### North Eastern Regional Power Committee

### Agenda For

### 8<sup>th</sup> NETeST Sub-Committee Meeting

Time of meeting: 10:00 Hrs.

Date of meeting: 18th January, 2018 (Thursday)

Venue : "Hotel Nandan", Guwahati.

#### A. CONFIRMATION OF MINUTES

#### CONFIRMATION OF MINUTES OF 7th NETeSTS Meeting held on 17.08.2017.

The minutes of 7<sup>th</sup> NETeST Meeting held on 17<sup>th</sup> August, 2017 at Guwahati were circulated by NERPC vide letter No. NERPC/SE (O)/TeST/2017/ dated 15<sup>th</sup> September, 2017.

The Sub-committee may confirm the minutes of 7<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	Present Status	Status as informed in 7th NETeST	Target Completion				
UP	UPGRADATION OF SLDCs							
1	Assam		Completed.	Completed. DG set-Target Nov17.				
2	Tripura		Completed. Space for DG set is to be assured by TSECL. Further, AMC issue to be addressed by TSECL in line with agreement & other SLDCs.	Completed. DG set-Target				
3	Meghalaya		Completed.	Completed. DG set-Target Nov17.				
4	NERLDC		Completed.	Completed. DG set-Target Nov17.				

	Agenda for 8th NETeST Meeting to be held on 18th January, 2018						
NEW SLDCs							
5	Manipur	Completed	Completed. DG set-Target Nov17.				
6	Nagaland	EMS SAT to be completed by 15th September 2017. Modification in DG set foundation to be done by DOP, Nagaland soon.	Completed.				
7	Mizoram	Completed. DG set placement area is not handed over by P&E Mizoram. VC unit is to be installed by GE.	DC oot Torget				
8	Ar. Pradesh	EMS SAT to be completed by 15th September 2017.	Completed. DG set-Target Nov17.				
9	B/UP NERLDC	Completed.	Completed. DG set-Target Nov17.				

Members may kindly intimate the status.

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

- A) POWERGRID: 5 RTUs not reporting out of 22 RTUs & data of 1 RTU is wrong.
  - a. KOPEX SAS line flow is OK but BUS data suspect.
  - b. Roing and Tezu RTUs do not report.
  - c. Kolasib out since 22.05.2017
  - d. Status of CS RTUs on single link & requirement of 2nd link back up/redundant channel. Lists as on 09/08/2017:
    - 1. 800 kV HVDC BNC (Only one channel made)
    - 2. 400 kV Misa (2 channels made but only 1 available)
    - 3. 400 kV Bongaigaon (Only one channel made)
    - 4. 400 kV Silchar (2 channels made but only 1 available)
    - 5. 220 kV Dimapur (two channels but only 1 available)
    - 6. 220 kV Salakati (Only one channel made)
    - 7. 132 kV Imphal (Only one channel made)
    - 8. 220 kV Mokokchung (Only one channel made)
    - 9. Ranganadi ISGS (2 channels but Only one available)
    - 10. 132 kV Itanagar (Only one channel made)
    - 11. Kathalguri, ISGS (only one channel available)
    - 12. Palatana, ISGS (Only one channel made)
    - 13. 132 kV Kumarghat (2 channels made but only 1 available)
    - 14. Loktak ISGS (2 channels made but only 1 available)
    - 15. Khandong, ISGS (2 channels made but only 1 available)16. Jiribam (2 channels made but only 1 available)
    - 17. Aizawl (only 1 available)
    - 18. Badarpur (2 channels made but only 1 available)
    - 19. Mariani (Only one channel made)

- e. CB status of the following RTUs are not reporting:
  - 1. Biswanath Chariali
  - 2. Bongaigaon
  - 3. Balipara
  - 4. Itanagar
  - 5. Kolasib
  - 6. Haflong

#### POWERGRID may kindly give the status.

#### B) NEEPCO:

- a. Ranganadi HEP is not reporting constantly and RTU needs to be restarted every day to get data.
- b. CB status of the following RTUs are not reporting:
  - 1. Ranganadi
  - 2. Kopili

In the last meeting, NEEPCO confirmed to solve the issues along with links in line with grid codes at the earliest.

#### NEEPCO may kindly intimate the current status.

#### C) AEGCL:

In the new system, only 30 RTUs are reporting partially against 62 RTUs. This creates loss of observability of NER Grid specifically during grid problems. Restoration of all the non-reporting RTUs needs urgent action. The same also highlighted in the weekly telemetry status reports but tangible solution is yet to be achieved.

#### AEGCL may kindly intimate the current status & reasons.

**D)** MePTCL/MeECL: 14 RTUs are reporting out of 23 RTUs.

Generating Stations: Dedicated voice communication is yet to be established for Leshka HEP.

Sub-Stations Not Reporting: Umiam, EPIP-I, Lumshnong, Cherrapunji.

#### MePTCL may kindly intimate the current status & actions taken.

**E) TSECL:** 7 RTUs are reporting out of 25 RTUs.

Non-reporting RTUs are given below:-

Generating Stations: Gumti (since Jan, 2011).

Sub-Stations: Amarpur, Badharghat, Belonia, Bokafa, Boxanagar, Dharmanagar, Dhalabil, Gamaitila, Gournagar, Kamalpur, OMPI, Rabindranagar, Sabroom, Satchand, Agartala, Ambassa, Budhjungnagar.

#### TSECL may kindly intimate the current status

**F)** Manipur: SLDC of Manipur was declared commission vide Ref No NERLDC/SL/SCADA-Upgrade-Vol-II/8566-68 dated 15.03.2017. However only 4 nos of RTUs are found to be reporting out of 11 RTUs as on 11/01/2018 and No ULDC Communication system is established till date.

Sub-Stations Not Reporting: Chandel, Churachandpur, Hundung, Karong, Kongba.

Manipur may kindly intimate the current status & actions taken.

**G) Mizoram:** SLDC is commissioned but VC, Voice Communication system yet to be established. SCADA/ EMS System commissioned on 10.04.2017. Status of RTUs included in the project needs to be updated.

Mizoram may kindly intimate the current status.

**H) AP and Nagaland:** may kindly intimate the current status SLDC establishment & RTU Status.

#### I) 132 KV BADARPUR-LUMSNONG telemetry LINK out:

BADARPUR S/S (Assam) telemetry data is not coming. Lumsnong S/S (Meghalaya) telemetry is not available.

Real time drawal for Assam and Meghalaya affected due to non-telemetry problem. Real time Grid Management process hampered.

Status in both the S/S may be intimated at the earliest.

## A.3 EARLY COMPLETION OF OPGW BASED COMMUNICATION SYSTEM IN INTRASTATE GRID OF MANIPUR IN THE INTEREST OF NER GRID SECURITY AND SMOOTH POWER SUPPLY MANAGEMENT IN MANIPUR:

Power Grid, in pursuance of 14th NERPC Meeting, established SLDC Manipur with 11 nos. of RTUs in the existing 132 kV sub-stations – nine for State sector and 2 for Central sector - and its commercial operation was declared on 9/11/2016. Due to absence of OPGW connectivity and installation of communication equipment in the aforesaid 11 nos. of nodes, SCADA and voice connectivity from the nodes could not be acquired to the main control center at Yurembam. Currently SLDC at Yurembam is operated with data acquired from few sub-stations through PLCC links only. This has defeated the very purpose of establishment of SLDC for real time scheduling and dispatch of electricity in the intra-state system for ensuring grid security.

During the 18th TCC meeting, MD, MSPCL informed that Intra-state communication is under focus of government and it is being monitored very closely. He stated that though quantity modification was done in 17th TCC/RPC (held on 04.10.2016), work has not yet been completed.

ED(LD&C), POWERGRID informed that materials have been inspected at China and by end of Nov'17, materials would be delivered. GM, NERTS informed that target time for completion as per 6th NETeST meeting of NERPC is November, 2018.

Regarding the security issues raised by POWERGRID; MD, MSPCL informed that work front would be problem free. GM, MSPCL informed that out of 11RTUs only 4/5 reporting, inspite of the fact that they were supposed to report through PLCC.

GM, NERTS stated that exact problem is to be identified. The TCC forum noted the erection& commissioning to be completed by Nov'2018 and any ROW issue to be sorted out by the state.

MSPCL, NERLDC may kindly intimate the status.

#### B. NEW ITEMS

#### B.1 <u>Strengthening of PLCC System by NER States:</u>

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

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

During 7th NETeST meeting, AEGCL has informed that PLCC is good alternative for data only in case there is less number of hops in the PLCC network but with increasing number of hops it is always difficult to maintain data and speech.

EE, DoP Nagaland enquired whether PLCC upgradation can be done through PSDF funding.

SE, NERPC informed the forum that PLCC can be included in R&M work through PSDF funding.

Members may like to discuss.

#### B.2 MW Vacation Project:

During 7th NETeST meeting, Manager, PGCIL informed the forum that the project will be completed by 2017. OPGW will be completed by October, 2017 (including rectification, new work part Agia-BTPS) and equipment commissioning by December, 2017

AGM, AEGCL requested NERTS to inform them of delay if any in the committed schedule via email or letters.

AEGCL, POWERGRID may kindly intimate the status.

### B.3 OPGW link between RHEP Power house and Biswanath Chariali/ Nirjuli substation required.

The RTU of Ranganadi Power House is working properly at Ranganadi. The Link with SCADA at RLDC is disrupting many times due to weak link with Ranganadi. OPGW link may be established between Ranganadi and Biswanath Chariali/ Nirjuli.

During 7th NETeST meeting, Manager NERTS informed the forum that the link to Ranganadi will be connected via new route of Nirjuli Pare and will be completed by June, 2018.

NEEPCO & NERTS may please deliberate.

#### B.4 PMU Display availability at SLDC:

Due to non-availability of separate communication links, PMU Displays are not available at all the SLDCs. A workaround may be that of using one of the SCADA

(ICCP) links for both ICCP a well as PMU display. In this case the Internal Firewall of RLDC & SLDC need to include one additional policy for making through the PMU display traffic. As such, no security violation is envisaged as only HTTP port of PMU Historian need to be forwarded.

During 7th NETeST meeting, the forum decided that NERTS, NERLDC and AEGCL will jointly explore the possibility of providing communication channel for PMU display to SLDC by exploring the unused bandwidth within the existing network.

NERLDC & NERTS may please deliberate.

#### **B.5 Security Arrangement for SCADA System:**

Presently, the SCADA/EMS Upgrade Project is running through its final phase & all state SLDCs except Arunachal & Nagaland are integrated with NERLDC. This network is also connected to rest of the RLDCs via NLDC. In this scenario, any security incident/ intrusion in one system will affect other connected systems also. Therefore hardening of the security of SCADA/EMS system is a necessity. The requirement may be defined in Two Parts: Cyber Security & Physical Security.

Cyber Security may be implemented by proper configuration of the security features available in the SCADA/EMS system viz. a uniform and effective Cyber Security Policy across the SLDCs & NERLDC, Firewall policies allowing only necessary traffic & discarding others, disallowing Remote Access of the system unless authorized by the system owner, regular check of the system for Updates/ Patches, proper maintenance of Patch Management server etc.

Physical Security is necessary to prevent mishandling/ misconfiguration - intentional or accidental, unauthorized removal of asset from the system, connecting/ disconnecting external devices like laptop, pen drive, dongle and the likes unless unavoidable etc.. One effective way of implementation of physical security is Installation of CCTV Camera/ Surveillance System at strategic locations like Control Room Entry & Server Room Entry, Inside Control Room & Server Room, UPS/ Battery Room, DG Set etc.

During 7th NETeST meeting, Asst. GM NERLDC informed the forum that as per CERC regulation security audit of SLDC needs to be carried out by third Party. He requested all SLDC to take adequate security measures to safeguard the assets of SLDCs. He also suggested SLDCs to take appropriate insurance against fire and theft for their assets.

Members may please discuss.

#### B.6 Status of non- reporting RTUs:

SCADA data from Kolasib are out since long (22.05.17) due to which Grid management activity is severely affected.

Ranganadi RTU does not report continuously, RTU needs to be restarted every day to get data. Team needs to be formed involving PG and RHEP and solve the problem within fixed time.

132 kV ITANAGAR: Effect: Realtime drawal of AP is not coming. Visibility of AP grid lost. Communication link problem.

Tezu, Roing and Melrihat Data either does not report or fluctuate frequently due to unstable GPRS connection. Dual redundancy is to be implemented.

Status of RTU replacement and procurement of new RTUs may be intimated.

Members may please intimate the latest status.

# B.7 <u>Implementation of Central Electricity Regulatory Commission</u> (Communication System for inter-State transmission of electricity) Regulations, 2017:

As per section 10 of these regulations, all users of CTU, NLDC, RLDCs, SLDCs, STUs shall maintain the communication channel availability at 99.9% annually: Provided that with back up communication system, the availability of communication system should be 100%.

Further, as per clause 7.3(ii) of these regulations, The RPC Secretariat shall certify the availability of communication equipment for CTU, ISGS, RLDCs, NLDC, SLDCs based on the data furnished by RLDC.

In the above context followings are to be submitted by NERTS, POWERGRID and other STUs:

- 1. List of links for which CoD has been declared till date &
- 2. The links for which CoD is likely to be declared in near future.

In this regard letters vide Ref: NERLDC/ SL/Telecom\9908 dtd. 29.08.17 and subsequent reminder letter vide Ref: NERLDC/SL/TELECOM/10823 dtd. 03.01.2017 was issued to NERTS, POWERGRID for furnishing the list of communication links. However, no data have been furnished by POWERGRID till date.

Members may please discuss.

## B.8 <u>Furnishing of detail parameters for the On-going Projects likely to be commissioned within 6 months by Constituents:</u>

This is for kind information to constituents that before commissioning any new conditions projects, the connectivity pertaining to Telemetry communication systems in terms of clause 4.6.2 of IEGC 2010 read with Clause 6(3) of CEA (Technical Standards for connectivity to the Grid) Regulations, 2007 are to be fully met and the real time data of the station parameters be made available at the control centers along with voice communication systems at the time of commissioning. Moreover, it may also kindly be noted that as per recommendations of the Committee on Grid disturbance" Report on the Enquiry Committee on Grid Disturbance in Northern Region on 30th July 2012 and Northern, Eastern & North Eastern Region on 31st July 2012" dated 16.08.2012, clause (xiv) which is reproduced as follows -"Proper telemetry and communication should be ensured to Load Despatch Centers from various transmission elements and generating stations. No new transmission element/generation should be commissioned without the requisite telemetry facilities".

In view of the above, the following information/ parameters may kindly be furnished to NERLDC in advance for making the platform for Database in SCADA:

- 1. Single Line Diagram of the Power Station/Switchyards.
- 2. Data List of the Station (to check the signals of both Analog & Digital).
- 3. Wiring diagram of the Station (to check the wiring done at RTU end).
- 4. Generator Parameter details, Generator Transformer parameters.
- 5. Line and ICT details. Any additional requirement to be intimated

Constituents to submit detail parameters projects well in advance under their jurisdictions & fulfill the condition of IEGC.

## B.9 Requirement of additional PMU at CS Power Station and SS Power Station of size more than 25 MW for monitoring of parameters of generators:

It is required to install additional PMUs at CS Power Station and SS Power Station Generators of size more than 25 MW for better visibility of system parameters on real time. This will also help in monitoring the oscillations in the system, identifying the machine which is causing oscillation and post disturbance analysis.

For this requirement, the following PMUs are to be installed.

- 1. AGBPP (9 nos.)
- 2. AGTCCPP (6 nos.)
- 3. Ranganadi (3 nos.)
- 4. Doyang (3 nos.)
- 5. Khandong (3 nos.)
- 6. Kopili (4 nos.)
- 7. Monarchak (2 no.)
- 8. Loktak (3 nos.)
- 9. Palatana (4 nos.)
- 10. BgTPP (3 nos.)
- 11. Baramura (2 nos.)
- 12. Rokhia (3 nos.)
- 13. Namrup (2 nos.)
- 14. Lakwa (8 nos.)
- 15. Langpi HEP (2 nos.)
- 16. Umiam Stage I (4 nos.)
- 17. Umiam Stage III (2 nos.)
- 18. Umiam Stage IV (2 nos.)
- 19. Myntdu Leshka (3 nos.)
- 20. New Umtru (2 nos.)

During 7th NETeST meeting, the forum decided that NERLDC will write a letter to NERTS for making provision for installation of new PMUs. NERTS intimated that the copy of letter may also be forwarded to GM, CC, LD&C.

Members may please discuss.

#### B.10 Optical Fiber connectivity for AGC project expansion:

NTPC Dadri Stg-II was selected for the first project of Automatic Generation Control (AGC) in India. A mock test was conducted on 29th June 2017 from 1730 Hrs to 1910 Hrs and the mock test yielded desired/expected results.

Now, as a part of the AGC project expansion, a report needs to be filed with CERC, for which actual distance between the nearest communication node (equipment where the existing fiber optical cable terminates) and the unit control room (approximate distance from CR Panel) needs to be ascertained.

As per instruction from NLDC, NERLDC requested all ISGS to furnish the mentioned data. It is observed that optical fiber connectivity is there with few ISGS and details of those stations are as follows:

SI. No.	Name of ISGS	Nearest Available Optical Node	Distance
1	AGBPP	Misa (PG)	383.4 km
2	AGTCCPP GTG Control Room	AGTPP (NEEPCO)	50 m
3	AGTCCPP STG Control Room	AGTPP (NEEPCO)	200 m
4	Ranganadi HEP	Balipara (PG)	191 km
5	Kopili HEP	Kopili (NEEPCO)	30 m
6	Kopili Stage 2 HEP	Khandong (NEEPCO)	15-20 m
7	Khandong HEP	Khandong (NEEPCO)	15-20 m
8	Palatana	Silchar (PG)	247 km
9	Loktak HEP	Imphal (PG)	35 km
10	Doyang HEP	Dimapur (PG)	92.5 km
11	BTPS (NTPC)	Salakati (PG)	3.5 km

During 7th NETeST meeting, Asst. GM NERLDC informed the forum that NERLDC has recommended BTPS for AGC pilot project. He requested NERTS to speed up the connectivity of BTPS in the NER-FO expansion project as fiber connectivity is required for implementation of AGC.

#### Members may please discuss.

#### B.11 Optical Fibre connectivity for installation of Line Differential Protection:

Optical Fibre connectivity of a line is essential for functioning of Line Differential Protection.

In 47th PCCM, it was decided that all utilities shall identify the short lines for installation of Line Differential Protection by 31st Jul'17.

Utilities shall furnish the list of short lines identified for installation of Line Differential Protection to NERPC/NERLDC along with availability of OPGW in the identified short lines (as per Annexure-I). Forum agreed that funding for installation of Line Differential Protection & OPGW can be awarded from PSDF for state utilities and PSUs may include these expenses in PoC Charges.

The list of lines along with availability of OPGW link not yet furnished by any utilities.

#### Members may please discuss.

#### B.12 Dedicated voice communication:

Dedicated voice communication and availability is one of the key requirements for efficient grid management. But it is observed that whenever we try to talk to SLDCs always it shows busy. We have intimated POWERGRID to resolve this problem but still it is not solved but still it is pending.

Most of the PG stations are connected through only one dedicated voice communication. Minimum two no of dedicated link needs to be done at the earliest. Forum may discuss and time bound target may be fixed to fulfil the above requirement. Also 400 KV stations, HVDC station, SLDCs need 4 no of dedicated voice communication.

Following S/S either does not have link or links are not working.

- a. PALATANA (Biggest Gen in NER)-No dedicated voice link.
- b. 400 kV SILCHAR PG Station -No dedicated voice link.
- c. SM Nagar (International link)-No dedicated voice communication with RLDC.
- d. MONARCHAK Gen: No dedicated voice link with RLDC.
- e. SALAKATI (Inter Regional PG station) No dedicated voice link.
- f. 400 kV BYRNIHAT/KILLING: No dedicated voice link with RLDC/SLDC.
- g. 400 kV Azara: No dedicated voice link with RLDC.
- h. NTPC, BgTPP Even no BSNL or Mobile
- i. Zero, Roing, Tezu and Pasighat

Following S/S VOIPs are not working.

- 1. Itanagar-23640151
- 2. Jiribam-23640130
- 3. Kathalguri-23640154
- 4. Ranganadi-23640119
- 5. Kolasib-23640111
- 6. Doyang 23640120 Low voice quality issue
- 7. Mariani (POWERGRID),
- 8. Mokokchung
- 9. Kumarghat
- 10. Khandong.
- 11. Kohima

Members may please discuss.

#### B.13 ISTS/ISGS CB status out and SOE Problem:

CB status of ISTS and ISGS are out or wrong since long and due to which Sequence of Events report is not indicating correct picture of the Grid. In case of any tripping/disturbance SOE is the main report through which we can analyse any event but as CB status is not updating correctly SOE is not giving correct picture. So POWERGRID/NEEPCO/LOKTAK is requested to look into it and restore all CB status at the earliest.

It is very important to update SOE for proper grid visualization but most of unit outage or line tripping SOE are not updating. Most importantly disturbance/incidence analysis from SOE is not currently possible due to so much misleading information. In some cases misleading information are coming in SOE

(say RCN unit 3 is coming as U1 out, same in Salakati, Ranganadi and Balipara element outage). So all element outages, SOE needs to be checked. For an example one disturbance may be taken as example and may be matched with SOE available to know the mismatch available.

Members may please discuss.

#### B.14 MW and MVAR data validation:

For correctness of real time data ie MW/MVAR/KV/FREQUENCY validation is required between the real time system and site in every quarter and report has to be maintained for verification. But in absence of this validation process, MW data, MVAR data, Voltage data are not getting reported correctly and ultimately misleading real time grid managers.

Members may please discuss.

#### B.15 Status of Optical fiber works:

Optical fibre works in NER are going very slow, for example optical fibre works at Balipara-Ranganadi link, Ranganadi-Lekhi link, Ranganadi-Ziro link etc. This delay results in non-availability real time data from Ranganadi, Nirjuli & Ziro at NERLDC.

Availability of real time data at control centres is critical in real time grid operation as well as post disturbance analysis. Many grid disturbances are not being able to analyse properly as a result of non-reporting of RTUs due to delay in completion of optical fibre works.

NERTS may please intimate the status of on-going optical fiber works.

# B.16 <u>Maintenance & Support Service under "Replacement / Up-Gradation of existing SCADA/ EMS System of NERLDC and SLDCs of North-Eastern Region" project by GE T&D India:</u>

As per Technical specification of 'Maintenance & Support services' clause 4.2.1: "At least one software engineer & one hardware engineer having expertise in SCADA/EMS system shall be available during the standard hours of service at each main control centre. The timings for emergency support would be 24 hours a day, 7days a week throughout the year.

The support personnel so deployed shall be qualified personnel having at least 5 years of experience in the delivered SCADA/EMS system. The owner can ask the contractor to replace the personnel deployed for maintenance support if his performance is not found to be satisfactory."

Performances of the personnel presently deployed in NER are not satisfactory.

Members may please discuss.

#### B.17 Defective VC Equipment:

The VC equipment installed at SLDC, Manipur is non- functional since 5<sup>th</sup> April, 2017. SLDC, Manipur has made several complaints regarding the issue to GE Energy Connections through e-mails and also the matter was even discussed with the

project manager in the 6<sup>th</sup> NETeST meeting. But till date no appropriate response has been received from GE Energy Connections. The forum may please look into the matter for rectification of the VC equipment as soon as possible.

During 7th NETeST meeting, Project Manager, GE informed the forum that GE was facing issue with the vendor. The old vendor refused to do the work. The have contracted new vendor but work could not be started due to GST. He assured the forum that they will visit Nagaland SLDC and then Manipur SLDC VC next week and will be rectified without any further delay.

#### MSPCL may please deliberate.

#### **B.18 Communication of Pare HEP:**

You are kindly aware that 110 MW Pare HEP of NEEPCO is in the last stage of commissioning and it is expected that 1st unit shall be ready for test synchronization by 1st week of March '2018. The LILO of existing Nirjuli-Ranganadi 132 kV line at Pare is part of the approve evacuation scheme for the Project. The LILO part is expected to be ready for charging by mid of February 2018. In this context, following is placed before you for kind perusal:

- a) Shut program of the Nirjuli-Ranganadi 132 kV line for conversion shall be intimated to you shortly.
- b) As per decision of the meeting held on 10.05.2016 at NERTS, two nos. new PLCC panels have been procured and one installed at Pare for Pare-Ranganadi line and other panel shall be installed at Ranganadi end immediately after shifting of existing panel of Nirjuli-Ranganadi 132 kV line. The existing PLCC panel at Ranganadi end of Nirjuli-Ranganadi 132 kV line shall be shifted to Pare for Pare-Nirjuli line.
- c) During the process of shifting and re-installation of PLCC panel from Ranganadi to Pare as mentioned at (b), the communication & data link between Ranganadi and Nirjuli shall be disturbed and the entire process is expected to be completed within 5-6 days' time. It is expected that shifting of PLCC panels work shall be taken up during 2nd week of February '2018.

In view of the above, I would like to request you to kindly advise your concern Officer to finalize the modalities how to proceed to complete the work without much disturbance to avoid inconvenience for real time grid operation. Completion of the shifting and re-installation of PLCC panel works is highly solicited.

#### Any other item:

#### Date and Venue of next NETeST

It is proposed to hold the 9<sup>th</sup> NETeST meeting of NERPC on second week of March, 2018. The date & exact venue will be intimated in due course.

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