

North Eastern Regional Power Committee

Agenda

For

16th NETeST Sub-Committee Meeting

Time of meeting : 14:30 Hrs.

Date of meeting : 20th February, 2020 (Thursday)

Venue : “Hotel Nandan”, Guwahati.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 15th NETeST Meeting held on 21.10.2019.

The minutes of 15th NETeST Meeting held on 21st October, 2019 at Guwahati were circulated by NERPC vide letter No. NERPC/SE(O)/TeST/2019/1622-1659 dated 7th November, 2019.

The Sub-committee may confirm the minutes of 15th NETeST meeting of NERPC as no comments/observations were received from the constituents.

ITEMS FOR DISCUSSION

A.1 Status of FO works under different projects:

Latest status as per 15th NETeST:

Name of the Project	Latest status may be intimated
MW Vacation & OPGW Project	<p>A. M/s TENDOT</p> <ul style="list-style-type: none">a. WIP in all 14 linksb. Progress affected due to ROW.c. Expected completion March'20. Present status may be provided by NERTS. <p><i>NERTS informed that OPGW link Nirjuli-Ranganadi with LILO at Lekhi is still having ROW issue. Equipment for the above are also considered in NER FO expansion project.</i></p> <p><i>Action: DoP Ar. Pradesh</i></p> <p>1. Regarding Nirjuli-Ranganadi (with LILO at Lekhi & Pare) & Lekhi to Chimpur (Lekhi is pass through to connect Chimpur-SLDC).</p>

	<p>It is proposed that Lekhi (i.e. Chimpu) may be connected from Nirjuli & Pare may be connected from Ranganadi & be commissioned. Accordingly DOCO may be made. Any small left over portion may be done in later course with separate contract when ROW is solved.</p> <p>2. Also, Sihhmui station (Part of Link Zimabawk-Aizawl LILO at Melriat --Sihmui) is to be made ready by P&E, Mizoram & so commissioning getting delayed.</p> <p>Present Status may be updated.</p>
<p>NER Expansion/Additional requirement of OPGW</p> <p>FO</p>	<p>Tripura:</p> <p>1. All OPGW completed except links which are under construction by State TSECL. 257km of 320km. (Actual 257km, 63km-no front)-Completed. Shut down for SMNagar-Palatana link is delayed (SD of power line crossing SM Nagar-Palatana & 400KV Silchar-Palatna) and so is delaying other Fiber linking with SLDC.</p> <p>2. 63.522 km (02 links viz. SM Nagar~Rokhia & SM Nagar~Monarchak, line is under construction) front not available due to construction of 2 lines by TSECL</p> <p>Target : Nov-Dec19(subject to Shut down work done in Nov19)</p> <p>Present Status may be updated.</p> <p>Meghalaya :</p> <p>WIP for both equipment and OPGW part. 40km completed out of 62km (WIP). Completion by Nov., 2019. Action: MePTCL & NERTS.</p> <p>Manipur :</p> <p>1. 132kV Loktak (NHPC) ~ Rengpang: Team retreated after one trial (during Loktak –Imphal was done)/ Links around Loktak area will be tried at one go to avoid ROW/ miscreant/terrorist prone area.</p> <p>Manipur: Erection: 290/365km. Target completion: As per NERPC meeting Annexure A.2 Nov19-March20. (Hindrances are taken care with help from State Transmission authority, MSPCL)</p>

	<p>Nagaland:</p> <p>26km completed out of 86km OPGW stringing WIP for Wokha-Kohima. SLDC, Nagarjan /Dimapur-State & Mokokchung-State are already connected to wide band in Sept., 19. DoP, State is to co-ordinate for early construction of TL of LILO part of Wokha –Kohima LILO at New Kohima (same is delaying the part of FO expansion project). DoP has been communicated through a letter for readiness of PLCC network as well.</p> <p>Present Status may be updated.</p>
Upgradation of ULDC FO node	Present Status may be updated.

NERTS may discuss the present status:

Critical Issues against project implementation may be discussed

Name of the Project	Critical Issue
Upgradation of ULDC FO Node	Non-availability of fiber in Misa-Dimapur-Imphal (old OPGW) as line is under diversion & continuous cuts are encountered & Space in Kohima.
MW Vacation/ FO expansion	<p>1. Non readiness of Shimui,Mizoram from P&E dept is hindering completion of final works(RTU is not powered up, OPGW equipment is not powered up). As per last meeting, transformer was to be arranged by 2 months wef Oct19. This is also delaying MW vacation OPGW project</p> <p>2. Further originally, Aizawal-PG- to Ziambawk-2(Zuntui) OPGW was completed (by Ten Dot) and even equipment(Fibcom/Tejas) were supplied under MW vacation /FO Expansion project .</p> <p>Later, P&E,Mizoram has planned for shifting the Zimabawk-2(Zuntui) substation itself to a different location. P&E,Mizoram may immediately take up for necessary shifting of Equipment etc to new location along with connecting new location/substation via OPGW. POWERGRID proposes that OPGW will be arranged (by POWERGRID) from spare of FO Expansion. However stringing of OPGW to connect Zuntui (Zimabawk-2) and then to SLDC may be immediately taken up by P&E,Mizoram.</p>

	<p>Note: Original plan as per MOM with P&E, DoP- Mizoram:</p> <p>Aizawl_PG (i)---(via 132kV line, to be done by PGCI)— Zuntui/Zimabawk-2[ii]---(via 33kV Line OPGW/ADSS to be done by P&E)--SLDC- Mizoram[iii]</p> <p>Link (i)---(ii) completed by PGCI but P&E, Mizoram is to ensure completion (ii)—(iii) of shifting Zuntui SS & new work related to shifting(ii) along with OPGW</p> <p>3. Connectivity of SLDC-AP via connecting Nirjuli-Leikhi-SLDC is still suffering from ROW issue in Nirjuli-Ranganadi Line</p>
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NERTS may please submit the latest status link-wise under various FO projects. NERTS has written to DOP, Nagaland; TSECL, Tripura along with details of work executed under NER FO Expansion. Both State & NERTS may take up for joint verification of communication links & may be completed at the earliest.

Members may please discuss.

B. NEW ITEMS

B.1 Strengthening of PLCC System by NER States:

As per discussion in previous meetings the following were supposed to be completed by Jan'19:

- a. 18th TCC/RPC consolidated network of OPGW.
- b. NERPSIP communication details.
- c. Assam, Manipur, Meghalaya communication map submitted by the respective utilities.

In 15th NETeST meeting GM-NERLDC stated that NERLDC team should be invited to the quarterly review meeting on NERPSIP projects conducted by MoP. The sub-committee noted as above.

NERPC will write a letter to ED, NERSIP-POWERGRID & NERPSIP-Nodal officer, AEGCL for a joint meeting between AGM (Communication), AEGCL and NER-SIP team for proper co-ordination.

Members may please discuss.

B.2 Improvement of data availability of NER:

As per IEGC 4.6.2, all users shall ensure telemeter power system parameters to RLDC. The present level of data availability of NER grid is as tabled in the **Annexure-1**, which is less than 50% in the region.

SN	Utility	Status as informed in 15 th NETeST
1	Assam	<p>It was discussed that the SAS upgradation projects in Assam owned Stations has severely impacted the real-time data availability of the respective stations in the Assam-SLDC.</p> <p>Hence, the progress of SAS related works needs to be closely monitored by a team formed by NERPC.</p> <p>The NERPC will write a letter to MD-AEGCL to expedite the completion of SAS works.</p> <p>As per mail sent by AEGCL the target dates were updated. However, the target dates are not being followed on strict basis. NERLDC requested NERPC to pursue the matter with higher authorities of AEGCL.</p>
2	Tripura	<p>As informed by NERTS only 12 out of 25 stations of TSECL will be covered into NER FO expansion projects. Stations which will be covered under FO network are: Dhalabil, SM Nagar, BJ Nagar, Gumti, Amarpur, Udaipur, Rokhia, Baramura, Badharghat, Satchand, Sabroom and Agartala.</p> <p>NERLDC requested TSECL to submit an action plan for establishment of communication link in remaining 13 stations which are not covered in NER FO expansion project. NERLDC requested TSECL to provide necessary actions plans for improvement of data availability as there is no significant improvement in data availability and data availability is in range of 25 to 27% since last nine (09) months.</p>
3	Meghalaya	<p>NERLDC emphasized that all the telemetry data like MW, MVAR, kV, Hz, OLTC, Isolators, CBs and SOEs to be provided by field to SLDC as well as RLDC for effective grid operation.</p> <p>MePTCL mentioned that it is concentrating on getting the analog and CB data at present. The Isolators data will also be subsequently considered as it requires procurement of DI cards for C264 RTUs which is under discussion with M/s GE T&D India Limited.</p>
5	Manipur	<p>Manipur has to do integration work of all RTUs reporting over FO network. Tipaimukh was reporting through GPRS, but now it is not reporting. The same need to be rectified at the earliest.</p>
6	Nagaland	<p>Out of 17 stations only 4 (Nagarjan, Kohima, Mokokchung, Power House) stations are reporting. Nagaland should submit action plan for remaining 13 stations for providing the data availability.</p>

7	Mizoram	<p>NERTS mentioned that RTU at Kolasib will be delivered by Dec'19. It was also stated that the GPRS works in Zuangtui and Lungmual has been completed and necessary integration works will be completed within one (01) week and the data will be available at SLDC and RLDCs. (Internet link static ip on public domain is to be provided by P&E, Mizoram).</p> <p>A new 25 MVA ICT has been procured by DoP Mizoram and will be installed at Sihhmui station. Once it is charged data will report through FO link.</p>
8	Ar. Pradesh	<p>EE, DoP AP stated that the data of four substations (i.e. Along, Bhalukpong, Khupi and Lekhi) is available in CFE but it is facing some issues in the network switch. After integration of Dikshi over VAST, some new network architecture adopted (one router is incorporated) & some re-work (Server IP & RTU IP management) is to be done by GPRS vendor. Once the network switch issue is rectified by GE, then Along, Bhalukpong, Khupi and Lekhi data will get reported on GPRS.</p> <p>It was also mentioned that VSAT for eight (08) locations was proposed but only one (01) location in Chimpur station has been approved. GM, NERLDC suggested that Chimpur is a local station and reporting can be directly through LAN cables. The VSAT planned for Chimpur station shall be shifted to some other remote location for data transfer.</p> <p>GM-NERLDC requested AP to submit an action plan for establishment of communication in its stations as several stations are not covered under FO Expansion projects.</p>

NERLDC request NERPC to advise TSECL, DoP-Mizoram, DoP-Arunachal Pradesh and DoP-Nagaland for improvement of the data availability of respective state-owned stations.

Periodic reminder letters regarding data-availability has been sent to all constituents but no response has been received yet. Due to non-responsiveness for a long-time, the matter of non-availability of data in case of Arunachal Pradesh and Tripura has been escalated to CERC in form of a petition for necessary support. All associated letters are attached as **Annexure-2**.

All constituents should have a detailed action plan and deadlines for strict compliance to ensure 100% reliable & redundant data to NERLDC.

NERLDC may please deliberate

B.3 Status of URTDSM

Angle error and rectification: Angle Error/Phase sequence error was solved in six (06) number of stations out of nine (09) stations in the month of September'19. NERTS is requested to solve the issue in remaining three (03) stations namely, 220 kV Dimapur (PG) S/s, 220 kV Mariani (AS) and Tinsukai. Further, the angle issue also persist in 400 kV Bongaigaon – Siliguri Line 1. All the angles are measured with respect to 400 kV Bongaigaon Bus.

NERTS has reverted to NERLDC with the correction scheme implemented as was intimated by NERLDC System study group earlier. Further once NERLDC reverts back with proposed action plan(what to do at secondary ckt, after system study), action would be taken care by NERTS. NERLDC & NERTS may confirm.

Status of Loading of Power System Analysis package by IIT Mumbai:
Updated status may be informed to forum.

Long outage of PMUs: Following PMUs are not reporting at NERLDC.

Sl. No.	Location	Parameter Not reporting
1.	Mariani (AS)	220 kV Bus 1 and 220 kV Bus 2
2.	Misa (AS)	220 kV Bus 1, 220 kV Bus 2 and 220 kV Killing Line 1
3.	Samaguri	All Parameters

NERTS, NERLDC may please intimate the latest status

B.4 GPRS connectivity for Substations and Leased line for SLDC:

In 15th NETeST meeting the following timeline(s) were agreed to by the different utilities:

Name of utility	GPRS SIM/Broadband	Current Status
TSECL	Data is reporting for P K Bari and Dharamnagar. For others, SIM/Bband to be provided for 79 Tilla, Barmura, Satchand, Sabroom, Amarpur, Gumoti, Rabindranagar, Belonia, Bgafa, Rokhia. Matter is delayed for a long time and TSECL have been pursued for long time. Party wants short closure and payment. TSECL may provide a schedule of site visit along with date when activated 3G SIM/Bband will be handed over.	Status to be updated.
MSPCL	All stations are reporting. Additional: 2 stations Kongba and Tipaimukh which were not part of GPRS scheme will be done separately.	Status to be updated.
DoP Nagaland	8 stations are reporting and 4 stations are not reporting. For Zuheneboto 66kV, Tuensang 66kV, Ganesh Nagar/ Paren (Vodafone, Airtel) SIM signal problem is there. Modem was installed in the month of July, 2019. SAT is not signed by customer. Broadband is required for rest of the stations. For MON station, SIM is not available.	Status to be updated.
P&ED Mizoram	After long persuasion, SIM was given for Indoor Substation, P&E Complex, Luangmual (State) / Zemabawk-I, Zemabawk - II / Zuangtui. SIM was provided but Lease link yet to be provided. The internet in the Lease link is having non-static IP. It was communicated to SE/EE SLDC. One dedicated person is required to be deputed from SLDC for needful.	Status to be updated.

DoP AP	<p>Data tested at SLDC via protocol analyzer for Naharlagun (Lekhi), Along, Bhalukpong, Khupi. Further, SLDC may take up with GE for needful integration and if any issue faced, same may be shared with POWEGRID as well. It was intimated to SLDC through email and letter.</p> <p>Authorized representative from AP SLDC also should visit sites viz., Jairampur, Deomali, Daporijo, Pasighat for joint checking. SLDC may take up with PMAs (through POWERGRID, if required) for completion of rest of stations. If any issue, POWERGRID will intervene.</p>	Status to be updated.
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TSECL/MSPCL/DoP Nagaland/P&ED Mizoram/NERTS may please inform the latest status.

B.5 Selected cases of sub-stations for rectification of corresponding data/communication related issues:

a) NEEPCO:

- i. **Ranganadi:** The matter was discussed in 14th NETeST Meeting and it was deliberated that NERTS will make 2nd path of PLCC between BNC and RHEP as BNC is wideband location. The proposed path will be Ranganadi to BNC (on PLCC) and BNC to NERLDC (on wideband) subsequently. The work will be completed by first week of Sep'19.' The status of completing the LILO part at BNC needs to be deliberated.

- ii. **Kathalguri:** VoIP phone is not functioning since 21st January 2020.

NEEPCO may address the different issues of each station on priority with strict deadline.

NEEPCO may please intimate the status.

- b) **NTPC BgTPP:** Only one (01) VoIP phone is available and that too in "Switchyard Control Room". No phone is available in the Unit Control Room (03 in nos.).

The matter was discussed in 15th NETeST meeting but no representative from NTPC was present. However, the forum recommended that NTPC should provide dedicated VOIP phones in all Unit Control Rooms on priority.

NTPC may provide dedicated VoIP phones in all Unit Control Rooms on priority with strict deadline.

NTPC may please intimate the status.

- c) **POWERGRID Salakati:** The matter related to more time in pooling of data was discussed in 15th NETeST meeting on which NERTS informed that CPU card has been replaced. The RTU has become old and hence approval for its replacement has been accorded in NERPC meeting.

NERTS may please intimate the status.

d) OPTC Palatana: Dual-channel availability for real-time data telemetry of Palatana station was to be ensured for which shut-down of 400 kV Palatana-Silchar D/C station was accorded in the OCC meeting held in Nov'19 in order to facilitate the putting up of OPGW in certain tower-crossing section on 132kV Palatana-Surjamani Nagar S/C line.

NERTS & OTPC may please intimate the status.

e) NHPC Loktak: New RTU/Gateway was under procurement process by NHPC and it was informed in 15th NETeST meeting that the award of work followed by the execution will be completed by Jan'20.

NHPC may please intimate the status.

f) Meghalaya owned stations:

- i. **Killing:** PLCC issues in the sub-station due to which the data is not stable.
- ii. **SLDC NEHU may update the stations as per observations, in table, in SCADA system of SLDC. Necessary help will be extended by NERLDC.**

Sl. No.	Station Name	Observation
1.	Ampati	Entire Station not modelled at SLDC.
2.	Rongkhon	EMS database not modelled in SLDC. Only SCADA database is modelled.
3.	Nangalbibra	EMS database not modelled in SLDC. Only SCADA database is modelled.
4.	Nongstoin	EMS database not modelled in SLDC. Only SCADA database is modelled.

MePTCL may please intimate the status.

h) Mizoram:

- i. **Kolasib:** The station has been handed over by POWERGRID to Mizoram State Govt. Hence, the data is not reporting at present.
- ii. **SLDC Mizoram may update the stations as per observations, in table, in SCADA system of SLDC. Necessary help will be extended by NERLDC.**

Sl. No.	Station Name	Observation
1.	Saitul	Entire Station not modelled at SLDC.
2.	Khawzawl	Entire Station not modelled at SLDC.
3.	Champai	Entire Station not modelled at SLDC.
4.	Serchhip	Entire Station not modelled at SLDC.
5.	Lunglei	Entire Station not modelled at SLDC.

DoP Mizoram may please intimate the status.

j) Nagaland: SLDC Nagaland may update the stations as per observations, in table, in SCADA system of SLDC. Necessary help will be extended by NERLDC.

Sl. No.	Station Name	Observation
1.	Meluri	EMS database not modelled in SLDC. Only SCADA database is modelled.
2.	Kiphire	EMS database not modelled in SLDC. Only SCADA database is modelled.

SLDC Nagaland may please intimate the status.

B.6 Status of pilot VSAT project:

VSAT pilot project was envisaged using KPTCL hub. The estimated cost of Rs. 5.38 lacs for VSAT terminals and Rs. 1.4 Lacs for Terminal Servers (for converting 101 to 104 protocol), all the constituents in 13th NETeST meeting together agreed on cost sharing basis. However, NERLDC approached M/s Hughes Communication to demonstrate VSAT connectivity for RTU/SAS data transfer between NEHU SLDC and Killing Substation of Meghalaya on no-cost basis. M/s Hughes dispatched two (02) numbers VSAT antenna and Indoor equipment on 23/11/2019. The antenna and indoor equipment was delivered on 03/01/2020. The antenna at SLDC NEHU was erected on 20/01/2020. The VSAT at killing will be commissioned by February 2020. The entire process of pilot project will be completed by February 2020. The same will be operational for a period of one (01) month.

NERLDC and Meghalaya-SLDC to submit a detailed report on performance of VSAT pilot project in Killing station to NERPC for further consideration in using VSAT as a backup communication medium in North Eastern Region.

Members may please discuss.

B.7 Drawal points data availability:

The real-time data availability of the analog points being used in calculation of “State’s Actual Drawl” from grid should be maintained at the highest level as any error or non-availability of such data can mislead the grid operator in SLDCs and NERLDC in real-time decision making and such situations may also lead to huge commercial implications in the form of DSM charges to the utilities. A SCADA Vs SEM report is being sent regularly by NERLDC to all state-utilities.

NERLDC may please intimate the status.

B.8 VSAT For Roing Tezu Namsai:

In the 15th NETeST meeting, DGM, NERTS informed the forum that demo for Tezu was completed. Similar methodology will be adopted for Roing Tezu Namsai-PG stations. Forum suggested for placement of PO to M/s NELCO/Tatanet (or any VSAT service provider) at the earliest.

NERTS informed that the Purchase Order for VSAT equipment along with full scope included will be placed by January, 2020. The Purchase Order for VSAT equipment along with its commissioning at site will be done by January, 2020.

GM, NERLDC mentioned that the data-availability of over 95% was achieved from Tezu station during the VSAT demo period of 27-08-2019 to 30-09-2019.

NERTS may please intimate the status.

B.9 Readiness for supply of CFEs in Badarpur (2nd TS Node)

The Purchase Order for procurement of Terminal Servers along with necessary accessories had been placed on 04th November 2019 to M/s GE T&D India Limited which is expected to be delivered by end of Feb'2020.

GM, NERLDC requested NERTS to provide the communication channel between Misa and Backup NERLDC on priority. And link between Badarpur to Back-up NERLDC after the commissioning of Badarpur Terminal Server.

NERLDC may please intimate the status.

B.10 Data validation status of all PGCIL owned substations:

The database validation (refer **Annexure-3**) of POWERGRID owned sub-stations in NER has been completed from POSOCO end and the list of addresses has been shared with NERTS, POWERGRID.

NERTS has informed the forum that the data-validation activities with POWERGRID have been completed for 19 out of 23 stations and pending issues will be resolved at the earliest.

NERTS / NERLDC may please intimate the status.

B.11 Data validation status of all stations of Assam:

The database validation from POSOCO and Assam end has been completed. The corresponding data validation table can be referred as **Annexure-4**.

Several meetings with Assam-SLDC, AEGCL and APGCL have been done by NERLDC and corresponding MoM have been signed with action-plan for improvement in data-availability of each station of the Assam utilities but no significant improvement has been observed till yet.

APGCL & AEGCL may please intimate the status.

B.12 Data validation status of all stations of Meghalaya:

The database validation from POSOCO and Meghalaya end has been completed. The corresponding data validation table can be referred as **Annexure-5**.

Several meetings with Meghalaya-SLDC, MePTCL have been done by NERLDC and corresponding MoM have been signed with action-plan for improvement in data-availability of each station of the MePTCL but no significant improvement has been observed till yet.

MePTCL may please intimate the status.

B.13 Data validation status of all stations of Nagaland:

A meeting on data validation was conducted between POSOCO and DoP, Nagaland on 05th July 2019. And another meeting on VC was conducted between POSOCO, POWERGRID and DoP, Nagaland was conducted on 08th July 2019. The corresponding MoMs can be referred as **Annexure-6**.

The corrective actions for rectification to be done by DoP, Nagaland corresponding deadline to be conveyed and the status of rectification of data related issues as highlighted in the Validation-List with corresponding deadlines needs to be elaborated.

DoP, Nagaland may please intimate the status.

B.14 Dual channel availability for reliable and redundant communication system in NER:

The Dual-channel availability for reliable and redundant communication system to be provided at Main NERLDC, Shillong as well as Backup NERLDC, Guwahati.

Separate annexures for forced outages in communication links shall be included and reported to the NETeST forum. NERLDC has issued a letter to POWERGRID-NERTS regarding connecting present/temporary Backup NERLDC to wide-band node at Kahilipara through Fiber/ADSS on interim basis.

NERTS is requested to take appropriate action on it.

NERTS and NERLDC may please discuss.

B.15 Utilities executing regional projects to submit monthly progress report to NERPC:

The progress report is not getting shared with NERLDC for informational purposes.

NERLDC is sending a weekly data-telemetry report to all concerned utilities and the same needs to be checked and rectified at the earliest.

State Utilities may elaborate on the action taken in rectifying the respective issues highlighted in the weekly data-telemetry report by NERLDC

Members may please discuss.

B.16 Integration of Dikshi HEP real time data and pending Voice communication:

The real-time data availability from Dikshi station is intermittent due to some technical issues as conveyed by the site. The voice communication has not been made available from Dikshi station yet. In case of Tenga station, the voice communication is not available at NERLDC as well as SLDC itself. A letter issued to M/s Devi Energy in this regard is attached as **Annexure-7**.

DoP, AP may please intimate the status.

B.17 Issue of mismatch in timestamp of SoE of PGCIL owned Substations:

Mismatch of timing between NERLDC SCADA time and field time is observed in substation of PGCIL. PGCIL has solved the issue in 132 kV Aizawl, 132 kV Kumarghat and 132 kV Nirjuli S/s. However, the issues of few stations are still pending and those are list in the table below. As Sequence of Events (SoE) is important for grid disturbance analysis. The mismatch should be rectified at the earliest.

Sl. No.	Station Name	SOE mismatch	Present status
1	Jiribam	30 min	Rectified
2	Mariani	60 min	Rectified
3	Salakati	60 min	60 min
4	Silchar	30 min	Rectified
5	Tezu	05:30 hr	05:30 hrs
6	Ziro	Date and Time	Date and Time
7	Imphal	20 min	Rectified
8	Khliehriat	15 min	Rectified
9	Mokokchung	60min	Rectified

During the 15th NETeST meeting, NERTS stated that SoE related issues in Mariani, Silchar and Imphal has been resolved. The SoE mismatch in Ziro will be resolved by January 2020 after procurement of new GPS device. SOE issues in Salakati will be rectified by December-2019

Issue of mismatch in timestamp of SoE of stations such as Salakati, Tezu and Ziro is still to be rectified.

NERTS may please intimate the status.

B.18 Automatic Generation Control(AGC) in Indian Grid:

Hon'ble Central Electricity Regulatory Commission (CERC) has stipulated the implementation of AGC in Indian Grid.

Stations in NER to have AGC:

BgTPP, AGBPP, Kopili, Loktak, Doyang, Khandong.

In 164th OCCM NERLDC informed that FO communication path is available for all stations except Loktak HEP. However route redundancy/ alternate path is not available for any of the stations. Communication link availability status to be discussed in next NETeST meeting.

DGM, NEEPCO informed that in Dec'19 a Special meeting was held with NLDC wherein it was decided that all NEEPCO stations (except AGBPP) would be excluded from AGC till completion of R&M. The forum noted.

Members may please discuss.

B.19 Allocation of fibre for line differential protection for short lines:

Name of the line	Status of OPGW		Status of relay at both ends	
	Implementing utility	Latest status	Implementing utility	Latest status
132kV RHEP-Pare-2	DoP Ar Pradesh		NEEPCO	Procurement process initiated.

In 164th OCCM, it was decided that for 132kV RHEP-Pare-2 a pair of fiber would be allocated for LDP from 132kV RHEP-Pare-Lekhi. NERTS to execute by February 2020. It is referred to next NETeST meeting.

Members may please discuss.

B.20 Allocation of Fiber from POWERTEL Link for power System purpose:

In 164th OCCM, it was discussed that the power system data are being transferred across the region through ULDC fibre network as a main path. To increase the reliability of real time data transfer, the fibre network of Powertel may also be utilised as an alternate path to transfer Power System data.

After detailed deliberation the matter was referred to the next NETeST meeting.

Members may please discuss.

Any other item:

Date and Venue of next NETeST:

It is proposed to hold the 17th NETeST meeting of NERPC on second week of May 2020. The date & exact venue will be intimated in due course.

Annexure 1					
Average Availability of Constituents for Month of January-2020					
Sl. No.	Name of Consituent	Analog %age	Digital %	Total %	RTU %
1	PGCIL	83.83%	83.62%	83.69%	82.08%
2	NEEPCO	77.90%	83.42%	81.08%	84.97%
3	NTPC	96.49%	96.04%	96.20%	95.72%
4	NHPC	84.98%	81.35%	82.64%	99.98%
5	OTPC	99.87%	99.85%	99.86%	99.88%
6	Arunachal Pradesh	11.63%	19.90%	16.36%	10.35%
7	Assam	43.31%	43.01%	43.13%	43.16%
8	Manipur	39.69%	46.58%	43.74%	41.68%
9	Meghalaya	51.95%	32.03%	40.42%	47.53%
10	Mizoram	16.88%	20.64%	18.55%	19.94%
11	Nagaland	24.58%	44.37%	35.13%	26.00%
12	Tripura	26.27%	10.11%	17.15%	23.54%
	NER	48.85%	50.27%	49.70%	44.17%

ANNEXURE 3
STATUS OF DATA VALIDATION OF NERTS STATIONS AS ON
05/02/20

Sl. No.	Name of RTU	Status of Data validation
1	Aizawl	Completed
2	Badarpur	Completed
3	Balipara	Completed
4	BNCHVDC	Completed
5	Bongaigoan	Completed
6	Dimapur	Completed
7	Haflong	Completed
8	Imphal	Completed
9	Itanagar(Nirjuli)	Completed
10	Jiribam	Completed
11	Khleiriat	Completed
12	Kopili-Ex	To be completed after restoration work
13	Kumarghat	Completed
14	Mariani	Completed
15	Melriat	Completed
16	Misa	Completed
17	Mokokchung	Completed
18	Namsai	To be corrected after implementation of VSAT
19	Roing	To be corrected after implementation of VSAT
20	Salakati	Completed
21	Silchar	Completed
22	Tezu	To be corrected after implementation of VSAT
23	Ziro	Completed

Draft of Minutes of Meeting between NERLDC and Meghalaya SLDC held at NEHU SLDC premises on 27th May 2019

A meeting was held, inline with minutes of 13th NETeST meeting, among representatives from NERLDC, Shillong and Meghalaya SLDC, Nehu and System Protection Division on 27th May 2019 for discussing various issues related to non-availability of real-time data of stations and communications etc. owned by MePTCL. The list of participants is listed in table below.

M.K. Ramesh (General Manager, NERLDC)	F.E.Kharshiing (SE, SLDC)
Akhil Singhal (Chief Manager, NERLDC)	B.Nikhla (EE, SP)
Sakaldeep Chauhan (Engineer, NERLDC)	D.J.Lyngdoh (EE, SM, SLDC)
	B.Narry (AEE,C&C)
	C.W.Chen (AEE, SLDC)

The General Manager (SL, NERLDC) gave opening remarks about proceedings of the meeting and expressed his concerns about low availability of real-time data (32%) related to stations under MePTCL. The GM (SL, NERLDC) also suggested that the issues may be classified into following categories –

- Non-availability of data due to projects getting implemented under PSDF
- Communication Links issues
- Site-level issues related to RTUs, Transducers, CT/PT terminations, etc.
- Operation & Maintenance like loose cabling, earthing issues, etc.
- Single Line Diagram between Field/Site and SLDC SCADA system
- Database validation checking between Meghalaya SLDC and NERLDC

A summary of discussion is listed below.

1.0 Station-wise issues related to non-availability of real-time data to NERLDC

As a first step, station-wise issues were discussed in detail related to non-availability of real-time data at SLDC and subsequently to NERLDC and a target action plan with time-line was prepared, wherever possible. The summary of the above discussion is listed in table below.

Sl. No.	Name Of Stations	Reason for Non-availability of Real Time data	Category of Work to be executed	Target Date for rectification	Remarks
1	Cherapunjee	PLCC issue b/w Mawlai to Nehu	Communication Media	Commissioning dates to be intimated at the earliest (MePTCL to complete on priority to increase availability of data)	Commissioning of Digital PLCC b/w Mawlai to NEHU to be taken up on priority to resolve the issue.
2	EPIP-1	<ul style="list-style-type: none"> • New MFTs are required • Additional Digital Card to be procured for capturing remaining Digital inputs 	O&M	Analog data by 2 nd Week of Jun'19	MFTs computability issues also being faced

Sl. No.	Name Of Stations	Reason for Non-availability of Real Time data	Category of Work to be executed	Target Date for rectification	Remarks
3	EPIP-2	<ul style="list-style-type: none"> New MFTs are required Additional Digital Card to be procured for capturing remaining Digital inputs 	O&M	Analog data by 2 nd Week of Jun'19	--
4	Khleiriat	<ul style="list-style-type: none"> New Cables will be laid for all digital inputs. Additional Digital cards to be procured for Isolators status. 	O&M	3 rd week of Aug'19	Digital Cards are available only for CBs at present.
5	Killing	<ul style="list-style-type: none"> Failure of PLCC link between Killing & EPIP 2 Status of some of the Isolators is intermittent in nature and needs to be analysed by SLDC 	O&M	Till 31 st May 2019	<ul style="list-style-type: none"> Some alarm at Killing end indicating problem at EPIP 2 end. May require manual tuning of PLCC panels ON/OFF of PLCC panels can be tried
6	Leska	NSK 5 modem in PLCC panels seems to have some problem in its card	O&M	4 th Week of Jun'19	<ul style="list-style-type: none"> RTU and media seems to be functional. Speech transfer in working but not data transfer. MePTCL to test modem at Leska. May request PGCIL to divert some additional Modem in spares, if available.
7	Lumshnong	<ul style="list-style-type: none"> Operation and Maintenance issues. Needs to be checked and resolved 	O&M	1 st Week of Jul'19	<ul style="list-style-type: none"> Digital status data of some feeders not reporting Analog data of ICT-1 not reporting
8	Mawlai	<ul style="list-style-type: none"> CBs status to be rectified Additional Digital Card to be procured for Isolators status 	O&M	31 st May 2019	<ul style="list-style-type: none"> Station under modernization and a new bay is also under construction which may take around 1 year. Shifting of panels is being done and new

[Handwritten signatures and initials]

Sl. No.	Name Of Stations	Reason for Non-availability of Real Time data	Category of Work to be executed	Target Date for rectification	Remarks
					panels will be placed subsequently. • Date of modification will be intimated to SLDC/NERLDC
9	Mawngap	Additional Digital Card to be procured for capturing remaining Digital inputs	O&M	To be decided	--
10	Mendipathar	<ul style="list-style-type: none"> • ICT 2 whole bay not reporting • Additional card for Digital Data to be procured 	O&M	Tentatively In Jul'19	Visit to Garo Hills to be decided tentatively In Jul'19
11	Mustem	<ul style="list-style-type: none"> • ICT 2 whole bay not reporting • Needs to be checked and resolved 	O&M	3 rd week of Jun'19	<ul style="list-style-type: none"> • Bus 2 data and ICT 2 data not available • All digital status data not available
12	Nangalbibra	<ul style="list-style-type: none"> • 132 kV Nongstoin Digital data is under PSDF • ICT 2 is removed from service 	O&M	Tentatively In Jul'19	Visit to Garo Hills to be decided tentatively In Jul'19
13	Nehu	Additional Digital Card to be procured for capturing remaining Digital inputs	O&M	To be decided	All isolators data not available
14	NEIGHRIMS	<ul style="list-style-type: none"> • ICT 2 data is not reporting as it failed last week • Additional Digital Card to be procured for capturing remaining Digital inputs under PSDF 	O&M	To be decided	--
15	Nongston	Earthing issues at Nangalbibra	O&M	Tentatively In Jul'19	<ul style="list-style-type: none"> • Entire station's data not reporting • MePTCL to take up the issue with EE (T&T, Tura)
16	New Umtru	No issues	--	--	--
17	Rongkhon	<ul style="list-style-type: none"> • C&R panels are erected; only terminations required • Additional Cards for isolators status needs to be procured 	O&M	Tentatively In Jul'19	Visit to Garo Hills to be decided

Sl. No.	Name Of Stations	Reason for Non-availability of Real Time data	Category of Work to be executed	Target Date for rectification	Remarks
18	Umiam 1	To be analysed by SLDC and reported/resolved subsequently (visit planned till 31 st May 2019)	--	31 st May 2019	<ul style="list-style-type: none"> Visit till 31st May'19 for planning further action plan Unit 2 & 3 data are not reporting All digital data are not reporting
19	Umiam 2	Problem with DC supply of RTU (visit planned till 31 st May 2019)	O&M	31 st May 2019	Visit till 31 st May'19 for planning further action plan
20	Umiam 3	<ul style="list-style-type: none"> Additional Digital Card to be procured for capturing remaining Digital inputs To be analysed by MePTCL and reported/resolved subsequently (visit planned till 31st May 2019) 	O&M	31 st May 2019	<ul style="list-style-type: none"> Visit till 31st May'19 for planning further action plan Unit 1 under long outage
21	Umiam 4	<ul style="list-style-type: none"> PLCC media Issue To be analysed by MePTCL and reported/resolved subsequently (visit planned till 01st week of Jun'19) 	Communication Media	To be decided	--
22	Umiam	<ul style="list-style-type: none"> To be analysed by MePTCL and reported/resolved subsequently (visit planned till 01st week of Jun'19) 	O&M	To be decided	<ul style="list-style-type: none"> ICTs data is not reporting Chemtrols-make RTU installed.
23	Umtru	Additional Digital Card to be procured for capturing remaining Di inputs	O&M	To be decided	<ul style="list-style-type: none"> All units are put out-of-service No plan for R&M of units Station is acting like a switching station at present

2.0 Schedule Plan for procurement of additional Digital Cards along with other accessories

MePTCL needs to be furnish the schedule-plan for procurement of additional digital cards, cabling, field cabling works, etc. to SLDC/NERLDC for improvement of Isolator status.

3.0 Validation of database and displays





It was jointly agreed by NERLDC and SLDC that the database and displays of NERLDC will be validated with that available with SLDC and the same process will be followed by SLDC w.r.t. that available with sub-station site.



NERLDC mentioned that an executive from NERLDC will be deputed at SLDC from 27-28th May 2019 for the validation of displays and database of stations under jurisdiction of Meghalaya SLDC. The observations after the database and displays validation activities are listed in table below for necessary rectification at SLDC/NERLDC end.

Sl. No.	Name Of Stations	Database Comparison	SLD Comparison (Site and SLDC)	SLD Comparison (SLDC and RLDC)
1	Cherrapunjee	No issues.	No Issues.	To be done after necessary corrections at SLDC end.
2	EPIP-1	Transformer 2 is removed from SLDC database; To be removed from NERLDC database	Extra at site: Grey Stone, Transformer 2, Sai Prakash Extra at SLDC: Killing 2, Pione	To be done after necessary corrections at SLDC end.
3	EPIP-2	Transformer 2 is removed from SLDC database; To be removed NERLDC database	Extra at site: ICT, Capacitor, Trishul Extra at SLDC: New Umtru	To be done after necessary corrections at SLDC end.
4	Khleiriat	Transformer 2 is removed from SLDC database; To be removed NERLDC database	Extra at site: Badarpur, ICT 2, Nehu Extra at SLDC: Mustem, Leska 1, Leska 2	To be done after necessary corrections at SLDC end.
5	Killing	No issues.	Updated site SLD not available	To be done after necessary corrections at SLDC end.
6	Leska	No issues.	No issues.	To be done after necessary corrections at SLDC end.
7	Lumshnong	Amrit Line is under testing; Amrit_ME to be added in NERLDC database after commissioning of station; Load D_HILCM_LUMSH to be replaced with AMRIT line; Load D_JUD_LUMSH to be replaced with D_LUMSH_MPL_load	Extra at site: Hill Cement, Jud Extra at SLDC: Amrit, MPL	To be done after necessary corrections at SLDC end.
8	Mawlai	No issues.	Extra at site: Mawph 2 Extra at SLDC: Cherrapunjee	To be done after necessary corrections at SLDC end.
9	Mawngap	Bus 2 kV is not modelled in SLDC & NERLDC Database; No issues	Extra at site: Mawla 2, Cherrapunjee Extra at SLDC: Future	To be done after necessary corrections at SLDC end.
10	Mendipathar	No issues.	Extra at site: Nangalbibra 2 Extra at SLDC: Agia	To be done after necessary corrections at SLDC end.

Sl. No.	Name Of Stations	Database Comparison	SLD Comparison (Site and SLDC)	SLD Comparison (SLDC and RLDC)
11	Mustem	No issues.	No issues.	<i>To be done after necessary corrections at SLDC end.</i>
12	Nangalbibra	Transformer 2 is removed from SLDC database; To be removed NERLDC database	Updated site SLD not available	<i>To be done after necessary corrections at SLDC end.</i>
13	Nehu	Bus 2 kV is not modelled in SLDC & NERLDC Database; No issues	Extra at site: Khleiriat Extra at SLDC: Mustem	<i>To be done after necessary corrections at SLDC end.</i>
14	NEIGHRIMS	No issues.	No issues.	<i>To be done after necessary corrections at SLDC end.</i>
15	Nongston	No issues.	No issues.	<i>To be done after necessary corrections at SLDC end.</i>
16	New Umtru	No issues.	No issues.	<i>To be done after necessary corrections at SLDC end.</i>
17	Rongkhon	Ampati Substation to be modelled in NERLDC SCADA database; D_AMPAT_RONGK 1 & 2 to be added in NERLDC SCADA database; Transformer 5 to be removed from NERLDC SCADA database	Updated site SLD not available	<i>To be done after necessary corrections at SLDC end.</i>
18	Umiam 1	No issues.	Site SLD not available	<i>To be done after necessary corrections at SLDC end.</i>
19	Umiam 2	No issues.	Site SLD not available	<i>To be done after necessary corrections at SLDC end.</i>
20	Umiam 3	Bus 2 kV is not modelled in SLDC & NERLDC Database; No issues	Site SLD not available	<i>To be done after necessary corrections at SLDC end.</i>
21	Umiam 4	Bus 2 kV is not modelled in SLDC & NERLDC Database; No issues	Site SLD not available	<i>To be done after necessary corrections at SLDC end.</i>
22	Umiam	Bus 2 kV is not modelled in SLDC & NERLDC Database; No issues	No issues.	<i>To be done after necessary corrections at SLDC end.</i>
23	Umtru	Bus 2 kV is not modelled in SLDC & NERLDC Database; Unit 1 to 4 and DA_T1, DA_T2 to be	Extra at site: Unit 1 to 4 Extra at SLDC: New Umtru	<i>To be done after necessary corrections at SLDC end.</i>

Sl. No.	Name Of Stations	Database Comparison	SLD Comparison (Site and SLDC)	SLD Comparison (SLDC and RLDC)
		removed from NERLDC database		

4.0 Projects under implementation by Power System Development Fund (PSDF)

MePTCL's System Protection Division stated that various projects are under progress and being funded by PSDF such as establishment of communication links and upgradation of sub-stations by implementing SAS systems. NERLDC mentioned that the plans and target dates for completion need to be listed and shared to NERLDC in view of availability of telemetry.

5.0 Weekly/Monthly report of telemetry status

NERLDC stated that a weekly/monthly report of telemetry status is being shared by NERLDC to Meghalaya SLDC and System Protection Division of MePTCL on regular basis. Meghalaya SLDC mentioned that it is in receipt of all such reports and will coordinate accordingly.

6.0 Joint collaboration for resolution of issues

The meeting ended with a resolution to provide all support from both NERLDC and Meghalaya SLDC side for quick rectification of all the listed issues and extending support for all related matters.

Minutes of Meeting for SLDC Nagaland visit on 05th July 2019

The meeting was attended by following executives:

NERLDC, POSOCO	PGCIL	SLDC Nagaland, DoP Nagaland
Shri M K Ramesh, GM, NERLDC	Shri P. Borah, DGM, 220 kV Dimapur(PG)	Er. Tiameren, EE(Communication), DoP Nagaland
Shri Sakal Deep, Engineer, NERLDC		Er. Rokobeito, SDO
		Er. D Chakraborty, SDO(SLDC)
		Er. Tiakaba Yimchunger, JE(SLDC)

The meeting started with visit of Control Room of SLDC Nagaland.

- GM, NERLDC addressed the issue of non-availability of LED display for frequency, time and block number.
- The same issue is long pending from M/s GE T&D. This will be rectified by M/s GE T&D on urgent basis. M/s GE T&D informed it will be investigated and if the issue is on software part the same will be rectified by 12th July'19. And if the issue is on hardware part the same will be rectified by 26th July'19.
- The server room was checked and the Fibre Optic connection of PowerTel was found along with Tejas 1400 Mux installed at server room in SLDC Nagaland building.
- From Tejas 1400 Mux (Mux installed at server room in SLDC Nagaland building), ICCP and VC link for SLDC Nagaland are terminating.
- The orange exchange of VoIP phones are also installed at server room of SLDC Nagaland building.
- A new mux of Fibcom, under MW Vacation project, is also erected at server room of SLDC Nagaland building. This will be commissioned after completion of link Dimapur (PG) to Dimapur (NA), the same will be completed on or before 09th July'19 as informed by PGCIL representative.
- Meeting proceeded with discussion on availability of data and communication channel for each Nagaland owned stations. The detailed discussions are attached as Annexure A and Annexure A.1.
- It is informed that SIM for 11 stations out of 12 stations are provided to M/s PMAS for integration of data over GPRS.
- It is further informed, DoP Nagaland are executing the project of PLCC which will connect following nine (9) stations. Erections of panels are completed. Only testing and commission are left, which will be completed in coming three (3) months: Kohima, Dimapur (NA), Sanis, Meluri, LHEP, Mokokchung, and Dimapur(PG): as bypass station.
- NERLDC provided suggestion of rectifying the issue of non-availability in stages. As following:

Shayhan
05/07/19
(Sakal Deep)

Rokobeito
(Rokobeito DEPT)

1

D. Chakraborty

P. TIAKABA YIMCHUNGER

GM (SL)
NERLDC

Minutes of Meeting for SLDC Nagaland visit on 05th July 2019

- Checking the availability of RTU at site.
- Checking the availability of link from site to SLDC.
- Data validation of RTU after reporting of data.
- GM, NERLDC along with DoP Nagaland officials visited 132 kV Nagarajan and 66 kV Power house to address the issue of non-availability of data.
- During the visit of 132 kV Nagarajan and 66 kV Power house S/s following were the observations:
 - In 132 kV Nagarajan S/s, it is observed that GPRS MODEM is kept inside the RTU room, where signal strength is weak and causing intermittency of data communication. It is suggested to shift the GPRS MODEM outside the room for better signal strength.
 - In 66 kV Power house S/s, it is observed that 110 V DC was not extended to RTU, the same was available at the time of commissioning and later disconnected. It was suggested to extend the 110 V DC to RTU and connect GPRS MODEM for data transmission. The signal strength in this station is healthy, as it is in the vicinity of city. This station is vital for observing the load of Dimapur City like: Civil Hospital, Airport etc. M/s DeeJay has agreed to complete the work by 12th July'19.
- 132 kV Ganesh Nagar, RTU was commissioned. The integration of same will be done by 12th July'19 with GPRS and SLDC Nagaland. This station is 35 KM from SLDC Nagaland.
- 132 kV Sanis S/s, which was not modelled earlier the visit, is modelled at SLDC database. It will be integrated with installation of RTU at site.
- Target dates for each station, as per Annexure A, will be provided in VC on 08th July'19.

Shankar
05/07/19

Telebrik

GM(SL),
NERLDC

Annexure A

SL No.	NAME OF STATION	Voltage Level (K V)	Total Analog	Total Digital	Total Points	Analog Report ng	Digital Report ng	Total Report ng	%age analog	%age Digital	%age Total	STATUS (as on 04/07/2019)	Current Reporting Media	Fibre Optic Project (Under Implementation)	Remarks	Tentative Target
1	DIMAPUR NAGARJAI	132	35	39	74	15	38	53	42.86	97.44	71.62	Partially Reporting	GPRS	MW Vaccination Project	Data are reporting. Refer annexure A.1	
2	GANESH NAGAR	66	7	6	13	0	0	0	0.00	0.00	0.00	Not Reporting	GPRS		Modem is installed. SIM connection to be checked at site. Data will report after SIM connection rectification.	
3	KIPHIRE	132	20	27	47	0	0	0	0.00	0.00	0.00	Not Reporting	GPRS		Data are reporting. Refer annexure A.1	
4	KOHIMA	132	18	27	45	9	13	22	50.00	48.15	48.89	Partially Reporting	Boardband	FO expansion	Data are reporting. Refer annexure A.1	
5	LHEP	66	11	14	25	0	0	0	0.00	0.00	0.00	Not Reporting	Boardband		GPRS issue to be rectified	
6	MELURI	132	9	3	12	0	0	0	0.00	0.00	0.00	Not Reporting	No media		NO RTU at station	
7	MOKOKCHUNG	132	55	58	113	0	0	0	0.00	0.00	0.00	Partially Reporting	Boardband	FO expansion	Data are reporting. Refer annexure A.1	
8	MON	66	7	8	15	0	0	0	0.00	0.00	0.00	Not Reporting	GPRS		GPRS issue to be rectified	
9	NAGIMORA	66	8	3	11	0	0	0	0.00	0.00	0.00	Not Reporting	No media		NO RTU at station	
10	POWER HOUSE	66	12	12	24	0	0	0	0.00	0.00	0.00	Not Reporting	GPRS		DC supply of 48 V to be extended till RTU	
11	SANIS	132	11	15	26	0	0	0	0.00	0.00	0.00	Not Reporting	No media		NO RTU at station	
12	TIZIT	66	8	3	11	0	0	0	0.00	0.00	0.00	Not Reporting	No media		NO RTU at station	
13	TUENSANG	66	9	9	18	0	0	0	0.00	0.00	0.00	Not Reporting	GPRS	OPGW proposed existing lines	GPRS issue to be rectified	
14	TULI	66	17	22	39	0	0	0	0.00	0.00	0.00	Not Reporting	GPRS	FO expansion	GPRS issue to be rectified	
15	WOKHA	66	9	12	21	0	0	0	0.00	0.00	0.00	Not Reporting	GPRS		GPRS issue to be rectified	
16	ZUHENEBO	66	7	8	15	0	0	0	0.00	0.00	0.00	Not Reporting	GPRS	OPGW proposed NEW lines	GPRS issue to be rectified	

Highlighted indicate RTU is present in S/s

Shashan
05/07/19

Atchannath

Do

Shashan

Shashan
amcs
NERDC

To Be
decide at
VC on
08/07/19

Annexure A.1

Dimapur (NA):

- HV side ICT 132/66 kV ICT 1: Direction of flow was opposite, corrected by negating in FE of SLDC.
- HV side ICT 132/33 kV ICT 2: Value from site is coming zero. So flow is coming zero. All isolators and CBs are needed to be modelled in FE database at SLDC
- Isolators of 132 kV Dimapur (PG) line 1 are showing opposite status. Issue to be resolved in RTU at site.
- Isolators of 132 kV Dimapur(PG) Line 2 are showing opposite status. CB is showing in-between status. Issue to be resolved in RTU at site.
- Isolators and CB of 132 kV Bus coupler bay are showing wrong status. Issue to be resolved in RTU at site.
- LV side ICT 132/66 kV ICT 1: Isolators and CB are showing wrong status. Issue to be resolved in RTU at site.
- Isolators and CB of 66 kV Bus coupler bay are showing wrong status. Issue to be resolved in RTU at site.
- 66 kV Bokajan (AS) bay: Isolators and CBs are showing wrong value. Issue to be resolved in RTU at site.
- 66/33 kV ICT 2: Analog value are not reporting. Issue to be resolved in RTU at site.
- 66/33 kV ICT 3: Analog value are not reporting. Issue to be resolved in RTU at site.
- 66 kV Ganesh Nagar: Isolators and CBs are showing wrong value. Issue to be resolved in RTU at site.
- 66 kV Chummukedima: Isolators and CBs are showing wrong value. Issue to be resolved in RTU at site.

Kohima (NA):

- 132 kV Dimapur(PG) line: All analog and digital data are correct.
- 132 kV Wokha line: All analog value are correct. Isolators and CBs are reporting wrong/opposite values. Issue to be resolved in RTU at site.
- 132 kV Meluri line: All analog value are correct. Isolators and CBs are reporting wrong/opposite values. Issue to be resolved in RTU at site.
- 132 kV Karong Line: All analog value are correct. Isolators and CBs are reporting wrong/opposite values. Issue to be resolved in RTU at site.
- 132/33 kV ICT 1: All analog value are correct. Isolators and CBs are reporting wrong/opposite values. Issue to be resolved in RTU at site.
- 132/33 kV ICT 2: All analog value are correct. Isolators and CBs are reporting wrong/opposite values. Issue to be resolved in RTU at site.

Mokokchung (NA):

- Reporting of data is not stable
- 132 kV Bus 1: Data are not reporting. Data are not modelled in FE database of SLDC. After modelling in FE database of SLDC. Addressing to be done in RTU at site.

Ahauhan
05/07/19

[Signature]

[Signature]

[Signature]

[Signature]
GM(SL),
NERLDC

- 132 kV Bus 2: Data are not reporting. Data are not modelled in FE database of SLDC. After modelling in FE database of SLDC. Addressing to be done in RTU at site.
- 132 kV Doyang Line: All analog and digital data are correct.
- 132 kV Mokokchung Line 1 & 2: All analog and digital data are correct.
- 132 kV Maraini(AS) line: All analog and digital data are correct.
- 132/66 kV ICT 1:
 - HV Side: Digital data are reporting. Analog data are not correct, issue to be resolved in RTU at site.
 - LV Side: Digital data are reporting. Analog data are not correct, issue to be resolved in RTU at site.
- 132/66 kV ICT 2:
 - HV Side: Digital data are reporting. Analog data are not correct, issue to be resolved in RTU at site.
 - LV Side: Digital data are reporting. Analog data are not correct, issue to be resolved in RTU at site.
- 66 kV Bus 1: Data are not reporting. Data are not modelled in FE database of SLDC. After modelling in FE database of SLDC. Addressing to be done in RTU at site.
- 66 kV Bus 2: Data are not reporting. Data are not modelled in FE database of SLDC. After modelling in FE database of SLDC. Addressing to be done in RTU at site.
- 66/33 kV ICT 1: All analog and digital data are correct.
- 66/33 kV ICT 2: All analog and digital data are correct.
- 66 kV Tuli Line: All analog and digital data are correct.
- 66 kV Bus coupler: All digital data are correct.
- 66 kV Zuheneboto Line: All digital data are correct. All analog data(MW, Mvar) are not correct, to be rectified at RTU.

Kiphire (NA):

- 132 kV Bus 1: Data are not reporting. Data are not modelled in FE database of SLDC. After modelling in FE database of SLDC. Addressing to be done in RTU at site.
- 132 kV Meluri Line: All analog data are correct. CB is reporting correct value. Isolators are reporting opposite value. Issue to be resolved in RTU at site.
- 132/33 kV ICT 1:
 - HV side: Analog value are not reporting. CB is reporting correct value. Isolators are reporting opposite value. Issue to be resolved in RTU at site.
 - LV side: CB is reporting correct value. Isolators are reporting opposite value. Issue to be resolved in RTU at site.
- 66 kV Bus 1: Data are not reporting. Data are not modelled in FE database of SLDC. After modelling in FE database of SLDC. Addressing to be done in RTU at site.
- 66/33 ICT 1: All analog value are reporting. Isolators and CBs are showing wrong value. Issue to be resolved in RTU at site.
- 66 kV LHEP Line 1 & 2: Analog data are wrong. CBs are correct. Isolators are reporting opposite data. Issue to be resolved in RTU at site.

Ahauhan
05/07/19

[Signature]

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[Signature]

[Signature]
GM(SL)
NERLDC

- 66 kV Tuenseng Line: Analog data are wrong. CBs are correct. Isolators are reporting opposite data. Issue to be resolved in RTU at site.

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Minutes of Meeting between POSOCO-NERLDC, POWERGRID-NERTS and Nagaland-DoP held through Video-Conferencing on 08th July 2019

A meeting was held through Video conferencing in line with visit of POSOCO-NERLDC team to Nagaland-SLDC on 05th July 2019 and signed Minutes of Meeting between POSOCO-NERLDC and Nagaland-SLDC thereof, among representatives from POSOCO-NERLDC, POWERGRID-NERTS and Nagaland-DoP on 08th July 2019 for discussing various issues related to non-availability of real-time data of stations and communications etc. under jurisdiction of Nagaland. The list of participants is listed in *table* below.

Shri V. Suresh (Chief GM, I/c, NERLDC)	Addl. Chief Engineer, DoP, Nagaland
Shri M.K. Ramesh (General Manager, NERLDC)	Shri Tiameren (EE, Communication), DoP, Nagaland
Shri Akhil Singhal (Chief Manager, NERLDC)	Shri Rokobeito, SDO
Shri Tapobrata Paul (Deputy Manager, NERLDC)	Shri D. Chakraborty, SDO (SLDC)
Shri Sakaldeep Chauhan (Engineer, NERLDC)	Shri Tiakaba Yimchunger (JE, SLDC)
Shri U. Katakai (Sr. GM, NERTS, POWERGRID)	
Shri Supriya Paul (DGM, NERTS, POWERGRID)	
Shri Rohitesh Kumar (Dy. Mgr., NERTS, POWERGRID)	

The Chief General Manager (NERLDC) and General Manager (System Logistics, NERLDC) gave opening remarks about proceedings of the meeting and expressed their concerns about low availability of real-time data related to stations under Nagaland SLDC. The AMC personnel deputed by M/s GE T&D India Limited (erstwhile M/s Alstom T&D India Limited) at NERLDC, Shillong was also invited to explain certain issues related to activities corresponding to M/s GE T&D India Limited. The summary of discussion on station-wise telemetry-related issues is listed below.

1.0 Station-wise issues related to non-availability of real-time data to NERLDC

As a first step, station-wise issues were discussed in detail related to non-availability of real-time data at SLDC and subsequently to NERLDC and a target action plan with time-line were prepared, wherever possible. The summary of the above discussion is mentioned below.

a) Dimapur (Nagarjan):


- Nagaland mentioned that the supporting poles from its side have been erected for All Di-electric Self Supporting (ADSS) FO Cables have been erected by Nagaland-DoP and the Terminal Equipment has also been erected in the Substation as well as Nagaland-SLDC building by POWERGRID-NERTS. The SCADA/EMS database validation and modelling work of Dimapur (Nagarjan) S/s at Nagaland-SLDC level will be done at the earliest with help from support personnel of M/s GE T&D India Limited.
- POWERGRID-NERTS mentioned that the stringing of FO between Nagarjan substation to Nagaland-SLDC will be done during visit of TCIL on 11-07-2019 and corresponding works will be completed by 19-07-2019. It also mentioned that OPGW link between Dimapur (Nagarjan) to Dimapur (PG) will be completed by 31st July 2019, under NER MW vacation project.
- POWERGRID-NERTS and Nagaland conveyed that "Completion" of works includes all activities related to equipment, panels, testing, power supply, earthing, data-checking, voice-checking, etc.

Present status and Target Dates for the Dimapur (Nagarjan) station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Dimapur (Nagarjan)	Partially Reporting	Broadband	19 th July'19 for FO b/w SLDC and sub-station	--


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b) Ganesh Nagar:

- General Packet Radio Service (GPRS) modem of Ganesh Nagar is not yet commissioned, as SIM is still not installed in the respective Modem at site. The Nagaland-DoP informed that SIM is available with the support personnel of M/s DeeJay Private Ltd. deputed at Nagaland-SLDC. A time-line till 14-07-2019 has been committed by M/s DeeJay Private Ltd. personnel for integration of real-time data of Ganesh Nagar RTU with GPRS Modem. Further, the integration of RTU data with the Nagaland-SLDC will also be done till 14-07-2019 itself by joint efforts of SLDC and GE.
- The POWERGRID-NERTS and POSOCO-NERLDC requested Nagaland-DoP to ensure broadband connection in the substation for internet Modem to act as a permanent connection which will increase the stability of the data.
- Nagaland-DoP informed that a Detailed Project Report (DPR) for connecting stations on OPGW (in future) including Ganesh Nagar is under preparation and the project is being envisaged to be funded by Power System Development Fund (PSDF). However, the matter is under internal planning stage by Nagaland-DoP and has not been put up to the concerned forum of NERPC till yet.

Present status and Target Dates for the Ganesh Nagar station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Ganesh Nagar	Not Reporting	GPRS	--	14 th July 2019 for GPRS

c) Kiphire:

- Nagaland-DoP informed that Kiphire substation will be connected over PLCC communication network and the corresponding project for PLCC network is under execution. The PLCC panels are erected at the substation and only the testing and commissioning of PLCC network is pending which will be completed within upcoming three (03) months' time-frame, i.e. till September'19. This project is getting funded by PSDF. It was also informed by Nagaland-DoP that PLCC path for Kiphire will be from Kiphire → Meluri → Kohima with "Kohima station" being the nearest wide-band (FO) location.
- POSOCO-NERLDC raised the concern of packet-loss as the PLCC path consists of two (02) hops i.e. Kiphire→Meluri and Meluri→Kohima. Nagaland-DoP also clarified that necessary consideration of bandwidth is being taken for resolution of packet-loss related issues like twin-channel, Digital PLCC, etc. with supplier ABB.
- Nagaland-DoP stated that real-time data of Kiphire substation is currently reporting over GPRS and intermittency is being faced due to poor network strength inside the control room of substation. The POSOCO-NERLDC requested to place GPRS MODEM in an open area, where network strength will be strong enough to transmit the data.

Present status and Target Dates for the Kiphire station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Kiphire	Not Reporting	GPRS	--	3 months for testing and commissioning of PLCC network, September'19

d) Kohima:

- POWERGRID-NERTS informed that FO link of Kohima-Dimapur (PG) will be completed by 31st July 2019 and Kohima will be the wide-band (FO) location after the completion of afore-mentioned communication link. The Kohima substation will serve as the nearest wide-band link for accumulating data from stations, under PLCC network such as LHEP, Meluri and Kiphire. The no. of stations getting integrated with Kohima

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for data-transfer needs to be accompanied by equal no. of MODEMs; MODEMs will be under scope of Nagaland at Kohima s/s. The configuration will require presence of PLCC engineer. The entire process of integration of stations reporting over PLCC network with FO communication equipment at Kohima will be scope of DoP Nagaland. The channel routing diagram of PLCC to be provided by SLDC to POWERGRID. Another VC may be planned with presence of ABB personnel also, if feasible, as per its visit/availability in near future for further discussion and planning works apart from above mentioned works.

- POSOCO-NERLDC mentioned that the integration of Voice and RTU data with FO links is under scope of Nagaland-DoP for which all technical help, if required, will be provided to integrate the voice and RTU data with Nagaland-SLDC but the procurement of telephone hand-set for integration of voice needs to be done by Nagaland-DoP.

Present status and Target Dates for the Kohima station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Kohima	Partially Reporting	Broadband	By 31 st July'19	--

e) LHEP:

- Nagaland-DoP mentioned that the PLCC will be in place in upcoming three (03) months i.e. till Sep'19 which is getting funded by PSDF. The broadband through VSAT is currently available in the substation but the permanent communication arrangement will be through PLCC.
- A RTU related problem is also being reported for non-availability of station's telemetry and the matter has been conveyed by Nagaland-DoP to M/s GE T&D India Limited and the same is under investigation by the vendor. The mismatch in database addresses is also found and the validation of SCADA/RTU databases and corresponding corrections to be completed by M/s GE T&D India Limited till Jul'19 end. Mr. Harinder Saha from M/s GE T&D India Limited (or some other competent personnel) will visit Nagaland in 3rd week of Jul'19 for its completion.
- Nagaland-SLDC informed that M/s GE will depute Mr. Harinder Saha (or any other competent engineer) to visit SLDC in 03rd week of Jul'19 itself for required rectification works.

Present status and Target Dates for the LHEP station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
LHEP	Not Reporting	Broadband	--	End of Jul'19 (for testing and commissioning)

f) Meluri:

- Nagaland-DoP mentioned that no RTU is installed in the substation yet and the same needs to be procured at the earliest at its own cost with some technical help from POWERGRID-NERTS, if required.

Present status and Target Dates for the Meluri station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Meluri	Not Reporting	No media	--	--

g) Mokochung:

- POWERGRID-NERTS confirmed that FO has been laid and SDH/PDH has also been supplied with Fibcom and Tejas being the parties executing the related works. An amplifier will be delivered (got delayed due

to FAT activities) to site till 20-07-2019 with a completion target of 31-07-2019. The Nagaland-SLDC agreed to provide necessary support by appointing an SDO specifically for it.

- Nagaland-SLDC stated that other detailed issues regarding telemetry have already been shared by POSOCO-NERLDC with it and will be resolved by coordination among Nagaland-SLDC and M/s GE T&D India Limited. It was also discussed that M/s GE personnel i.e. Mr. Harinder Saha (or any other competent personnel) who will be visiting SLDC in 3rd week of Jul'19 will carry out the required rectification works.
- POWERGRID-NERTS specified that –
 - **In case of FO expansion projects:** For voice-communication in s/s, only a hand-set needs to be procured by Nagaland. Rest all ports will be provided by POWERGRID.
 - **In case of PLCC stations:** Entire voice-communication related works to be done by Nagaland-DoP itself.
- The tentative dates for rectification of RTU database and associated site activities to be given after consultation between Nagaland-SLDC and M/s GE T&D India Limited. The Nagaland-SLDC and other Nagaland-DoP representatives stated that it will try its best to adhere to the deadlines in sync with activities of POWERGRID.

Present status and Target Dates for the Mokokchung station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Mokokchung	Partially Reporting	Broadband	By 31 st July 2019	--

h) Mon:

- SLDC reported that there is some problem with the network-provider signal strength. The support personnel of M/s DeeJay Private Limited personnel has 8-SIMs in possession. Vendors such as Vodafone and Airtel were recommended by M/s DeeJay but signals are not working satisfactorily and hence it needs to be re-investigated that which vendors will be better in terms of signal strength. A LoA for broadband connection has been awarded to a MSME which will take some time in completion. A joint visit of Nagaland-DoP and POWERGRID-NERTS will be done to deal with network-strength related problems.
- Nagaland-DoP informed that a Detailed Project Report (DPR) for connecting stations on OPGW (in future) including Mon is under preparation and the project is being envisaged to be funded by Power System Development Fund (PSDF). However, the matter is under internal planning stage by Nagaland-DoP and has not been put up to the concerned forum of NERPC till yet.

Present status and Target Dates for the Mon station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Mon	Not Reporting	GPRS	--	--

i) Nagnimora:

- Nagaland-DoP mentioned that no RTU is installed in the substation yet and the same needs to be procured at the earliest at its own cost with some technical help from POWERGRID-NERTS, if required.
- The modelling in SCADA database has been done by Nagaland-SLDC but corresponding RTUTOP to be made in RTU database. The database modelling works will be completed in coordination with M/s GE T&D India Limited personnel at the earliest.
- Nagaland-DoP informed that a Detailed Project Report (DPR) for connecting stations on OPGW (in future) including Nagnimora is under preparation and the project is being envisaged to be funded by Power

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System Development Fund (PSDF). However, the matter is under internal planning stage by Nagaland-DoP and has not been put up to the concerned forum of NERPC till yet.

Present status and Target Dates for the Nagimora station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Nagimora	Not Reporting	No media	--	--

j) Power House:

- Nagaland-DoP mentioned that no power supply (110 V) is available to the RTU and needs to be rectified.
- POSOCO-NERLDC stated that GPRS needs to be connected as signal strength is good in the substation and also the Nagaland-DoP to provide broadband connection for internet Modem to act as a permanent connection which will increase the stability of the data. It was also brought to the notice of Nagaland-DoP that the RTU panel keys were found to be missing in station during visit of NERLDC team in 01st week of Jul'19. Nagaland-DoP stated that it will ensure that at least one (01) set of keys are available with substation-staff as well as SLDC-staff.

Present status and Target Dates for the Power House station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Power House	Not Reporting	GPRS	--	14 th July 2019 for GPRS

k) Sanis:

- Nagaland-DoP mentioned that no RTU is installed in the substation yet and the same needs to be procured at the earliest at its own cost with some technical help from POWERGRID-NERTS, if required. Shifting of RTU from Wokha to Sanis is under consideration by Nagaland as Sanis is becoming an important station but not yet finalized. POWERGRID-NERTS stated that it has given an additional order for RTU to M/s GE T&D India Limited and the corresponding FAT will be completed by Jul'19 with delivery of hardware in Aug'19. Hence, the Sanis substation will receive its RTU by Aug'19.
- M/s GE T&D mentioned that sufficient cards are available, but cables for integrating CT/PT connection are in shortage which will be supplied by M/s GE along with the RTU in Aug'19 itself.
- It was also deliberated that Nagaland-DoP shall take approval of addl. RTUs required and procure it through single-tender from M/s GE T&D India Limited itself (being proprietary in nature) by taking technical help from POWERGRID, if req. The LoA/PO shall be issued by Nagaland-DoP at the earliest. A tentative cost of 17 lacs (excl. installation, etc.) per RTU was conveyed by M/s GE representative. The Nagaland-DoP agreed for it.
- Permanent communication is planned through PLCC to Doyang and also the FO expansion link from Sania-Wokha.

Present status and Target Dates for the Sanis station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Sanis	Not Reporting	No media	--	End of Aug'19

l) Tizit:

- Nagaland-DoP mentioned that no RTU is installed in the substation yet and the same needs to be procured at the earliest at its own cost with some technical help from POWERGRID-NERTS, if required.
- The modelling in SCADA database has been done by Nagaland-SLDC but corresponding RTUTOP to be made in RTU database. The database modelling works will be completed in coordination with M/s GE T&D India Limited personnel at the earliest.
- Nagaland-DoP informed that a Detailed Project Report (DPR) for connecting stations on OPGW (in future) including Tizit is under preparation and the project is being envisaged to be funded by Power System Development Fund (PSDF). However, the matter is under internal planning stage by Nagaland-DoP and has not been put up to the concerned forum of NERPC till yet.

Present status and Target Dates for the Tizit station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Tizit	Not Reporting	No media	--	--

m) Tuensang:

- A joint visit by POWERGRID-NERTS and Nagaland-DoP will be conducted during the period of 12-19th July 2019; it shall be utilized for re-survey for GPRS signal strength and finalizing the target date for completion of rectification works.
- POWERGRID-NERTS stated that upgradation of MODEM is not possible for incorporating 4G support and hence getting Broadband connection will be beneficial.

Present status and Target Dates for the Tuensang station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Tuensang	Not Reporting	GPRS	--	12 th -19 th July 2019

n) Tuli:

- A joint visit by POWERGRID-NERTS and Nagaland-DoP will be conducted during the period of 12-19th July 2019; it shall be utilized for re-survey for GPRS signal strength and finalizing the target date for completion of rectification works.
- Nagaland-DoP informed that a Detailed Project Report (DPR) for connecting stations on OPGW (in future) including Tuli is under preparation and the project is being envisaged to be funded by Power System Development Fund (PSDF). However, the matter is under internal planning stage by Nagaland-DoP and has not been put up to the concerned forum of NERPC till yet.

Present status and Target Dates for the Tuli station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Tuli	Not Reporting	GPRS	--	12 th -19 th July 2019

o) Wokha:

- A joint visit by POWERGRID-NERTS and Nagaland-DoP will be conducted during the period of 12-19th July 2019; it shall be utilized for re-survey for GPRS signal strength and finalizing the target date for completion of rectification works.

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- POWERGRID-NERTS informed that M/s TCIL has not started OPGW related work and POWERGRID-NERTS raised the concern of LILO of Wokha-Kohima line due to which plan for FO expansion works will change. POWERGRID-NERTS requested Nagaland-DoP to provide necessary details of LILO work.

Present status and Target Dates for the Wokha station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Wokha	Not Reporting	GPRS	--	--

p) Zuheneboto:

- A joint visit by POWERGRID-NERTS and Nagaland-DoP will be conducted during the period of 12-19th July 2019; it shall be utilized for re-survey for GPRS signal strength and finalizing the target date for completion of rectification works.
- NERLDC insisted for permanent communication link to SLDC data transfer from this RTU.

Present status and Target Dates for the Zuheneboto station

Name of Station	Telemetry Status (as on 04-07-2019)	Current Reporting Media	Target date by NERTS	Target date by Nagaland
Zuheneboto	Not Reporting	GPRS	--	12 th -19 th July 2019

2.0 Completion of Power Line Carrier Communication (PLCC) under PSDF projects

Nagaland-DoP mentioned that there are several stations (such as Kiphire, Kohima, LHEP, Meluri, Mokokchung, Doyang, Sanis, etc.) in Nagaland in which the PLCC is under implementation and getting funded by PSDF. The project status of all such works should be conveyed by Nagaland. Nagaland stated that all such projects are likely to be completed and will be in place in next three (03) months i.e. till Sep'19.

3.0 Projects under proposal by Nagaland to be put up for funding through Power System Development Fund (PSDF)

Nagaland-SLDC stated that it is preparing a proposal for Fiber-Optic expansion in communication related to all 66kV stations which may be funded through Power system Development Fund (PSDF). The Detailed Project Report (DPR) is under preparation and corresponding proposal may get prepared and submitted for approval subsequently. The POSOCO-NERLDC and POWERGRID-NERTS requested that such plan may be put up as an agenda for discussion in 14th NETeST meeting to be held on 11th July 2019 for attention of NERPC and other related utilities.

The OPGW (future) is under DPR preparation stage for facilitating wide-band communication network for stations such as Ganesh Nagar, Mon, Nagnimora, Tizit and Tuli.

4.0 Procurement of Remote Terminal Units (RTUs) for certain sub-stations

Nagaland-DoP told that it has some stations in which RTU has not been installed yet and the corresponding funding can be sought from PSDF by initiating a proposal. POSOCO-NERLDC stated that SLDC should procure RTUs at its own cost for all such stations such as Meluri, Sanis, Nagnimora, Tizit and NOT to wait for any financial support from PSDF which may take 2-3 years from initiation→approval→ implementation. POWERGRID-NERTS agreed to provide the technical support/details of RTUs, if required by Nagaland. The procurement of RTUs will be done by Nagaland at its own cost at the earliest.

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5.0 Sharing of project related documents by POWERGRID

Nagaland stated that it has not received many project related documents of SCADA/EMS projects. POWERGRID mentioned that all documents were uploaded on Google-Drive and corresponding link for accessing the files was shared with Nagaland. However, POWERGRID will share links of location-wise folder and database files in Google-Drive with Nagaland SLDC. Similarly, the as-built drawings will also be shared by POWERGRID-NERTS with EE (Transmission) of SLDC, Dimapur.

6.0 Maintaining supportive ambient environment for equipment

NERTS, POWERGRID requested that sufficient air-conditioning and cleanliness in the communication room needs to be ensured in the s/s by Nagaland. A dust-free environment is essential for such costly equipment to enhance its life and using it for long years for real-time data acquisition and other related purposes. Nagaland agreed to provide all such required facilities in its sub-stations.

7.0 Issues related to AMC of ongoing SCADA/EMS project

POSOCO-NERLDC requested Nagaland-DoP to maintain sufficient spares for SCADA system at SLDC premises and also requested Nagaland-DoP to take-up the matters strictly with M/s GE T&D regarding deputing competent staff in AMC. The Nagaland-SLDC shall ensure that the AMC personnel deputed at present need to have at least five (05) years of experience as per the contract. POSOCO-NERLDC also insisted to get rectification of system frequency display at Nagaland-SLDC at the earliest.

8.0 Point of Contact from Nagaland-DoP for necessary action and coordination works

Addl. Chief Engineer, Nagaland-DoP nominated Shri Rokobeito, SDO as a Nodal Officer for SCADA and Communication related works at Nagaland SLDC to improve the work progress and coordination with POWERGRID and other utilities.

Addl. Chief Engineer, Nagaland-DoP nominated Shri Tiakaba Yimchunger (JE, SLDC) to be dedicated for database and communication works.

9.0 Joint collaboration for resolution and periodic-monitoring of issues

It was agreed by POWERGRID-NERTS, POSOCO-NERLDC and Nagaland-SLDC that next review meeting will be held in the end of Aug'19 for close monitoring of the progress made in the activities discussed in the meeting. The meeting ended with a resolution to provide all support from POSOCO-NERLDC, POWERGRID-NERTS and Nagaland SLDC side for quick rectification of all the listed issues and extending support for all related matters.

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ANNEXURE 7

	Status as per 15th NETeST					
S. No.	Link name	OPGW Stringing Status	End Equipment Status	RTU to get integrated after Link Completion	Status as per 15th NETeST	Status as per 16th NETeST
I.	Fiber Optic Expansion Projects					
Central Sector						
1	132kV Melriat(PG) - Silchar (PG)	Complete	Complete	Melriat	Data and voice reported dtd 31.03.2019. SAT Pending.	
2	132kV Khandong - Haflong (PG)	Complete	Complete	Khandong, Halflong	Oct-19	
3	132kV Dimapur (PG) - Doyang (NEEPCO)	Complete	Complete	Doyang, Dimapur	Oct-19	
4	132kV Doyang (NEEPCO) - Mokokchung (state)	Complete	Complete	--	Oct-19	
5	220kV Mokokchung (PG) - Mariani (PG)	Complete	Complete	Mokokchung, Mariani	Oct-19	
6	400kV Mariani (PG) - Kathalguri (NEEPCO)	Complete	Complete	Kathalguri	Oct-19	
7	400kV Surjamani Nagar - (TSECL) - Palatana (OTPC)	30.967/36.7 Km	plan delayed due to non-granting of shutdown as crossing	--	Oct-19 subject to Shut down clearance in Sept19	
8	132kV Badarpur (PG) - Jiribam (PG)	Stringing progress: 48/67.16 Km	plan delayed due to non-granting of shutdown as crossing	Jiribam	Dec-19	
9	Bongaigaon (PG, 400kV) - 220kV Salakati - 220kV BTPS	0/ 4.5 km	Work on halt due to flood	Bongaigaon, Salakati	Jan-20	
10	400kV Mirza (Azara) - Byrnihat	0/ 47.208 km	Installation to be started	--	Dec-19	
11	400kV Silchar - Palatana	Stringing completed: 61.146/ 247.409 km. RoW Issues.	On halt due to flood & non-issue of on time PTW by Pallatana for grid security	Palatana	Feb-20	
12	132kV Agartala (TSECL) - RC Nagar (NEEPCO)	Complete	Installation in progress.	--	Space is provided by NEEPCO IN August only.Oct19	
13	132kV Jiribam (PG) (Manipur) - Loktak (NHPC)	0/ 82.461 km	Work to be started, Jiribam state end space issue	Loktak	Feb 20. Earlier gang faced ROW issue and fled site near/on route to Loktak	
14	132kV Loktak (NHPC) - Imphal (PG)	Complete #	OPGW part completed. Equipment I&C in progress.	Loktak, Imphal	Oct-19	
15	P.K. Bari (TSECL) - LILO of NETCL Belonia	0/ 10.441 km	Work to be started	Beliona	Jan-20	
16	132kV Pare - Chimpu	0/ 31 km	OPGW Supply Completed. Works yet to started for I&C.	Pare	Jan-20	
Manipur State Sector						
1	132kV Yurembam - Yaingangpokpi	Complete #	OPGW part completed (except Approach cable).Installation of Equipment are also completed. WIP	Yaingangpokpi	Oct-19	
2	132kV Yaingangpokpi - Kongba	Complete #	OPGW part completed (except Approach cable).Installation of Equipment are also completed. WIP	Kongba	Oct-19	
3	132kV Kongba - Kakching with LILO at Thoubal	Complete #	OPGW part completed (except Approach cable).Installation of Equipment are also completed. WIP	Kakching, Thoubal	Oct-19	

ANNEXURE 7

ANNEXURE 7						
Status as per 15th NETeST						
S. No.	Link name	OPGW Stringing Status	End Equipment Status	RTU to get integrated after Link Completion	Status as per 15th NETeST	Status as per 16th NETeST
4	132kV Imphal (State) - Karong	45.4/ 60 km. Work in progress.	OPGW Stringing in progress/ ROW Faced	Karong	Nov 19/ ROW to be solved. Matter intimated to State MSPCL	
5	132kV Kakching - Churachandpur	19.60/ 38 km. Work in progress.	OPGW Stringing in progress/ ROW Faced	Churachandpur	Nov19/ Work delayed & to restart after collapsed tower restored by State	
6	132kV Loktak (NHPC) - Ningthoukhong	Complete #	OPGW part completed Installation of Ap Cable/Equipment WIP	Ningthoukhong	Oct-19	
7	132kV Yaingangpokpi - Hundung	14.5/ 30 km	OPGW Stringing in progress	Hundung	Nov-19	
8	132kV Kakching - Chandel	16.37/ 25 km	OPGW Stringing in progress	Chandel	Oct-19	
9	132kV Loktak (NHPC) - Rengpang	0/ 47 km	OPGW stringing work yet to start. ROW/miscreant problem faced. Assistance of supervisor sought from MSPCL	Rengpang	Mar-20	
10	132kV Jiribam - Jiribam (State)	0/ 1 km	OPGW stringing work yet to start.	Jiribam(State)	Jan-20	
11	132kV Ningthoukhong - Churachandpur	16.80/ 32 km	OPGW Stringing in progress	Ningthoukhong	Oct19/ Work delayed & to restart after collapsed tower in that line. restored by State in Aug19 & work restarted	
Tripura State Sector						
1	132kV Agartala (TSECL) - Barumura (GTP)	Complete	Complete	Baramura	SAT Pending	
2	66kV 79 Tilla Grid (TSECL) - Badarghat	Complete	Complete	Badarghat	SAT Pending	
3	132kV Suramani Nagar (TSECL) - Budhung Nagar	Complete	Complete	BJ Nagar	SAT Pending	
4	132kV Agartala (TSECL) - SM Nagar (TSECL)	Complete	Complete	SM Nagar	SAT Pending	
5	132kV Palatana (OTPC) - Udaipur (TSECL)	Complete	With the completion of SM NagarPalatana OPGW, data/voice shall be made reported to SLDC	Udaipur	Oct-19	
6	132kV Udaipur (TSECL) - Rokhia (GTP)	Complete	With the completion of SM NagarPalatana OPGW, data/voice shall be made reported to SLDC	Rokhia	Oct-19	
7	66kV Udaipur (TSECL) - Gumti HEP	Complete	With the completion of SM NagarPalatana OPGW, data/voice shall be made reported to SLDC	Gumti	Oct-19	
8	66kV Gumti HEP - Amarpur (TSECL)	Complete	With the completion of SM NagarPalatana OPGW, data/voice shall be made reported to SLDC	Amarpur	Oct-19	
9	66kV Satchand (TSECL) - Sabroom (TSECL)	Complete	Islanded link. Neither of Terminal stations is a wideband location	Sabroom	Oct-19	
10	132kV 79 tilla Grid (TSECL) - Dhalabil (TSECL)	Complete	PDH installation & commissioning pending	Dhalabil	Oct-19	

ANNEXURE 7

	Status as per 15th NETeST					
S. No.	Link name	OPGW Stringing Status	End Equipment Status	RTU to get integrated after Link Completion	Status as per 15th NETeST	Status as per 16th NETeST
11	132kV Rokhia (GBPP) - Surjamani Nagar (TSECL)	Supply complete. Front not ready (TL under construction).	Front Not Ready	SM Nagar	Link to be deleted. Supply material is to be handed over to TSECL. DOCO will be done with consent from TSECL	
12	132kV Surjamani Nagar (TSECL) - Monarchak (NEEPCO)	Supply complete. Front not ready (TL under construction).	Front Not Ready	Monarchak		
Meghalaya State Sector						
1	132kV Nehu - Neigrihms	0/7.7 km	OPGW stringing work yet to start.	Neighrims	Jan-20	
2	132kV Khliehriat (PG) - Khlieriat (State)	Complete #	OPGW part almost complete (Except Approach cable part)	Khlieriat(State)	Oct-19	
3	132kV Khlieriat (State) - Myntdu Leshka HEP	24/24.932 km	OPGW part complete (Except Approach cable part).	Leshka	Oct-19	
4	132kV Khlieriat (PG) - Lomshnong (S/C)	5/25.19 km	Work on halt due to rainy season	Lumshong	Oct-19	
Nagaland State Sector						
1	132kv Kohima (132kV) - Kohima (220kV)	0/ 25 km	OPGW stringing work yet to start.	Kohima(220 kV)	Dec-19	
2	132kV Kohima - Wokha	0/ 58 km	OPGW stringing work yet to start./ DOP to ensure completion of Links of LILO of WokhaKohima at New Kohima/Jadhima	Wokha	Dec-19	
3	132kV Doyang - (NEEPCO) - Sanis	0/ 10 km	OPGW stringing work yet to start	Sanis	Jan-20	
Mizoram State Sector						
1	Aizawl - Zemabawk I	0/ 1 km	I&C - Work in Progress	Zemabawk	Dec-19	
II.	MW Vacation Scheme					
1	132kV Silchar - Srikona	Complete	Complete	Sirkona	Complete	
2	132kV Mariani - Mariani	Complete	Complete	Mariani(state)	Complete	
3	132kV Nirjuli - Ranganadi with Pare	RoW Issue	Supply and Installation over. SAT/ Commissioning pending.	Pare	03 months after ROW is resolve OPGW part completed (except Railway/high way diversion part where work is stopped due to ROW)/ Matter taken up through NERPC. Equipment installed & Commissioning pending..	
4	Imphal (PG) - Imphal (State)	Complete	I&C - Work in Progress	Imphal(state)	Oct -19 Equipment installation WIP & Commissioning pending	
5	132kV LILO of aizawl - Zemabawk-II at Melriat Sub-station	Complete	Jul-19	Melriat	Complete	

ANNEXURE 7

		Status as per 15th NETeST				
S. No.	Link name	OPGW Stringing Status	End Equipment Status	RTU to get integrated after Link Completion	Status as per 15th NETeST	Status as per 16th NETeST
6	132kV Melriat-Shimui	Complete	I&C - Work in Progress	Shimmui	Oct'19 Sihmui end State station not ready -Not charged. Equipment installed at one end	
7	132kV Mokokchung (PG) - Mokokchung (State)	Complete	I&C - Work in Progress	Mokokchung(state)	Oct'19 Equipment installed & Commissioning pending	
8	Ranganadi - Gohpur (Part-I)	Complete	Complete	Gohpur	Completed	
9	Ranganadi - Gohpur (Part-II)	Complete	Complete	Gohpur	Completed	
10	Aizawl - Zemabawk II	Complete	I&C - Work in Progress	Zemabawk II	Oct'19 Equipment installation WIP & Commissioning pending	
11	Dimapur - Dimapur	Complete	I&C - Work in Progress	Dimapur (State)	Oct'19 Equipment installation WIP & Commissioning pending	
12	132kV Ranganadi - Ziro	Complete	I&C - Work in Progress	Ziro	Oct'19 Equipment installation WIP & Commissioning pending	
13	132kV Lekhi-Itanagar/ Chimpu SLDC	Complete	I&C - Work in Progress	Lekhi	Oct'19 Equipment installation WIP & Commissioning pending. But same link is also affected by NirjuliRanganadi LINK LILO at Leikho. Then WB is extended from Leikhi to Chimpu	
14	132kV LILO of Nirjuli-Ranganadi at Lekhi	RoW Issue	I&C - Work in Progress	Lekhi	03 months after ROW is resolve OPGW part completed (except Railway/high way diversion part where work is stopped due to ROW)/ Matter taken up through NERPC. Equipment installed & Commissioning pending..	
15	BNC LILO-25 KM	--	--	--	Delayed due to Flood Oct-19. subject to Shut down clearance in Sept19 Equipment partly installed Yet to be commissioned. Shut down was not approved I 158-159th OCC & plan delayed	