# North Eastern Regional Power Committee Agenda

### For

### 15th NETeST Sub-Committee Meeting

Time of meeting: 14:00 Hrs.

Date of meeting: 21st October, 2019 (Monday)

Venue : "Hotel Nandan", Guwahati.

### A. CONFIRMATION OF MINUTES

### CONFIRMATION OF MINUTES OF 14th NETeST Meeting held on 11.07.2019.

The minutes of 14<sup>th</sup> NETeST Meeting held on 11<sup>th</sup> July, 2019 at Guwahati were circulated by NERPC vide letter No. NERPC/SE(O)/TeST/2019/ dated 29<sup>th</sup> July, 2019.

The Sub-committee may confirm the minutes of 14<sup>th</sup> NETeST meeting of NERPC as no comments/observations were received from the constituents.

### ITEMS FOR DISCUSSION

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

SN	Utility	Status as informed in 14 <sup>th</sup> NETeST	Latest status		
UPO	GRADATION OF	SLDCs			
1	Assam	Completed in all respect.  Assam is requested to complete SAS upgradation which is under progress.			
2	Tripura	Completed in all respect.  However for GPRS system communication, Broadband connection for all site & SLDC( Site where bband not possible, 3G data activated SIM to be given) to be provided by 25-07-2019 but getting delayed due to administrative issues.			
3	Meghalaya	Completed in all respects.			
4	NERLDC	Completed in all respects.			
NEV	NEW SLDCs				
5	Manipur	SLDC SCADA EMS part completed in all respect. 5 sations are reporting. Three (03) stations not reporting: Kongba, Chandel and Tipaimukh. Feasibility of providing Broadband at the station-level to be explored.			

6	Nagaland	SLDC SCADA EMS part completed in all respect.  GPRS scheme implemented for 6stations.  Nagaland-DoP to strictly adhere to the timelines for rectification works as per MoM signed with NERLDC.	
7	Mizoram	SLDC SCADA EMS part completed in all respect.  Out of 4 RTUs, only 1 RTU is reporting at present and OPGW between Lungmaul-Aizawl is not working.  Mizoram is requested to provide GPRS/ BB connectivity for Zuangtui, Lungmual and Sihhmui.	
8	Ar. Pradesh	SLDC SCADA EMS part completed in all respect.  Regarding communication (GPRS), DOP,AP has taken up with POWERGRID for some stations. For other stations, DOP,AP has opted in state projects.  NERLDC requested NERPC to take up the matter of non-participation and telemetry related issue with DoP, AP.	
9	Backup NERLDC	Completed in all respects.	

Any pending points may be discussed

Members may kindly intimate the status.

### A.2 Status of FO works under different projects:

Latest status as per 14<sup>th</sup> NETeST:

Name of the Project	Latest status may be intimated	
	M/s KEC Handing over MOM signed between AEGCL and	
	PGCIL.	
	A. M/s TENDOT	
	<b>a.</b> WIP in all 14 links	
	<b>b.</b> Progress affected due to ROW.	
	c. Expected completion March'19.	
	NOTE:	
MW Vacation & OPGW	Arunachal Pradesh may please provide new tower route schedule & readiness for LILO part (Lekhi connectivity from existing Nirjuli-Ranganadi line). The schedule completion 2 months from receipt of new tower route schedule.	
Project		

Agenda for 15 <sup>th</sup>	<sup>h</sup> NETeST Meeting to	be held	l on 21st Octo	ber, 2019

Railway diversion of POWERGRID also suffering due to ROW in 3 locations to be resolved by Arunachal Pradesh. NERTS replied 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. Action: DoP Ar. Pradesh **TRIPURA** 257 of 320 .319 (Actual 257, 63km-no front) Km Completed. Details attached 63.522 km (02 links viz. SM Nagar~Rokhia & Nagar~Monarchak, line is under construction) front not available due to construction of 2 lines by TSECL Completion Status: NOTE1: Silchar-Pallatana OPGW work under halt due to objection of NETC & OTPC for transient lightning related fault in rainy season. NOTE 2: Manipur: Supply - Complete, Erection: FO NER 160/365km km, Team is mobilized by M/s TCIL. Target completion: July-19. Battery Expansion/Additional bank/DCPS under NERFO-Supplied requirement of OPGW installed Central Sector: NERTS mentioned that the only OPGW link pending in Tripura is the Surjamani Nagar-Palatana and rest all links have been completed. There is space constraint in RC Nagar. Support from RC **NEEPCO** requested Nagar is for commissioning of the link. Letters & Reminders NEEPCO. Without the connectivity of Fibcom link is pending for a long time. The real-time data of stations such as Rokhia, Udaipur, Gumti and Kamalpur will report to Tripura-SLDC by 01st August in case space is provided by NEEPCO in time at R.C. Nagar. Action: NERTS & NEEPCO.

3

Connectivity of Islanded location Satchand & Sabroom

(Satchand-Sabroom OPGW part is completed) TSECL may use PLCC or NERPSSIP fiber to

Tripura:

connected by TSECL. The same is pending from

Action: TSECL

### Meghalaya:

WIP for both equipment and OPGW part. MePTCL may help in getting Shut-down of Leskha-Khliehriat Link. A shut-down time of around 5 hrs is required for it.

Action: MePTCL & NERTS.

### Manipur:

- 1. The work got delayed due to tower collapse between Kakching- Churachandpur- Ningthoukhong. As reported same is restored recently, the work will be restarted.
- 2. 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.
- NERLDC requested for progress report in the matter of links in Manipur at the end of Jul '19 and convey the list of communication links which will be extended till Aug'19 for completion.
- Note: NERTS mentioned that works related to RTUs and associated cabling-works which are handed over to state-utilities is not under the scope of NERTS and hence needs to be done by state-utilities themselves. The requisite hand-sets for voice communication needs to be procured and provided by the site/SLDC itself.
- MS i/c-NERPC stated that the jurisdiction of works to be done by POWERGRID and State-utilities need to be specified and brought-out clearly for time execution of projects. All the works to be done by POWERGRID and state-Utilities can go in parallel for achieving the targets in time.

Action: POWERGRID-NERTS to write to each state about works which needs to be done from their side with the corresponding timelines.

15 Location Completed.

	Except Umtru Power Station. MePTCL informed that there is space constraint in the present PLCC room. A separate room will be needed to accommodate the equipments under this project.
Upgradation of ULDC	NERTS informed that official from NERTS had visited for collection of card and found there is still no space. Without the same, project cannot be completed. And so help from MEPTCL/G division is requested.
FO node	2nd visit made. Report submitted to Director, Generation-MePGCL. Further space inside UMTRU is to be cleaned & AC system not working.
	NERTS informed that joint visit of SLDC, MePTCL & POWERGRID was done 08.05.2019 to Umtru after meeting CE-Generation. It was decided that SDH & PDH shall be installed in PLCC room. Original ULDC fibers to be used to connect STM16 ring. However, MePTCL may connect their equipment with Fibcom or ECI equipment for wide band path access. Further PLCC room at Umtru is to be made dust free & facilitated with AC by the owner. Detailed scheme sent to MePTCL.
	A meeting called by PGCI with MePTCL for making schedules of work but postponed to pre-assignments of MePTCL. Target for meet (MePTCL & PGCI) by 20.07.19

### 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	Space constraint in Umtru, non-availability of fiber in Misa-Dimapur-Imphal (old OPGW) & Space in Kohima
MW Vacation	ROW issue in Nirjuli-Ranganadi Line, non-readiness of two tower peak in DoP AP transmission Line for LILO to Leikhi. Stoppage of work due to ROW/Paddy field etc.

NERTS may please submit the latest status link-wise under various FO projects *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 14<sup>th</sup> NETeST meeting NERLDC mentioned that Tripura has given comments regarding editing its corresponding network in communication map on 10-07-2019 and the same will be incorporated in the existing communication map. The map will be updated as and when inputs are given by state-utilities and NERTS to keep it upto-date for necessary use.

NERLDC mentioned that representatives from NERPSIP team are not attending the NETeST meeting and hence the corresponding updates are not getting updated to the Forum. Hence, NERPSIP team should be invited to the quarterly review meeting on NERPSIP projects conducted by NERPC.

### 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-B.2**, which is less than 50% in the region.

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

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

### 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. However, NERTS is requested to solve the issue in remaining three (03) stations namely, 220 kV Dimapur (PG) S/s, 220 kV Mariani (AS) and Kopili HEP

Status of Loading of Power System Analysis package by IIT Mumbai: Five (05) applications of Powergrid Analytics Software (PAS) out of Six (06) were uploaded in NERLDC URTDSM system, by IIT Bombay and PGCIL officials, in the month of July'19. However, an application for Control schemes for improving system security is still pending for uploading. NERTS is requested to expedite the work.

NERLDC may confirm or update what to be done for rest of that stations based on the feedback by POWERGRID after corrections done as per system study group of NERLDC.

### NERTS, NERLDC may please intimate the latest status

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

In 14th NETeST meeting the following timeline(s) were agreed to by the different utilities:

Name of utility	GPRS SIM/Broadband	Lease Line connectivity at SLDC
TSECL	2 (DharmaNagar and PK Bari) Location completed (SAT not signed by TSECL) but for other locations, SIM is yet to be provided by State Utility. NERTS informed that Broadband connection shall be provided, wherever possible, for better data connectivity.	Not Available.
MSPCL	All stations are reporting.	Available
DoP Nagaland	5 out of 11 locations (Nagarjan, Khipire, Mokokchung, Kohima & LHEP) completed. For other locations, link could not be established due to poor network. Party requested DoP, Nagaland through letter dated 01.07.2019 to provide broadband connection.	Not Available
P&ED Mizoram  3G SIM & Internet link with static IP is yet to be provided.		Not Available

TSECL/MSPCL/DoP Nagaland/P&ED Mizoram/NERTS may please inform the latest status.

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

### 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.'
- **ii. Kathalguri:** SSingle-channel PLCC between Kathalguri and Misa. The matter was discussed in 14th NETeST meeting, it was deliberated that 'NERTS informed the forum that the PLCC link from Kathalguri to Mariani station was tested. Mariani station has a wide-band connection for further data transfer. The Kathalguri-Mariani PLCC link may be used as a backup path after

completion of FO connection. The work will be completed by first week of Sep'19.'. The aforesaid work is yet to complete.

**Doyang:** Real-time Data of Doyang HEP are not reporting since 16/09/2019. On futher observation, it was found RTU is not getting through to communication equipment at Doyang. Phone is also not working as Doyang sub-station is not able to hear voice on Orange-VoIP phone.

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 14th NETeST and it was deliberated 'NERTS informed the forum that one phone is working. The other voice link which was earlier working via PLCC may kindly be restored by NTPC. NERTS has already allotted port for the same. NTPC representative were absent. Since NTPC member is absent NERLDC requested Forum to inform about shift of VoIP phone from Switchyard to Unit Control Room in subsequent meeting. NERTS provided "23640135" as second number. The same needs to be extended to all the unit control rooms at the earliest.' However, the VoIP are still not extended till control rooms of NTPC BgTPP.

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 data of the sub-station takes a lot of time in pooling (happens automatically after every communication failure and restoration). It generally takes about 1 hr. for this station. The matter was highlighted in 14th NETeST meeting, it was deliberated that 'NERTS will address the issue' as well as in meeting held between NERLDC and NERTS on 17/09/2019. The issue is long pending and yet to solve.

NERTS, POWERGRID may address the issue by finding and resolving the issue of slow pooling on priority with strict deadline.

### NERTS may please intimate the status.

**d) OPTC Palatana:** Real-time data of Palatana are reporting over single channel of PLCC between Palatana - Silchar. It is observed during data outages that restoration of data takes significant amount of time. However, it is requested to ensure dualchannel which can reduce the outage period of data.

### OTPC may please intimate the status.

**e) NHPC Loktak:** In 14th NETeST NHPC informed the forum that the Notice Inviting Tender (NIT) has been approved and will be uploaded in CPP Portal for tendering purposes. The work-order is expected to be placed by Sep'19 with a completion schedule of three (03) months i.e. end of December 2019.

### NHPC may please intimate the status.

**f) Tripura: i. General Issue:** Data of all the sub-stations (especially southern Tripura) goes OUT in case of any grid failure. All data is being received through Agartala-Rokhia line in which any tripping leads to high noise in PLCC leading to data interruption.

In 14<sup>th</sup> NETeST Manager, TSECL informed the forum that Tripura will investigate on the mentioned issues and rectify it at the earliest.

**ii. Surjamani Nagar:** Battery bank issues are being faced in the sub-station. All data goes OUT in case of any power supply failure. In 14th NETeST, Manager, TSECL informed the forum that the battery will be replaced in July, 2019. And NERTS requested that Air-conditioning environment needs to be provided in all battery-bank rooms at the earliest.

### Tripura may please intimate the status.

**g) Meghalaya owned stations:** SLDC NEHU may update the stations as per observations, in table, in SCADA system of SLDC. Necessary help will be extended by NERLDC.

S1. No.	Station Name	Observation	
1.	Ampati	Entire Station not modelled at SLDC.	
	-	EMS database not modelled in SLDC.	
2.	Rongkhon	Only SCADA database is modelled.	
		EMS database not modelled in SLDC.	
3.	Nangalbibra	Only SCADA database is modelled.	
		EMS database not modelled in SLDC.	
4.	Nongstoin	Only SCADA database is modelled.	

### MePTCL may please intimate the status.

**h) Mizoram:** 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.

i) **Assam:** SLDC Assam 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	
		EMS database not modelled in SLDC.	
1.	Majuli	Only SCADA database is modelled.	
		EMS database not modelled in SLDC.	
2.	Dhemaji	Only SCADA database is modelled.	

### SLDC Assam 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	
		EMS database not modelled in SLDC.	
1.	Meluri	Only SCADA database is modelled.	
		EMS database not modelled in SLDC.	
2.	Kiphire	Only SCADA database is modelled.	

### SLDC Nagaland may please intimate the status.

### **B.6 Status of pilot VSAT project:**

The quotation for terminal server for converting 101 RTUs to Ethernet output has been acquired which is of cost Rs. 1, 40,000.

NERPC may please make consensus and gather purview of constituents in implementation and cost-sharing of VSAT pilot project.

### Members may please discuss.

### B.7 Drawal points data availability:

In 14<sup>th</sup> NETeST meeting, MS i/c-NERPC stated that the states have to put efforts to improve the availability of the telemetry, which in turn is causing them huge penalty amounts in the DSM Pool Account, etc. Major steps needs to be taken at the earliest by all utilities so that the drawl point data availability can be ensured at the earliest.

NERLDC insisted that all constituents must maintain the telemetry data of drawl points consistently..

### NERLDC may please intimate the status.

### **B.8 VSAT For Roing Tezu Namsai**:

Demo VSAT communication link was established between 132 kV Tezu S/s and NERLDC for transmitting real time data of 132 kV Tezu S/s. The demo was successful and data were transmitting from 21st August 2019 to 30th September 2019 without interruptions in link. NERTS is requested to update the status of data communication link for 132 kV Roing, Tezu and Namsai.

### NERTS may please intimate the status.

### B.9 Readiness for supply of CFEs in Badarpur (2<sup>nd</sup> TS Node)

Two nos. of links have been taken from POWERTEL on cost-plus basis for Badarpur to Backup NERLDC, Misa to Backup NERLDC. Process of procurement of Terminal servers has been initiated by NERLDC, Purchase order will be placed by the month of October'19. Following which vendor will take two-three months for supply, installation and commissioning of the equipment. NERTS is requested to submit the list of stations which can be dropped at Badarpur substation.

### NERLDC may please intimate the status.

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

The database validation (refer **Annexure-B.10**) 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 / 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-B.11a**. NERLDC extended support for integrating data of LTPS and NTPS. However, the data integration of LRPP and NRPP are pending as per MoM attached as **Annexure-B.11b**.

The corrective actions for rectification to be done by APGCL and AEGCL and 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.

### 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-B.12**.

The corrective actions for rectification to be done by MePTCL 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.

### MePTCL may please intimate the status.

### B.13 Schedule for completion of FO projects under execution:

A meeting on the above referred matter has been done between NERTS, POWERGRID and NERLDC, POSOCO on 17-09-2019. The list of undergoing FO projects can be referred from **Annexure-B.13**.

### Members may please discuss.

### B.14 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-B.14**.

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.15** Shut Down Procedure for Optical Links:

In 14th NETeST meeting, NERLDC mentioned that the shut-down procedure is not being followed by many utilities and at many occasions which is leading to real-time data interruption. Many-a-times the shut-down of communication links is being taken without prior intimation OR just an e-mail is being sent for intimation.

MS i/c-NERPC stated that the shut-down procedure of communication links needs to be strictly followed by all utilities.

### Members may please discuss.

## B.16 <u>Dual channel availability for reliable and redundant communication system</u> 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.

NERTS to update the dual-channel reporting considering the completion of FO projects by Dec'19. Dual-channels are required at both Shillong and Guwahati premises of NERLDC, POSOCO.

### NERTS and NERLDC may please discuss.

### B.17 Long outage of RTU data:

In 14th NETeST meeting, DGM, NERTS informed the forum that the process for reporting fault & restoration (for each station, NERTS) is under preparation and will be shared by NERTS with NERLDC.

Further regarding any issue related to Regulation/CERC-May'17, NERLDC/NLDC may write & take up with LD&C, CC-POWERGRID for early solution.

### NERTS may please intimate the status.

# B.18 Standard procedure to exchange the information regarding the SCADA database between SLDC and NERLDC.

In the 14th NETeST meeting, GM, NERLDC mentioned that the SCADA databases of SLDCs should always be in sync to eliminate the non-availability of data due to mismatch in respective databases. He requested all SLDCs to maintain the databases in sync and inform NERLDC in case of any change.

### Members may please discuss.

# B.19 The time line for OPGW connectivity to the following Power Stations of NEEPCO:

- i) AGBP
- ii) DHEP
- iii) PaHEP

In the 14th NETeST meeting, NERTS informed the forum that the OPGW connectivity for the above stations are covered under NER-FO project and timeline(s) are as follows:

- i) AGBP July'19
- ii) DHEP July'19
- iii) PaHEP Dec'19.

### Members may please discuss.

# B.20 <u>Utilities executing regional projects to submit monthly progress report to NERPC:</u>

The issue was discussed in 14th NETeST meeting and NERPC stated that monthly progress report may be submitted to NERPC. Till date, only NERTS is submitting the same. NERLDC & NERTS may discuss between each other as & when required as needed for smooth grid monitoring. The monthly progress report shall contain information related to projects under micro-wave vacation, FO expansion and PSDF funded projects and State projects.

Members may please discuss.

# B.21 <u>Integration of Dikshi HEP real time data and pending Voice communication:</u>

Dikshi HEP generation station data were integrated on 12/09/2019 by extending all technical support from NERLDC. Real time data are reporting over VSAT communication link. However, voice communication is pending. DoP, AR may kindly take up with Dikhsi for providing dedicated voice communication from Dikshi to SLDC Arunachal.

### DoP, AP may please intimate the status.

### **B.22 Integration of RTUs over completed FO links:**

POWERGRID informed that following FO links are completed:

a. Imphal(State) to Yaingangpokpi

- b. Yaingangpokpi to Kongba
- c. Nagarjan to SLDC Nagaland.
- d. Dimapur to Doyang

On completion following RTUs should be integrated by respected states:

- a. Yaingangpokpi and Kongba: By Mainpur State
- b. Nagarjan: By DoP, Nagaland.c. Doyang HEP: By NEEPCO

### DoP, Nagaland, MSPCL and NEEPCO may please intimate the status.

### B.23 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
1	Jiribam	30 min
2	Mariani	60 min
3	Salakati	60 min
4	Silchar	30 min
5	Tezu	05:30 hr
6	Ziro	Date and Time
7	Imphal	20 min
8	Khliehriat	15 min
9	Mokokchung	60min

### NERTS may please intimate the status.

### B.24 Delay of FO Expansion for shut down related issues:

Non availability of Shut down in last 3 OCCs for OPGW Links and related delay in project execution. (Many shutdown like LILO of Rang anandi Balipara at BNC, LILO of Ranganadi-Nirjuli, SM Nagar-Pallatana(Silchar Pallatana) has been cancelled or postponed for grid constraints or due to avoiding loss of generation). The executing agencies like Tendot, TCIL have been asking gang idling charges. All are requested to put emphasis so that shut down (for power line crossing, critical safety, diamond formation, river cross where earth wire not available) is allowed in time to complete project in time.

### Members may please discuss.

# B.25 Co-ordination issue at some sites where Link is ready but RTU not connected through New Link:

POWERGRID had intimated respective utilities for advance action (what is to be done by State/ISGS & what is in scope of communication vendor). However, for example, even after link & port details are ready & communicated, RTU of Kathaguri, Do yang, Khandong are not integrated.

Members may please discuss.

### B.26 Data restoration in minimum possible time:

A brief description will be given by POWERGRID on data restoration in minimum possible time when Kopili Node was disturbed due to water burst.

Members may please discuss.

### Any other item:

### Date and Venue of next NETeST:

It is proposed to hold the 16<sup>th</sup> NETeST meeting of NERPC on second week of January 2020. The date & exact venue will be intimated in due course.

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Annexure B. 2
Telemetry Availability Status at NERLDC from Constituents (as on 03-10-2019):

SI. No.	Name of the Constituents	Total Analogue Data points	Total Digital Data points	Total Data Points	Analogue Data points Reporting	Digital Data Points Reporting	Total Report ing	Total Percentage of data Availability
1	Arunachal Pradesh	128	172	300	3	38	41	13.66%
2	Assam	1476	1994	3470	697	809	1506	43.40%
3	Manipur	180	255	435	48	77	125	28.73%
4	Moghalaya	409	386	795	232	97	329	41.38%
5	Mizoram	71	50	121	12	12	24	18.60%
6	Nagaland	237	270	507	51	128	179	35.30%
7	Tripura	524	715	1239	168	178	346	27.92%
8	PGCIL	568	1147	1715	470	973	1443	84.14%
9	NEEPCO	205	295	500	137	214	351	70.2%
10	NTPC	28	53	81	28	53	81	100%
11	OTPC	41	78	119	41	78	119	100%
12	NHPC	20	36	56	17	29	46	82.14%
	NER	3867	5423	9290	1887	2657	4544	48.91%

# ANNEXURE 8-10 STATUS OF DATA VALIDATION OF NERTS STATIONS AS ON 10/10/19

SI. 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	New gateway under integration
7	Haflong	Completed
8	Imphal	Completed
9	Itanagar(Nirjuli)	Completed
10	Jiribam	Completed
11	Khleiriat	Completed
12	Kopili-Ex	After completion of GIS
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	Silchar gateway doesn't support configuration of both side of ICTs
22	Tezu	To be corrected after implementation of VSAT
23	Ziro	Completed

### ANNEXURE 8.114

SL. NO	Name Of The Sub-Station	Present Reporting Source	Target Date Of Completion as per MOM	Issue Description	Remarks	New Target Date
1	AGIA	RTU	August 19	SAS Upgradation work in progress		January,20
2	ASHOK PAPER MILL (APM)	NONE	August-19	RTU is Faulty     SAS Upgradation going on	Covered under PSDF PLCC Equipement and associated service project.	December,19
3	AZARA	SAS	August-19	Most of Digital Data not reporting     2. 220KV BUS3 Voltage Wrongly reporting     3. 220KV BUS3 Frequency not reporting     4. Transformer Tap position not reporting	ABB SAS Engineers Deputation Required.	е
4	PANCHGRAM	None	July-19	No Issue	Completed	
5	BEHIATING	SAS Gateway	July-19	Transformer2 LV not reporting because of meter issue	New MFM has been ordered as per RE, Behiating GSS.	Feb,2020
6	BILASIPARA	SAS Gateway	July-19	Gateway Issue	Diagnosis To be done by ALSTOM/GE SAS Engineers	Not provided
7	BNC	NONE	July-19	SAS COMMISSIONING NOT COMPLETED.     2. PLCC link work under PSDF under progress	SAS Upgradation work will start Soon material received at Substation	December,19
в.	BOKAJAN	RTU Gateway		Transformer2 Analog Data not reporting     Isolators are wrongly reporting     Transfor's tap positions not reporting     Transformer-2 ,HV & LV breaker status to be checked     SAS work yet to start     ECI Mux Card Issue At SLDC	Bokajan is restored on 17.08.2019 and it is reporting now. All other issues would be resolved once SAS gateway is commissioned. SAS penel commissioning is yet to be started.	Mar-20
9	BOKAKHAT	SAS Gateway	April-19	1.Bus Coupler status not reporting 2.Bus-2 , Voltage & frequency not reporting 3.Transformer-1 & 2 Tap positions not reporting	Field Issue	Not provided
10	воко	RTU		ECI Mux data Card issue at SLDC,     SAS conversion work not yet     started	SAS Upgradation work will start Soon material received at Substation	Feb,2020
11	BONGAIGAON (BTPS)	RTU	April-19	SAS Upgradation Partially Completed	Reporting	24
12	BORDUBI	NONE	May-19	SAS Gateway Commissioning not done		Feb,2020

ANNEXURE \$1.5

SL. NO	Name Of The Sub-Station	Present Reporting Source	Target Date Of Completion as per MOM	Issue Description	Remarks	New Target Date
13	BORNAGAR	SAS Gateway	April-19	Bypass Isolator of Dhaligach and Rangia not reporting     Transformer 3 Analog and Digital not reporting	Bypass isolator MB (Marcelin Box)not availabe     Transfromaer 3 Panel can not be Intregrated with present SAS there is no supplied BCU panel in PSDF Scheme	Not provided
14	CHANDRAPUR	NONE	July-19	SAS Upgradation Work in Progress		November,19
15	DEPOTA	SAS Gateway		BUS Isolator of Dhekiajuli and Ghoramari wrongly reporting     Transformer1 Analog and Digital not reporting     BUS-2 Voltage & Frequency not reporting     BUS sectionalizer isolator not reporting     Transformer-1 & 2 tap positions not reporting     It isolator Not Reporting	Transfromer 1 Bay BCU     Burn out 2. No     Control cable Available at     for indication Bus2     voltage & Current     No Transducer Present     for Transformar 1&2 Tap     Positions 4. For     Remaining issues     necessary Action taken     up with Siemens     Engineer	Not provided
16	DHALIGAON	RTU	May-19	Transfor 1 and 3 Analog and Digital not reporting     BUS1 Voltage not reporting     BUS2 Voltage and Frequency not reporting	Transfromer1& 3 is not in the Scope of Present SAS Upgradation Pragram	Not provided
17	DHEKIAJULI	SA5 Gateway	May-19	1. Field Issue	Dalgnosis to be done by Vention Engineers	Not provided
18	DHEMAII	NONE	July-19	SAS COMMISSIONING WORK IN PROGRESS.		December,19
19	DIBRUGARH	SAS Gateway	July-19	Bus2 Voltage and Frequency not reporting     Transformer 1 and 2 Tap position wrongly reporting     Tinsukia BUS1 and BUS2 isolator wrongly reporting	Reporting	-
20	DIPHU	RTU	July-19	SAS Upgradation Work in Progress by M/s ERL		Dec-19
21	DISPUR	SAS Gateway	July-19	Chandrapur Analog and Digital not reporting     Transformer 2 Analog and Digital not reporting	Not reporting	Not provided
22	DULLAVCHERRA	RTU		ECI Mux card Card issue at SLDC	To be covered under PSDF PLCC Equipement project	Dec-19

### ANNEXURE & B. 11 - a

SL. NO	Name Of The Sub-Station	Present Reporting Source	Target Date Of Completion as per MOM	Issue Description	Remarks	New Target Date
23	GAURIPUR	SAS Gateway	April-19	All Digital are Suspect     Transformer -1 tap position     suspect	Completed	-
24	GOHPUR	SAS Gateway RTU	July-19	SAS Upgradation Work In progress     Link Issue		December,19
25	GOLASHAT	RTU	July-19	SAS work under progress by M/S ERL		January,20
26	GOSSAINGAON	NONE	August-19	EARTH MAT Work Going on	Completed	-
27	HAFLONG	RTU	October-19	LINK WORK UNDER PROCESS.	Waiting for Financial approval followed by LOI	Not provided
28	HAILAKANDI	SAS Gateway	April-19	Current Values of fedder and     Fransfromer Not Reporting     Analog data of Panchgram Not     Reporting	GE SAS Engineers Deputation Required,	Not provided
29	JAGIROAD	SAS Gateway	April-19	PLCC Link Issue	Gateway Issue, Inverter problem	September, 19
30	JAWAHARNAGA R	SAS Gateway	April-19	All data suspect except MVAR data of Sarusajai     Z.Gateway Issue	ERL engineer deputation required	December,19
31	JORHAT (GARMUR)	RTU	April-19	1.8us-1 voltage & frequency not reporting 2.Tranfo-1 all data suspect/wrongly reporting 3. Most of the digital status suspect/wrongly reporting 4. Transformer - 2 & 3 tap suspect	Not reporting	Sep-19
32	JORHAT (WEST)	SAS Gateway		No issue	Completed	**
33	KAHILIPARA	SAS Gateway	May-19	No Issue	Completed	
34	камакнуа	SAS Gateway		No Issue	Completed	-
35	KAMALPUR	SAS Gateway	April-19	BUS-1 Voltage and Frequency not reporting     Digital Data of Rangia Une1 not reporting     Transformer1 LV Digital not reporting.     Transformer2 LV Digital not reporting.	Field Issue	Not provided

### ANNEXURE # 6.11. A

SL. NO	Name Of The Sub-Station	Present Reporting Source	Target Date Of Completion as per MOM	Issue Description	Remarks	New Target Date
36	KOKRAJHAR	SAS Gateway		No Issue	Completed	*
37	NORTH LAKHIMPUR	NONE	July 19	Link Establishment Work in Progress	SAS Upgradation work under process, Unit to be established under NERPSIP	Oct-19
38	LTPS	RTU		Most of Digital Data not reporting    BUS Voltage wrongly reporting    BUS Card Issue at SLDC	Not reporting	Sep-19
39	KARBI-LANGPI	RTU + SAS		Only Generators data reporting	Single channel PLCC panel available. No channel available for Gateway data	Not provided
40	LANKA	RTU	July-19	SAS Upgradation work under process	Not reporting	Sep-19
41	MAJULI	NONE	July-19	LINK TO BE ESTABLISHED.	LINK TO BE ESTABLISHED.	January,20
42	MARGHERITA	NONE	August-19	SAS work not started yet     PLCC LINK NOT AVAILABLE.	SAS upgradation work not started yet	Feb,2020
43	MARIANI	RTU	July-19	Samaguri-1 Analog and Digital     Data suspect/ Wrongly reporting     Most of the Digital Suspect     BUS-2 Isolator of BUS reactor suspect     Tap position of transformers suspect	SAS upgradation work not started yet	January,20
44	MORAN	SAS Gateway	April-19	Transfer Bus Voltage & Frequency Nat reporting	Not reporting	Not provided
45	MATIA	SAS Gatoway		Link Issue	Tower Collapse at LOC no. 51	Oct*19
46	NAGAON (KHALOIGAON)	SAS Gateway	May-19		Reporting	=
47	NALBARI	SAS Gateway	April-19	BCU Issue	Reporting	-
48	NAMRUP	RTU		ECI Mux data Card Issue at SLDC	SAS upgradation work not started yet	Not provided
49	NAMRUP PS 1	NONE		1.SAS Gateway Commission not done	1.5AS Gateway configuration update is required as IP series at SLDC end got changed.	Not provided
50	NARANGI	SAS Gateway		Resolved	Completed	-

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# MOM held between APGCL and AEGCL at O/o GM LTPS Maibella, Assam-785689 on 6º September 2019

### Members Present:

For APGCL	For AEGCL	For NERLDC
Sri A. K Kalita GM LTPS	Sri, P. Saha AGM	Sri M. K Ramesh GM
Sri T Basumatary DGM	Sri D. Saikia DIM	
Sri A Saikia DGM	Sri A. Sarmah M)	
Sri H Hazarika AGM		

### Reference:

- APGCL/CGIM(G)/AERC/2018/115/PT-XI/39, dated 28-08-2019
- MD/AEGCL/DPRO/2017/Part-I/64 dated 29.08.2019

Following points were discussed for early integration of Switchyard data, LRPP data, LTPS Phase -II HV side data and Steam Turbine HV Data;

- Joint visit of AEGCL and NERLDC representatives made on 6° September in LTPS and LRPP Generating station with the objective of improving the telemetry status.
- A Joint meeting was organized by GM LTPS ,DGM LTPS and other senior and field officials along with AEGCL and NERLDC representative to decide how to proceed with improving the telemetry status and also Nodal officers for telemetry work was identified from APGCL and AEGCL for proposed actions and rectifications. Nodal officers from APGCL and AEGCL are as follows:
  - Sri Harinarayan Hazarika, AGM (Electrical) APGCL
  - b. Sri Bikash Sarma , DM APGCL
  - c. Sri Migom Mili ,DM APGCL
  - d. Sri Sanjay Mallick, AM APGCL
  - e. Sri Debojit Saikia DM AEGCL

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- It has been observed under joint visit of representatives that LV side 3 nos. Generators of LTPS Phase-II
  and 1 no. Steam Turbine Generator is reporting SLDC via AREVA C264 RTU installed at Switchyard Control
  Room. However the digital data i.e CB and isolutor status is not reporting
- in the LTPS switchyard all the analog data except Namrup Feeder I MW ,MVAR ,Bus Coupler CB and Isolator status are reporting to SLDC .
- No real time data from LRPP reporting to SLDC.
- Based on the above observation the team of APGCL nodal officers and AEGCL, NERLDC representatives a
  detailed field study was made and following are the suggestions for implementation
  - i. For LRPP

The nodal officers of APGCL have to study with the vendor Werstila for integration of electrical parameter data over IEC 60870-5-101/104 to the communication equipment located at switchyard control room. The nodal officers have to initiate an email to get the confirmation regarding the above said configuration on or before 16° September 2019.

Also the nodal officers have to collect detailed information on as built control system automation layout (Document No. CBG01247801A1000), Copy enclosed,

AEGCL will ensure physical communication interface for IEC 60870-5-101/104 is available at LTPS switchyard Communication equipment. The nodal officer of AEGCL has to ensure the link upto

ii. For LTPS Phase -II and Steam Turbine

SLDC Kahilipara.

Nodal officer of APGCL has to ensure the commissioning of 4 nos. MFTs at HV side of the Generator to C264 RTU and for the CB status data of both LV side and HV side of generator also to be provided.

During the above discussion APGCL submitted that 4nos. MFTs may be provided by AEGCL. In this nodal officer of APGCL may send official request through proper channel.

III. For switchyard

Namrup Fdr-1 analog data and CB data of Namrup Fdr-1 to be rectified by AEGCL by September 2019.

Integration of 11/132KV Trafo-1 and Trafo-2 Analog MW and MVAR data at HV side along with CB status of the bay need to be done by AEGCL.

Integration of 132/33KV Trafo-1 and Trafo-2. Analog MW and MVAR data at HV side along with CB status of the bay need to be done by AEGCL.

AEGCL to ensure the integration of above switchyard data latest by September 2019.

Voice communication from LRPP and LTPS to SLDC Kahlilpara

AEGCL will ensure the voice communication from LRPP and LTPS unit control room to Kahilipara for which APGCL has to provide necessary cabiling from unit control room to switchyard Communication room with necessary handset at unit control room. The work targeted to complete by September 2019.

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# 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)	
Akhil Singhal (Chief Manager, NERLDC)	B.Nikhla (EE, SP)
Sakaldeep Chauhan (Engineer, NERLDC) (Marian)	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 Mawial to NEHU to be taken up on priority to resolve the issue.
2	EPIP-1	New MFTs are required     Additional Digital Card to be procured for capturing remaining Digital inputs	0&M	Analog data by 2 <sup>rd</sup> Week of Jun'19	MFT's computability issues also being faced

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SI. 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> <li>New MFTs are required</li> <li>Additional Digital Card to be procured for capturing remaining Digital inputs</li> </ul>	O&M	Analog data by 2 <sup>nd</sup> Week of Jun'19	
4	Khleirlat	New Cables will be laid for all digital inputs.     Additional Digital cards to be procured for Isolators status.	OSM	3" week of Aug'19	Digital Cards are available only for CBs at present.
5	Killing	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	7iil 31 <sup>™</sup> May 2019	Some alarm at Killing and Indicating problem at EPI 2 and. May require manual tuning of PLCC panels ON/OFF of PLC panels can be tried
6	Leska	NSK 5 modem in PLCC panels seems to have some problem in its card	O&M	4 <sup>th</sup> Week of Jun'19	RTU and media seems to the functional. Speech transfer in working but not data transfer. MePTCL to test modern at Leska. May request PGCIt, to divert some additional Modern in spares, if available.
7	Lumshnong	Operation and Maintenance issues.     Needs to be checked and resolved	M&O	1 <sup>st</sup> Week af Jul'19	Digital status data of some feeders not reporting     Analog data of ICT-1 not reporting
8	Mawlai	CBs status to be rectified Additional Digital Card to be procured for isolators status	O&M	31 <sup>st</sup> May 2019	<ul> <li>Station under modernization and a new bay is also under construction which may take around 1 year.</li> <li>Shifting of panels is being done and new</li> </ul>

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SI. 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	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	ICT 2 whole bay not reporting     Needs to be checked and resolved	D&M	3 <sup>rd</sup> week of Jun'19	Bus 2 data and ICT 2 data not available     All digital status data not available
12	Nangalbibra	132 kV Nongstoin Digital data is under PSDF     ICT 2 is removed from service	D&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	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	Entire station's data not reporting     MePTCL to take up the issue with EE (T&T, Tura)
16	New Umtru	No issues	-	-	(rec
17	Rongkhon	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

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SI. No.	Name Of Stations	Reason for Non-availability of Real Time data	Category of Work to be executed	Target Date for rectification	Remarks
18	Umism 1	To be analysed by SLDC and reported/resolved subsequently (visit planned till 31" May 2019)		31 <sup>st</sup> May 2019	Visit till 31st May 19 for planning further action plan  Unit 2 & 3 data are not reporting  All digital data are not reporting
19	Umlam Z	Problem with DC supply of RTU (visit planned till 31 <sup>st</sup> May 2019)	N&90	31 <sup>st</sup> May 2019	Visit till 31st May 19 for planning further action plan
20	Umlam 3	<ul> <li>Additional Digital Card to be procured for capturing remaining Digital Inputs</li> <li>To be analysed by MePTCL and reported/resolved subsequently (visit planned till 31st May 2019)</li> </ul>	O&M	31 <sup>x</sup> May 2019	Visit till 31 <sup>st</sup> May'19 for planning further action plan Unit 1 under long outage
21	Umiam 4	<ul> <li>PLCC media Issue</li> <li>To be analysed by MePTCL and reported/resolved subsequently (visit planned till 01<sup>st</sup> week of Jun'19)</li> </ul>	Communication Media	To be decided	-
22	Umiam	<ul> <li>To be analysed by MePTCL and reported/resolved subsequently (visit planned till 01<sup>rd</sup> week of Jun'19)</li> </ul>	08M	To be decided	ICTs data is not reporting     Chemtrolsmake RTU installed.
23	Umtru	Additional Digital Card to be procured for capturing remaining Di inputs	O&M	To be decided	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.

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NERLDC mentioned that an executive from NERLDC will be deputed at SLDC from 27-28<sup>th</sup> 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.

SI. No	Stations	Database Comparison	SLD Comparison (Site and SLDC)	SLD Comparison (SLDC and RLDC)			
1	Cherrapunjee	No issues.	No Issues.	To be done ofter necessary			
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	Extre 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 SLDC: Mustern, 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	Mewlai	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: Mawia 2, Cherrapunjee Extra at SLDC: Future	To be done after necessory corrections at SLDC end.			
Mendipathar No issues.		Extra at site: Nangalbibra 2 Extra at SLDC: Agia	To be dane after necessary corrections at \$1.DC end.				

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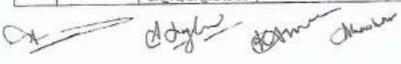
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Si. Name Of No. Stations		Database Comparison	SLD Comparison (5ite and 5LDC)	SLD Comparison (SLDC and RLDC)			
11	Mustem	No issues.	No issues,	To be done after necessary corrections at SLDC end.			
12	Nangalbibra	Transformer 2 is removed from SLDC database; To be removed NERLDC database	Updated site SLD not available	To be done after necessary corrections at SLDC end.			
13	Nehu	Bus 2 kV is not modelled in SLDC & NERLDC Database; No issues	Extra at site: Khleiriat Extra at SLDC: Mustem	To be done after necessary corrections at SLDC end.			
14	NEIGHRIMS	No issues.	No issues.	To be done after necessary corrections at SLDC end.			
15	Nongston	No issues.	No issues.	To be done after necessary corrections at SLDC end.			
16	New Umtru	No issues.	No Issues.	To be done after necessary corrections at SLDC and.			
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	To be done after necessary corrections at SLDC end.			
18	Umiam 1	No issues.	Site SLD not available	To be done after necessary corrections at SLDC end.			
19	Umlam 2	No Issues.	Site SLD not available	To be done after necessary corrections at SLDC end.			
20	Umlam 3	Bus 2 kV is not modelled in SLDC & NERLDC Database; No issues	Site SLD not available	To be done after necessary corrections at SLDC end.			
21	Umiam 4	Bus 2 kV is not modelled in SLDC &		To be done after necessary corrections at SLDC end.			
22	Bus 2 kV is not modelled in SLDC & NERLDC Database; No issues		No issues.	To be done after necessary corrections at SLDC end.			
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	To be done after necessary corrections at SLDC end.			







SI.	Name Of	Database	SLD Comparison (Site and SLDC)	SLD Comparison (SLDC and
No.	Stations	Comparison		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.

ANNEXURE 6.13

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S. No.	Link name	OPGW Stringing Status	End Equipment Status	Terminal Equipment related Remarks	Target as per 20t TCC Agenda
I.		Fiber Optic Expansion I	Projects		
		Central Sector			
1	132kV Melriat(PG) - Silchar (PG)	Complete	Complete	-	Completed
2	132kV Khandong - Haflong (PG)	Complete	1&C - Work in Progress		Sep-19
3	132kV Dimapur (PG) - Doyang (NEEPCO)	Complete	1&C - Work in Progress	-	Sep-19
4	132kV Doyang (NEEPCO) - Mokokchung (state)	Complete	I&C - Work in Progress		Sep-19
5	220kV Mokokchung (PG) - Mariani (PG)	Complete	I&C - Work in Progress		Sep-19
6	400kV Mariani (PG) - Kathalguri (NEEPCO)	Complete	I&C - Work in Progress	**	Sep-19
7	400kV Surjamani Nagar - (TSECL) - Palatana (OTPC)	Stringing Completed: 27.967/36.714 km.	I&C - Work in Progress	**	Oct-19
8	132kV Badarpur (PG) - Jiribam (PG)	Stringing Completed: 48/ 67.166 km.	I&C - Work in Progress	-	Sep-19
9	Bongaigaon (PG, 400kV) - 220kV Salakati - 220kV BTPS	0/ 4.5 km	1&C - Work in Progress		Oct-19
10	400kV Mirza (Azəra) - Byrnihat	0/ 47.208 km	I&C - Work in Progress		Oct-19
11	400kV Silchar - Palatana	kV Silchar - Palatana Stringing completed: 61.146/ 247.409 km. RoW Issues.			Dec-19
12	132kV Agartala (TSECL) - RC Nagar (NEEPCO)	Complete	Pending due to space constraints		Oct-19 Space is provided by NEEPCO in August only.
13	132kV Jiribam (PG) (Manipur) - Loktak (NHPC)	0/ 82.461 km	I&C - Work in Progress		Dec-19
14	132kV Loktak (NHPC) - Imphal (PG)	Complete #	I&C - Work in Progress	#	Sep-19
15	P.K. Bari (TSECL) - LILO of NETCL Belonia	0/ 10.441 km	I&C - Work in Progress	-	Dec-19
16	132kV Pare - Chimpu	0/ 31 km	I&C - Work in Progress	-	Dec-19
	301/d land 162 Special Control of the Control of th	Manipur State Sector			
1	132kV Yurembam - Yaingangpokpi	Complete #	I&C - Work in Progress	-	Sep-19
2	132kV Yaingangpokpi - Kongba	Complete #	1&C - Work in Progress	-	5ep-19
3	132kV Kongba - Kakching with LILO at Thoubal	Complete #	I&C - Work in Progress	-	Sep-19

ANNEXURE 613

		AINNEXURE (S)	,			
S. No.	Link name	OPGW Stringing Status	End Equipment Status	Terminal Equipment related Remarks	Target as per 20 TCC Agenda	
4	132kV Imphal (State) - Karong	45.4/ 60 km. Work in progress.	I&C - Work in Progress	••	Oct-19 ROW to be solved Matter intimated to State	
5	132kV Kakching - Churachandpur	19,60/ 38 km. Work in progress.	I&C - Work in Progress		Oct-19 Work delayed & to restart after collapsed tower restored by state	
6	132kV Loktak (NHPC) - Ningthoukhong	Complete #	I&C - Work in Progress		Sep-19	
7	132kV Yaingangpokpi - Hundung	14.5/ 30 km	1&C - Work in Progress		Sep-19	
8	132kV Kakching - Chandel	16.37/ 25 km	I&C - Work in Progress	_	Sep-19	
9	132kV Loktak (NHPC) - Rengpang	0/ 47 km	I&C - Work in Progress	-	Jan-20	
10	132kV Jiribam - Jiribam (State)	0/ 1 km	I&C - Work in Progress		Sep-19	
11	132kV Ningthoukhong - Churachandpur	16.80/ 32 km	I&C - Work in Progress		Oct-19 Work delayed & to restart after collapsed tower restored by state	
		Tripura State Sector				
1	132kV Agartala (TSECL) - Barumura (GTP)	Complete	Complete	( <del>**</del> 5)	Data and Voice reported dated 31 03-2019. SAT Pending, Oct'19.	
2	66kV 79 Tilla Grid (TSECL) - Badarghat	Complete	Complete		Data and Voice reported dated 31 03-2019. SAT Pending.	

ANNEXURE & 13

S. No.	Link name	OPGW Stringing Status	End Equipment Status	Terminal Equipment related Remarks	Target as per 20ti TCC Agenda
3	132kV Suramani Nagar (TSECL) - Budhung Nagar	Complete	Complete		Data and Voice reported dated 33 03-2019. SAT Pending, Oct'19.
4	132kV Agartala (TSECL) - SM Nagar (TSECL)	Complete	Complete	-	Data and Voice reported dated 31 03-2019. SAT Pending, Oct'19.
5	132kV Palatana (OTPC) - Udalpur (TSECL)	Complete	1&C - Work in Progress		Oct-19
6	132kV Udaipur (TSECL) - Rokhia (GTP)	Complete	1&C - Work in Progress	**	Oct-19
7	66kV Udaipur (TSECL) - Gumti HEP	Complete	I&C - Work in Progress	44	Oct-19
8	66kV Gumti HEP - Amarpur (TSECL)	Complete	I&C - Work in Progress		Oct-19
9	66kV Satchand (TSECL) - Sabroom (TSECL)	Complete	I&C - Work in Progress		Oct-19
10	132kV 79 tilla Grid (TSECL) - Dhalabil (TSECL)	Complete	I&C - Work in Progress	**	Oct-19
11	132kV Rokhia (GBPP) - Surjamani Nagar (TSECL)	Supply complete. Front not ready (TL under construction).			Link to be deleted. Supply material 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).		and .	Link to be deleted. Supply material to be handed over to TSECL. DOCO will be done with consent from TSECL.

ANNEXURE @ 13

S. No.	Link name	OPGW Stringing Status	End Equipment Status	Terminal Equipment related Remarks	Target as per 20t TCC Agenda
		Meghalaya State Secto	r		
1	132kV Nehu - Neigrihms	0/7.7 km	1&C - Work in Progress		Oct-19
2	132kV Khliehriat (PG) - Khlieriat (State)	Complete #	I&C - Work in Progress		Oct-19
3	132kV Khlieriat (State) - Myntdu Leshka HEP	24/24.932 km	I&C - Work in Progress		Oct-19
4	132kV Khlieriat (PG) - Lomshnong (S/C)	2/25.19 km	I&C - Work in Progress	-	Oct-19
		Nagaland State Sector			
1	132kv Kohima (132kV) - Kohima (220kV)	0/ 25 km	1&C - Work in Progress		Dec-19
2	132kV Kohima - Wokha	0/ 58 km	I&C - Work in Progress		Dec-19
3	132kV Doyang - (NEEPCO) - Sanis	0/ 10 km	I&C - Work in Progress		Dec-19
	7	Mizoram State Sector			
1	Aizawl - Zemabawk I	0/ 1 km	1&C - Work in Progress	**	Sep-19
II.		MW Vacation Sche	me		
1	132kV Silchar - Srikona	Complete	Complete		Data reporting.
2	132kV Mariani - Mariani	Complete	Complete		Completed
3	132kV Nirjuli - Ranganadi with Pare	RoW Issue	Supply and Installation over. SAT/ Commissioning pending.	MW vacation - Nirjuli, Ranganadi and Pare.	** 03 months after ROW is resolved
4	Imphal (PG) - Imphal (State)	Complete	I&C - Work in Progress	MW Vacation - Imphal (PG). FO Expansion - Imphal (State)	Oct-19
5	132kV LILO of alzawl - Zemabawk-II at Melriat Sub-station	Complete	Jul-19	MW Vacation - Melriat	Oct-19
6	132kV Melriat-Shimui	Complete	I&C - Work in Progress	MW Vacation - Melriat. FO Expansion - Shimui	Oct-19
7	132kV Mokokchung (PG) - Mokokchung (State)	Complete	I&C - Work in Progress	FO Expansion - Mokokchung (PG) and Mokokchung (State)	Oct-19
	Ranganadi - Gohpur (Part-I)	Complete	Complete		Completed
9	Ranganadi - Gohpur (Part-II)	Complete	Complete		Completed

ANNEXURE 8.13

S. No.	Link name	OPGW Stringing Status	End Equipment Status	Terminal Equipment related Remarks	Target as per 20th TCC Agenda	
10	Alzawl - Zemabawk II	Complete	I&C - Work in Progress	Mw Vacation - Aizawl FO Expansion - Zemabawk II	Oct-19	
11	Dimapur - Dimapur	Complete	I&C - Work in Progress	MW Vacation - Dimapur FO Expansion - Dimapur (State)	Oct-19	
12	132kV Ranganadi - Ziro	Complete	I&C - Work in Progress	MW Vacation - Ranganadi FO Expansion - Ziro	Oct-19	
13	132kV Lekhi-Itanagar/ Chimpu SLDC	Complete	1&C - Work in Progress	MW Vacation - Itanagar SLDC FO Expansion - Lekhi	Oct-19	
14	132kV LILO of Nirjuli-Ranganadi at Lekhi	RoW Issue	I&C - Work in Progress	MW Vacation - Nirjuli, Ranganadi FO Expansion - Lekhi	**03 months after ROW is resolved	
	BNC LILO-25 kM			-	Oct-19	

#### Note:

- Strike & Protest in Northeast due to GST Amendment bills.
- 2) Strike, Curfew in Arunachal Pradeh in the month of Feb\*19
- 3) Strike, Curfew in Meghalaya in the month of May'18-Jun'18
- 4) Floods in Assam & Manipur Jul'17
- 5) RoW issues (paddy field/ asking additional compensation)
- 6) Work connected to Trans line connected to Loktak was stopped two times due to miscreants. The same will be restarted soon
- 7) Recent flood in June & July19 across upper Assam ,Lower
- & South Assam has hindered movement of Fibcom team, Tejas team to Tripura, Meghalaya & AP. However teams have been re-mobilized

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

The meeting was attended by following executives:

PGCIL,	SLDC Nagaland, DoP Nagalanad
Shri P. Borah, DGM, 220 kV Dimapur(PG)	Er. Tiameren, EE(Communication), DoP Nagaland
	Er. Rokobeito, SDO
	Er. D Chakraborty, SDO(SLDC)
	Er. Tiakaba Yimchunger, JE(SLDC)
	Shri P. Borah, DGM,

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 12<sup>th</sup> July 19. And if the issue is on hardware part the same will be rectified by 26<sup>th</sup> 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 09<sup>th</sup> 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:

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### 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.
  - o 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 12<sup>th</sup> July'19.
- 132 kV Ganesh Nagar, RTU was commissioned. The integration of same will be done by 12<sup>th</sup> 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 08<sup>th</sup> July 19.

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							64/20/10	Vica I	To Be							Tentative Target

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### 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 Dimpaur (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.

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- 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: Alf 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.

Abouter States

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