 1 available)
- 19) 220 KV MARIANI (Only one channel made)

Deliberation in the meeting

- a. For Balipara- BNC III & IV by 15/01/2016(15/12/2015). New RTU at BALIPARA to be commissioned shortly. NERLDC has been asked to rearrange database by removing Kameng feeder as analog ports at Balipara is not working. However, NERTS will confirm healthiness of left over ports to NERLDC.
- b. Matter would be sorted by November, 2015
- c. ABB-SAS Service Engineer and POWERGRID Engineer from MISA end will be deputed to sort out KOPEX SAS issue.
- d. Kolasib data is out due to LILO of Badarpur-Kolasib Line by Mizoram which is requested to be restored by Mizoram soon.
- e. Dimapur RTU card problem would be solved by 15/12/2015(pl note S900 supply/support not available). Dimapur-NERTS to confirm healthiness of remaining ports by a week to NERLDC for SCADA DATA BASE change if any.

- f. Alstom will depute someone for attending the issue- SCT software on C264 RTU by 30/11/2015. Further new RTUs are in the process of being commissioned within two months.
- g. For item No. g.2, g.4 & g.19 rectification would be done by one month. Rest would be completed within four months.

The Sub-committee noted as above.

B). NEEPCO

- **a.** Doyang HEP out from 24.01.2015
- **b.** Kopili HEP out from 09.05.2015.
- c. Ranganadi HEP out from 31.08.2015 to 19.10.2015 but unstable.
- d. Kathalguri RTU out from 16.10.2015.

Deliberation in the meeting

NEEPCO informed that procurement of new RTUs are already underway. Within 4(four) month they replace KOPILI, KATHALGURI, DOYANG RTUs. New RTU of AGTPP would start responding by 15/12/2015. For RHEP NEEPCO would explore possibility about replacement of cards.

The Sub-committee noted as above.

C). AEGCL:

In new system 20-25 RTUS are reporting against 51 RTUs. This creates loss of observability of NER Grid.

Deliberation in the meeting

AEGCL informed that most RTUs are not reporting due to malfunctioning of ports. For this interchange of Serial & Ethernet port configuration is required. M/s ALSTOM was requested to arrange training with the help of NERTS for the above and for the resulting database upgradation of RTU (101 to 104) at Sisugram/Saru & SLDC(SCADA end change). Alstom confirmed of the same with a request that to-&for travelling charges to be paid. Forum agreed to book the same in projects.

There was in-principle concurrence of the forum for inclusion of new RTUs for AEGCL under the "Upgradation /Expansion of SCADA/EMS System for NER" of M/s ALSTOM. If new RTUs are supplied & installed , then AMC will also be included. Further Alstom confirmed to come up with billing-cost break up so that Assam may optimize their card/RTU requirement. AEGCL confirmed to look to proposing inclusion of min 10nos. RTU(without LDMS) but will confirm soon.

The Sub-committee noted as above.

D). MePTCL/MeECL:

Generating Stations; LESHKA (84 MW) & Umiam-II (18 MW)

Sub-Stations: 400 KV Byrnihat S/S, 220 KV Killing S/S & 132 KV Khliehriat S/S

Deliberation in the meeting

Umiam-II & Khliehriat already reporting.

Leshka would start reporting by 31/12/2015. For Killing & Byrnihat approval would be taken for OPGW stringing.

E). TSECL:

7-8 RTUs are reporting out of 15 RTUs.

Generating Stations: Gumti (since Jan, 2011), Baramura (partial, 5-5 NA, CB status Suspect), Rokhia (U-3 NA, all CB status suspect)

Sub-Stations: Badharghat, Kamalpur, Jirinia, Budhjungnagar, Ambasa, Udaipur (132 KV Palatana line not connected.

Deliberation in the meeting

With the integration of new SCADA /RTUs problem will be solved.

F). Manipur (4 RTUs), Nagaland (3 RTUs), Mizoram (1 RTU) not reporting

The problem will be addressed after installation of SLDCs along with new RTUs. *The Sub-committee noted as above.*

A.3 Data Telemetry & Communication problem during Grid disturbances:

It has been observed that during most of the cases of Grid disturbances, data telemetry data & voice communications systems are very much affected resulting in non-availability of most of the SCADA data causing poor visibility of the existing Grid as well as communication with many locations remained out causing difficulty in information sharing. As a result of these, restoration becomes very difficult and causes avoidable delay. All concerned are requested to kindly ensure data & voice communication systems without interruption for smooth & secure Grid operation.

During 114th OCC meeting, DGM(AM) NERTS informed that VoIP would be established by March- April 2016.

The Sub-Committee referred this item to next UCC meeting for further discussion.

Deliberation in the meeting

The forum voiced concern and hoped that with the completion of New SCADAupgradation project by M/s ALSTOM and other communication projects in NER, the situation would improve.

After detailed deliberations, members suggested that specific event wise issues may be pin pointed so that matter may be sorted and rectified. As new SCADA-Upgradation project of NERLDC system is almost completed, analysis report of the same may be achieved from AISTOM.

The Sub-Committee noted as above.

A.4 Dedicated Voice Communication:

During 113rd OCC meeting, NERLDC informed that under existing VOIP communication system (executed by ORAGNGE Ltd) NERLDC requested to provide two nos. of voice links in all 132kV station and four no of voice communication channel at important station like BNC HVDC, all 400kV stations such as Bongaigaon, Balipara, Misa, Silchar (currently no voice communication), BYRNIHAR, AZARA, Palatana and all CGS (NTPC-BTPS, Ranga, Kopili, Khandong, Kathalguri, Doyang, RC Nagar) stations.

POWER GRID accepted the proposal and assured to do the same at the earliest.

During 114th OCC meeting, DGM(AM), NERTS informed that above scheme is likely to be completed by March/April, 2016. Further, he suggested to discuss the issue in forthcoming UCC Meeting

The Sub-Committee decided to refer this item to the next UCC meeting.

Deliberation in the meeting

Dedicated voice communication system will be taken care by NERTS as per instruction of GM-NERLDC's communication to GM-AM, NERTS

The Sub-Committee noted as above.

A.5 Non-Display of CFE Data in existing SCADA system:

In the existing SCADA System, it has been seen that though many filed sites report till CFE data is not displayed in the console. AEGCL would like to know how this problem will be sorted out in the SCADA Up-gradation Project. As per deliberation of 21st UCC meeting POWERGRID informed the forum that the matter was discussed with Alstom over Phone and Alstom reverted that CFE/SCADA will be configured as per TS and there will be no such issue. POWERGRID requested all state SLDC representatives to provide a list of queries which in consolidated manner would be sent to Alstom. POWERGRID also requested all utilities to take care of such issues during training in parallel.

Deliberation in the meeting

After detailed deliberation in the forum M/s ALSTOM was requested to look into the matter and replace terminal port/splitter port if required.

The Sub-Committee noted as above.

A.6 Rates of new CARDS, service support, assurance of lifespan by M/s ALSTOM:

As per the resolution of 20th UCC meeting held at Agartala on 28th August 2014, the forum has requested M/S ALSTOM to keep rates of new Cards justifiable & service support/defect liability period, assurance over life span of newly supplied equipment/quality in India should be at par with international level.

AEGCL would like to have any reference in this regard mentioned above so that we can initiate afresh the procurement process of C264 RTU spare cards as they have quoted a very high price in their previous proposal.

The 21st UCC forum opined that AEGCL may write/take up the matter with highest authority of M/s Alstom with a copy to GM, NERLDC & GM, NERTS.

It was also felt by forum that price justification issue & quality control of services/supply may be faced by other utilities also in future. It was opined that matter may be intimated by this forum to NERPC as the same, indirectly would affect/may delay implementation of diff telemetry regulation & so may affect grid security & proper monitoring.

Deliberation in the meeting

Representative of M/s ALSTOM informed the forum that cards cannot be manufactured separately, there must be AMC of RTU to do so. The forum requested ALSTOM to give fresh proposal for AMC of old RTUs keeping in mind quality and price concerns to AEGCL. AEGCL was also requested to take up the matter with highest authority wherever RTU AMC is required.

The Sub-Committee noted as above.

A.7 <u>Status of SDH installation by POWERGRID:</u>

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.

Deliberation in the meeting

NERTS informed the forum that scheduled completion is end of February 2016.

The Sub-Committee noted as above.

A.8 <u>Status of phase –I of URTDSM project:</u>

As per deliberation of 21st UCC meeting survey completed for NER part. FAT call raised by M/s Alstom. It was informed that NER sites are not under 1stphase as planned by CC-POWERGRID. NER utilities/forum requested POWERGRID to expedite the same and works may be completed by March 2015 as & where connectivity available.

Deliberation in the meeting

NERTS informed the forum that target date of completion is March 2016.

The Sub-Committee noted as above.

A.9 <u>Replacement of Multiplexers:</u>

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.

Deliberation in the meeting

On query by forum, NERTS informed the forum that separate tendering process has been initiated for replacement of MUX. OBD date would be intimated separately. Forum also requested that node equipment of any SLDC or any other node (OPGW link planned but terminal equipment not considered), may also considered under qtty variation once the order is in place

The Sub-Committee noted as above.

A.10 Finalization of Consolidated OPGW Network & Installation Project:

As per GOI direction, MW links are being replaced by OPGW links and as discussed in the last 19th &20th UCC meetings, the project is to be completed by July 2014. Latest status may be appraised by POWERGRID and also redundant channels for single channel RTUs planned may be appraised.

- **a)** POWERGRID has already submitted the OPGW network for region like MW vacation, Expansion, ULDC network etc.
- **b)** It is requested that all constituents may submit the communication plan which have been taken up by them in region.
- c) Further it is requested that min 2 pair of fibers of any communication system laid in region may be left ready for ULDC purpose of State & NERLDC telemetry/metering scheme.

Deliberation in the meeting

Manager, NERTS through a presentation illustrated the various communication projects undergoing execution in NER (copies of network-initial assessment attached as **Annexure – A.10**.

Forum agreed that out of FO network established by State, 2nos. fiber pair will be kept intact for ULDC purpose. Further out of FO OPGW network established by CTU under (ULDC/MW Project/Expansion/NERSSIP/132kV scheme), it is recommended that half of total number of fibers may be kept for ULDC & grid security purpose. (earlier it was 6 nos. of 12nos. for 12F FO , now 12 nos. out of 24fibers for 24FO)

The forum advised POWERGRID and other constituents to share communication network diagram with NERPC for future course of action.

The Sub-Committee noted as above.

A.11 Backup HDR & SOE Data:

SOE &HDR data are highly needed for Grid Operation and for analysis. SLDCs are requested to keep periodical backup of HDR &SOE. Also SOE files are not exchanged/followed amongst RLDC & SLDCs on weekly basis against decision made in earlier meetings.

In 21st UCC meeting NERLDC intimated the importance of HDR/SOE backup for analysis of system performance and different kinds of report preparation for higher management. But it has been observed that all SLDCs are not taking backup of HDR and SOE and hence requested again all SLDCs to start taking backup.

Deliberation in the meeting

The members concurred that a common practice should be imbibed to preserve SCADA data from the very beginning of new SLDCs functioning. The forum suggested the item will be reviewed later and dropped in the meantime.

The Sub-Committee noted as above.

D. NEW ITEMS

B.1 Video Conferencing (VC) in NERPC:

The issue of setting up of VC in NERPC was discussed with POWERGRID and they intimated that supply & installation of VC for NERPC will be carried out by them. As per information from POWERGRID one set of VC with MCU is kept for NERPC under NERLDC SLDC SCADA EMS gradation LOA. But the same is yet not dispatched to NERPC.

Deliberation in the meeting

After detailed deliberation it was agreed that:

- In line with ERPC, NRPC-other region, one no. VC system with MCU under SLDC upgradation project is to be provided by NERLDC to NERPC for smooth functioning of NERPC for grid monitoring purpose, SD arrangement, meeting etc. Target-December, 2015.
- POWERGRID would provide two links, one for SCADA and other for VC from NERLDC main to NERPC within 30/11/2015. Links may be taken from POWERTEL as required.

Further NERTS requested that one no. 3x2 VPS is proposed to be procured for CTU (under SLDC SCADA Project- new item under new heading) for assisting for grid management purpose which will be provided to NERTS CPCC for better coordination of system operation as an support coordination to RLDC/SLDC for managing POWERGRID station from a common center. Forum agreed in principle and requested submit cost

The Sub-Committee noted as above.

B.2 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.

Deliberation in the meeting

The forum agreed that training was crucial for employees of new SLDCs. NERLDC viewed that separate training for Data Validation & Day to Day operation needs to be conducted. AEGCL & Tripura agreed to provide on job training for 2 officials of each state LDC. New SLDCs will finalize deputation of their engineer to Assam & Tripura SLDCs

The Sub-Committee noted as above.

B.3 <u>Strengthening of PLCC System by NER States:</u>

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. Present network may be submitted to NERPC.

Deliberation in the meeting

After detailed deliberation, it was decided that all state utilities will submit the PLCC network of their own state system by 1month to NERPC and further take up measure like repair, AMC etc for revival of PLCC system. Especially Nagaland, Manipur,

Mizoram (where new SLDC is being targeted for completion) had been requested to revive PLCC system.

Present PLCC network of state may be submitted to NERPC within one month.

The Sub-Committee noted as above.

B.4 <u>Present Condition of PMU/PDC Client PCs & Phase notations in NER Grid:</u>

Assam, Tripura, Meghalaya & NERLDC may kindly discuss the same. NERLDC may kindly elaborate use of PMU data to forum for fault analysis.

It has been found that PMUs are showing different phasors w.r.t different nodes of same grid. It is suspected that there are change in phase notations in NER grid & connectivity. Forum may comment for correction if any.

Deliberation in the meeting

The forum advised that mixing of Phases (change in phase reference w.r.t. one utility is sometimes different from another) as reflected by PMU data in regional grid is to be corrected. Forum requested that the same may be taken up OCC.

The Sub-Committee noted as above.

B.5 <u>New SCADA – Upgradation Project/PMU Related Issues:</u>

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.

Point-4: PMUs of Bongaigaon, Badarpur & MISA are connected to the CVTs of Lines. Any shut-down of the lines to which the PMUs are connected leads to non availability of data from that PMU. Specially the Bongaigaon PMU is a very critical as there are inter-regional links from Bongaigaon and any shutdown of the Bongaigaon -Balipara II leads to outage of data from Bongaigaon PMU which is a major hurdle to system analysis. POWERGRID is requested to arrange to connect the Bongaigaon PMU to the bus PT very urgently and shift MISA and Badarpur PMU to Bust PT from CVT subsequently.

Deliberation in the meeting

Point 1: Target date of providing 2nd link for SCADA/ EMS up-grade project: 30th November, 2015.

Point 2: As discussed in A 1 above.

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

Point 4: After detailed deliberation POWERGRID was asked to change connection of PMUs to bus CVTs. Target-1.5months. NERTS, PGCIL agreed.

The Sub-Committee noted as above.

B.6 Status of VOIP Exchange Project Status & Implementation:

As per deliberation of 21st UCC meeting POWERGRID informed the forum that materials of NERLDC has already under transit and will be delivered by a week's time For SLDCs, FAT completed and party has asked for road permit.

All SLDCs/Communication division representatives are requested by NERTS to process for road permit once request received by the party so as to expedite the supply. Target Completion date is May 2015.

Deliberation in the meeting

Representatives of ORANGE Ltd. informed the forum that the entire project would be complete by 31/03/2016. It was deliberated that VOIP exchange is the replacement of earlier exchange of NERLDC & SLDC. The same may not linked with other project. Further all state utilities agreed to receive the remote sub, remote telephones etc at SLDC end from M/s Orange and further State, CTU would transport their allotted materials to own stations & connect thereof. Orange representative confirmed to demonstrate one link for each SLDC.

M/s Orange representative was instructed to depute sufficient manpower for left over works at SLDCs like Assam, Tripura and Meghalaya. Further any additional switch (24 ports) required for full-fledged commissioning works (especially in Assam/Tripura/ Meghalaya/NERLDC) may be provided by M/s Orange as required for full-fledged commissioning. POWERGRID may look in to amendment if any required.

The Sub-Committee noted as above.

B.7 <u>Dedicated Voice Communication:</u>

During 114th OCC meeting, POWER GRID had accepted the proposal and assured to do the same at the earliest.

Deliberation in the meeting

Dedicated voice communication will be provided as pre IOM of GM-NERLDC to GM AM.

The Sub-Committee noted as above as well as in item A.4 above.

Any other item:

1.0 Data of SM Nagar end (against SM Nagar to Comilla (B'Desh) D/C T/L):

Alstom will install RTU at S.M. Nagar end by 1st week of Dec15. As S.M. Nagar being a State SS, TSECL will provide a PLCC for two data paths and two speech paths up to Grid, SLDC. TSECL confirmed of the same. Regarding communication (both voice as well as telemetry) with Comilla substation of Bangladesh it was intimated by NERLDC the same should be through NLDCs of both the countries and only in case the same is not possible then communication directly from Comilla –SM Nagar-SLDC/RLDC-NLDC(I)-NLDC(B)-Comilla may be implemented after consulting Bangladesh authority. NERLDC further reiterated that either of the communication schemes should be in position through redundant channels before start of power supply to Comilla S/s]

The Sub-Committee noted as above.

2.0 VPS for NERTS/CTU:

NERTS requested that one no. 3x2 VPS is proposed to be procured for NERTS/CTU (under SLDC SCADA Project-Alstom LOA-as new item under CS sector heading) for NERTS-CPCC for assisting in grid management & planning purpose for better coordination of system operation as an support system to RLDC/SLDC for managing POWERGRID station from a common center. Forum agreed in principle.

The Sub-Committee noted as above.

3.0 <u>MW Vacation Project:</u>

AEGCL raised the issue for early completion of left over works. NERTS stated that Terminal equipment teams will be deployed by two weeks and left of SDH/PDH work would be completed by 2months where already fiber & panel installed. Further there are some re-works involved (like 24F approach cable in place where already 12 F cable laid) and the same will be completed after March16.

Further additional works or re-work (like shifting to new PLCC room/Telecom room in a FO node station where already once equipment installed as per originally surveyed location) would be taken up on payment basis through KEC. However other works of original scope LOA awarded to KEC will be March 2016. All SDH & PDH equipment which has been installed (with DC supply taken from station) will be reinstalled with new DCPS.

The Sub-Committee noted as above.

4.0 Earthing upgradation of existing earth pits at NEHU:

SLDC-Meghalaya building is constructed by NERTS for SLDC In new site selected by MePTCL within the NEHU S/S complex. But as earth resistivity value is poor in new

location, NERTS would take up further for betterment of existing new earth pits in new SLDC location as per special request from MePTCL.

The Sub-Committee noted as above.

5.0 Data Concentrator RTU for MePTCL:

Further data concentrator configuration issue will be addressed by Alstom directly with MePTCL once scope of original Alstom-SLDC project is over(after SAT on AMC)

The Sub-Committee noted as above.

Date & Venue of next NETeST meeting

It is proposed to hold the 2nd NETeST meeting of NERPC on first week of December, 2015. However, the exact date and venue will be intimated in due course.

The meeting ended with thanks to the Chair.

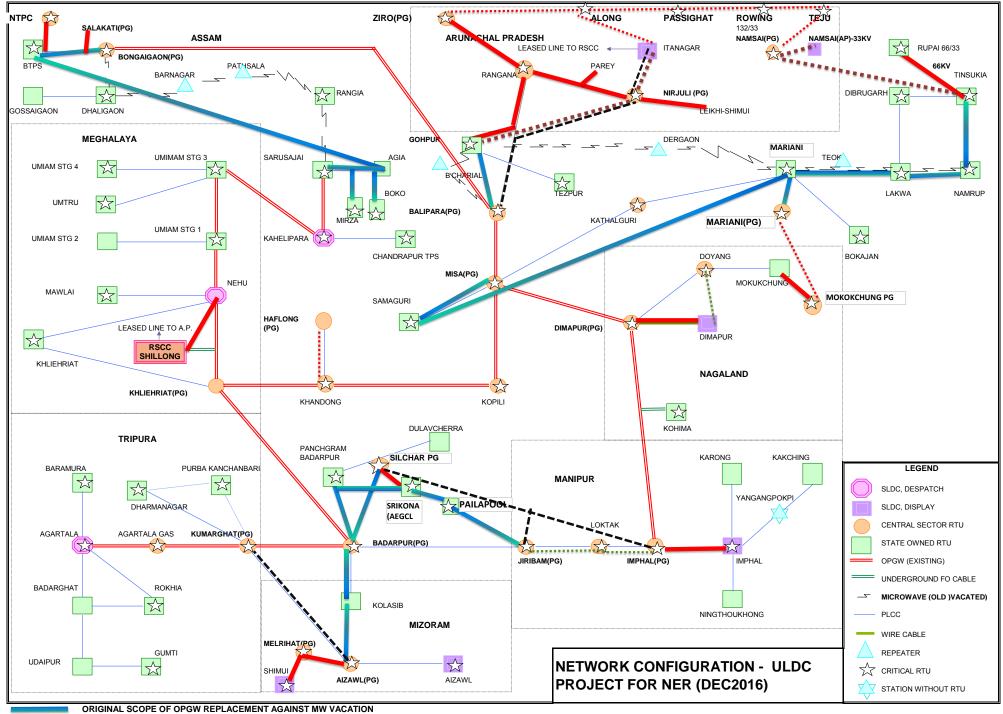
Annexure-I

List of Participants in the 1st NETeST Meetings held on 06/11/2015

SN	Name & Designation	Organization	Contact No.
1.	Sh. Nangkong Perme, EE, SLDC	Ar. Pradesh	09436288643
2.	Sh. B.C. Borah, AGM, SLDC	Assam	
3.	Sh. A.K. Das, AGM, AEGCL (HQ)	Assam	
4.	Ms. P. Biswakarma, AM, (Comn.), Jorhat	Assam	
5.	Sh. Arup Sarmah, AM, Comn. Div.	Assam	
6.	Sh. Uday Sankar Nath, DM, Comn. Div.	Assam	
7.	Ms. Toushita Jigdung, DM, SLDC	Assam	
8.	Ms. Athokpam Sujata Devi, Asst. Mgr, SLDC	Manipur	
9.	Ms. Jayela Wahengbam, Asst. Mgr., SLDC	Manipur	
10.	Sh. D.J. Lyngdoh, EE (SM), SLDC	Meghalaya	
11.	Sh. S.S aha, AE (PLCC)	Meghalaya	
12.	Sh. C. W. Chen, AE, SLDC	Meghalaya	
	No Representative	Mizoram	
13.	Sh. B. Tiameren Ao, EE (MIS)	Nagaland	
14.	Sh. A. Jakhalu, EE (TRANS.)	Nagaland	
15.	Ms. Shampa Sen, Sr. Manager	Tripura	09436120263
16.	Sh. T. S. Singh, GM	NERLDC	09436302717
17.	Sh. V. Kaikhochin, DGM	NERLDC	09436302712
18.	Sh. R. Sutradhar, DGM	NERLDC	09436302714
19.	Sh. S.C. De, Chief Manager	NERLDC	09436335369
20.	Sh. B.S. Roy, Asst. Manager	NERLDC	09436302719
21.	Sh. Bhaskar Goswami, Sr. Manager	NEEPCO	09436163983
22.	Sh. A.K. Sarmah, Dy. Manager	NEEPCO	09435078860
23.	Sh. Bhaskar Mazumder, Dy. Manager	NEEPCO	09436222650
24.	Sh. Sudip Das, Dy. Manager	NEEPCO	09401237613
25.	Sh. A. Patir, GM	PGCIL	09436302529
26.	Sh. P. Kanungo, DGM (AM)	PGCIL	09436302823
27.	Sh. Supriyo Paul, Manager	PGCIL	09436302995
28.	Sh. Sh. J. Bhattacharyya, AGM (O&M)	NTPC	09435720036
	No Representative	NHPC	
29.	Sh. T.Karmakar, AM (Electrical)	OTPC	09435239314
30.	Sh. Prasanta Kalita, Sr. Tech. Consultant	ORANGE BUSINESS SERVICES	08334031012

31.	Sh. Imtiaz Hussain, Manager Projects	ALSTOM	08800795693
32.	Sh. P.K. Mishra, MS	NERPC	
33.	Sh. B. Lyngkhoi, Director/S.E (O)	NERPC	09436163419
34.	Sh. S. Mukherjee, AD-I/AEE	NERPC	08794277306
35.	Sh. Shaishav Ranjan, AD-II/A.E	NERPC	08794276168

Minutes of 1st NETeST meeting held on 06th November, 2015 at Guwahati



PROPOSED LINK QUANTITY VARIATION OF MW REPL PROJECT PHASE2 APPROVED ON 20.8.15-TCC/RPC

TFUTURE PROJECT(OR NOT FINALIUSED BY STATE)
DELETED SCOPE WRT MW REPL PROJECT

