North Eastern Regional Power Committee

Agenda For

177th OCC Sub-Committee Meeting

Time of meeting : 10:30 Hrs.

Date of meeting : 22nd April, 2021 (Thursday)

Venue : "NERPC Conference Hall", Shillong.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 176th MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 176th meeting of Operation Sub-committee held on 22nd March, 2021 at Shillong were circulated vide letter No. NERPC/SE (O)/OCC/2020/3052-3089 dated 05th April, 2021.

The Sub-committee may confirm the minutes of 176th OCCM of NERPC with suitable amendments as no other comments/observations were received from the constituents.

ACTION TAKEN -ITEMS

B.1. ACTION TAKEN:

1. IMPLEMENTATION OF PROJECTS FUNDED FROM PSDF:

The status as informed in 176th OCC:

State	R&U scheme	ADMS	Capacitor Installation	SAMAST**	Line Differential Protection
Ar. Pradesh	Package-I (Diagnostic tools) Complete in all respects. P-II (for PLCC & communication) LOA issued. Requisition for 30% to be sent immediately. P-III (Substation equipment) NIT issued Station-wise status to be updated	Work completed in all respects. Final 10% to be disbursed.	-	TESG approved.	-
Nagaland	Completed in all respects. 10% requisition to be sent alongwith UC.	Work completed in all respects. Final 10% to be disbursed.	-	TESG approved	Lines identified. Under DPR preparation stage.

Mizoram	Completed. 10% remaining claim to be submitted ASAP.	Work completed in all respects. Final 10% to be disbursed.	To reply to TESG queries.	TESG approved	DPR submitted.
Manipur	Package-II: completed Package-I: WIP Delayed due to COVID situation Station-wise status to be updated.	Work completed in all respects. Final 10% to be disbursed.	LOA issued. Requisition to be sent for first tranche.	TESG approved	Lines identified. LDP for 132kV Imphal-Imphal and 132kV Jiribm-Jiribam proposed. Under DPR preparation stage.
	33kV System Integration with SLDC	In tendering stage			
	Reliable Communications for grid connectivity	In tendering stage			
Tripura	Work completed. 10% remaining claim to be sent ASAP. Station wise status to be updated.	60% requisition will be submitted by 31st March'21.	Study results to be submitted alongwith DPR	TESG approved	Only single line 132kV 79Tilla to Budhjangnagar. DPR to be prepared.
Assam	LOA issued. WIP, delayed due to COVID situation Station-wise status to be submitted.	Work completed in all respects. Final 10% to be disbursed.	-	LoA issued	Lines identified. Under DPR preparation stage.
Meghalaya	MePTCL Completed in all respects. MePGCL – completed in all respects.	Project complete in all respects.	-	LoA issued.	WIP. Delayed due to COVID situation

All state utilities are requested to furnish latest status station-wise as per format by first week of every month on regular basis to Member Convener, PSDF Project Monitoring Group (AGM, NLDC, POSOCO) with a copy to NPC & NERPC. The LOAs of R&M Scheme are to be furnished to NERLDC/NERPC regularly.

States may please intimate the latest status.

B.2. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING MARCH, 2020

NERLDC shall present the operational performance for the month of March,2020.

C. ITEMS FOR DISCUSSION

C.1 Generation Planning (ongoing and planned outages)

a. Present per day MU and projected number of days of operation.

Plants	Reservoirs level in meter	MU content	Present DC (in MU)	No of days as per current generation
Khandong + Kopili stg II			**0.151**	
Kopili			**0**	Will be "0" until further intimation.
Doyang			**0.623**	
Loktak			**0.39**	

The outage of other generating stations may be approved considering the present water levels in reservoirs and long term outage of Kopili HEP.

The Committee may discuss and approve the proposed shutdown by Generating Stations as given in Annexure – D.2 which is available in NERPC website.

C.2 Outage Planning Transmission elements

It was agreed in the 99th OCC meeting that shutdown will be availed only after approval is given by the OCC forum. It was also agreed that deferment/revision of outages elements other than already approved in OCC will be henceforth put/displayed in the website of NERPC (**under Operational Activities/OCC Approved shutdown**) as per CERC regulations/ CEA guidelines etc for ensuring smooth & secure grid operation.

Furnishing request of shut down of the element, which was approved by NERPC, by Indenting Agency (ISTS licensees/STUs/Generating Companies) to NERLDC: Planned shutdown approved by NERPC shall be considered for implementation by NERLDC on D-3 basis. If an outage is to be availed on say 10th of the month, the shutdown availing agency would reconfirm to NERLDC on 7th of the month by 10:00 Hr. This practice is necessary to ensure optimal capacity utilization and the time required for associated system study/coordination by/amongst RLDC/NLDC.

It was decided in the previous OCCM that shutdown would be granted from the 1st day of the following calendar month to the 30th/31st day of the same month.

The sub-Committee may kindly discuss and approve the transmission line outages proposed by Constituents for 01st May, 2021 to 31st May, 2021 which is available in the website of NERPC.

C.3 Estimated Transmission Availability Certificate (TAC) for the month of March,2020:

NETC and POWERGRID have submitted the outage data for the month of March, 2020. So the attributability of outage of the said elements may please be finalized.

Members may please discuss.

C.4 Charging of 132kV Sihhmui S/S and related issues:

Decisions as per deliberation in previous meeting(s):

- Present condition of idle charging from Melriat end as anti-theft measure to remain in place.

- NERTS shall apply for the FTC of bays pertaining to 132kV Melriat-Sihhmui D/C at Sihhmui and P&ED Mizoram shall apply for FTC of 132kV Sihhmui Bus and ICT simultaneously, so that 132kV Melriat-Sihhmui and 132kV Sihhmui S/Sn can be charged at the same time.

- NERTS to assist P&ED Mizoram for appeal process so that no burden is passed onto the state.

Members may please discuss.

C.5 Charging of 33kV Khupi-Kimi line at 132kV:

Director(O&P), NERPC stated that the inspection of line and Protection Audit of 132kV Khupi S/Sn would be carried out in Apr-May'21. He requested co-operation of NEEPCO, DoP Ar. Pradesh and NERTS for the same.

Members may please discuss.

C.6 Review of Automatic Under Frequency Load Shedding Relay Settings in NER:

In the 19th NERPC Meeting held on 28th& 29th Nov'18, it was approved to revise the stages of the operation of UFR from existing frequency band of 49.2 – 48.6 Hz (100MW) to 49.4 – 48.8Hz (170MW) in four stages viz., 49.4 Hz, 49.2 Hz, 49.0 Hz, 48.8 Hz. Also, the issue was deliberated, and constituents agreed for implementation of revised band of frequency and quantum of load shedding during the 148th OCC Meeting. Constituents are requested to update the latest status on the same.

Status for (i)Identification of feeders for additional installation of UFRs, (ii) Review the existing locations of UFR installation w.r.t. loading and connectivity as per 175th OCC meeting:

Name of the utility	Time period
DoP Ar. Pradesh	By Mar'21
Assam	Submitted
Manipur	By Mar'21
Meghalaya	By Apr'21
Mizoram	By Mar'21
Nagaland	Submitted
Tripura	By Mar'21**

Members may please discuss.

C.7 Mobile Substation for Emergency Restoration of EHV system in NER:

In NER, it has been experienced that there are outages of substation/Generating Station/EHV element /s due to natural calamities. Recent such example is outage of generating station namely Kopili HEP, NEEPCO due to fresh flood/failure of penstock.

Further, for restoration of EHV systems in time, insurmountable constraints are faced by utilities like tough terrain, poor response from vendors for supply & services in NER especially in remote locations within stipulated period.

Hence it is suggested that mobile substation may be kept as regional spare for critical central sector stations where the affected station (suffering outage) in part can be bypassed under urgency and Incoming & Outgoing TLs be directly connected/terminated to TL Towers through the mobile station solution) till the main station is restored to its shape. The Mobile substation with bay modules will have the following facilities for emergency restoration of bays:

a) 1 no. 220kV Bay with all EHV equipment & protection system
b) 1no. 132kV Bay with all EHV equipment & protection system

Tentative Cost estimate is Rs.8.42 Crore (apx) excluding taxes & duties and F&I. The matter was discussed in 168th OCC where POWERGRID gave a presentation.

NERLDC & NERPC also stressed the need for mobile substation

The 21st TCC/RPC approved the mobile bays.
In 176th OCC meeting Manager, NERTS intimated that offer has been received from ABB, however, detailed estimate has not been submitted. He also informed that offers from other vendors are still awaited.

Member Secretary, NERPC stated that DPR with tentative cost has to be submitted to PSDF at the earliest in order to restore Misa-Kopili-Khandong link before next lean hydro season.

Members may please discuss.

C.8 Availing of Palatana Merchant Power by beneficiaries:

In the 21st TCC/NERPC meeting all the states agreed to consider availing Merchant Power of Palatana as part of their firm share. In case some decided not to avail the same the other states would avail the corresponding share as per formula decided by MoP.
Status as per 176th OCC meeting:

Name of the state beneficiary	Whether merchant power would be availed as firm share?
Arunachal Pradesh	Under examination by the government
Assam	NO
Manipur	NO
Meghalaya	NO
Mizoram	YES
Nagaland	YES. Beyond 25MW to be decided upon by the government.
Tripura	Under examination by the government

Members may please discuss.

C.9 Monitoring of Performance of TARA devices:

In 176th OCC the SLDCs informed the following status w.r.t reporting of TARA devices:

Name of the state/utility	Status
MePTCL	No TARA device reporting. State has to bear the recurring cost of GPRS unnecessarily.
TSECL	None out of the 8 installed are reporting. 2 additional TARA devices are required and 2 devices for 132kV Silchar-PKBari D/C have to be shifted upon upgradation of the line.

The forum requested NERPC to ensure the presence of CDAC in the next OCC meeting and also requested all the utilities to present the latest status of TARA devices.

Members may please discuss.

AGENDA ITEMS FROM NERPC:

C.10 NIT for Meter, AMR part of SAMAST for five states:

PSDF has approved the SAMAST proposal for five states of Arunachal Pradesh, Manipur, Mizoram, Nagaland & Tripura. The NIT for SAMAST software solution and IT Infrastructure at SLDC was floated for the seven states on 12.12.2019 and subsequently evaluated. As per 19th TCC/NERPC approval and Hon'ble Chairman, NERPC approval common tendering shall have to be done for Meter, AMR portion of the five states. Respective nodal officers may please confirm the NIT on similar lines of that of Assam, Meghalaya.

Members may please discuss.

AGENDA ITEMS FROM NERLDC:

C.11 Non-Intimation to NERLDC regarding Generation Reduction:

It was observed that Monarchak Generation was taken under shutdown at around 08:00 Hrs of 05-04-2021 without prior intimation to NERLDC. It may be noted that prior to the shutdown, Monarchak generation was around 100 MW. This was in direct violation of IEGC clause 5.2 (j) which states that "Except under an emergency, or to prevent an imminent damage to a costly equipment, no User shall suddenly reduce his generating unit output by more than 20 MW in case of NER without prior intimation to and consent of the RLDC."

NERLDC may please deliberate.

C.12 Implementation of SPS for Bus Reactors at 400kV PKBari S/Sn:

Due to the integration of new 400 kV lines in Southern NER grid, the reliability of the Grid has increased manifold. However, at off-peak hours, due to the presence of lightly loaded lines, Voltage in the southern pocket is observed to be in the higher side. Due to the above situation, 400 kV S lines are opened to control voltage. This in turn reduces the reliability of the grid and hence is undesirable. In order to avoid this Bus Reactors at PK Bari play an important role. Therefore, it is requested to expedite the implementation of SPS scheme at PK Bari (ST).

NERLDC may please deliberate.

C.13 Regarding switching off SPS-4 for Bangladesh at S.M Nagar end:

On multiple occasions, it was observed that switching of SPS-4 related to tripping of 132 kV SM Nagar – Comilla D/C at SM Nagar (TSECL) end was delayed by 2 to 3 hrs. This kind of delay may lead to grid instability. TSECL is requested to immediately take action in this regard.

NERLDC may please deliberate.

C.14 Incomplete Dia operation during S/D of Palatana modules:

It has been observed that during the Planned Shutdown of Palatana Modules, OTPC keeps dia incomplete for the module which is under Shutdown. This results in insecure, unreliable operation and N-1 security violation as the outage of any main bay will lead to outage of that particular element. Moreover, this may affect the load fed to Bangladesh (Comilla) due to operation of SPS related to Bangladesh.

NERLDC may please deliberate.

C.15 Blackout of 220/132kV Tinsukia and radially connected S/Sn of Assam on 08th April, 2021:

It was observed that at around 11:30 hrs of 08.04.21, 220 kV AGBPP - Tinsukia D/C tripped. At the same time, 220 kV Tinsukia Bus I and Bus II also tripped causing blackout at 220/132 kV Tinsukia S/S of Assam and radially fed substations of 132 kV Rupai, Margherita, Dibrugarh, Behating and Bordubi.

It was informed that LBB operated for 220 kV AGBPP-Tinsukia Line 2 but the tripping of all the feeders connected to both the buses is unwarranted. AEGCL may clarify the sequence of events and reasons leading to this tripping so that a proper analysis can be made.

NERLDC may please deliberate.

C.16 Renewal of Bangladesh power supply contract:

It was in discussion whether Comilla load of Bangladesh will be fed through Surajmani Nagar (TSECL) or Surajmani Nagar (ISTS) Substation of India. As, NLDC has also requested for the status of the contract of power supply to Bangladesh past March 2021, hence TSECL is requested for the same.

NERLDC may please deliberate.

C.17 Load reduction of Tripura LILO of 132kV Budhjungnagar – SMNagar (TSECL) due to overloading of 132kV SMNagar - SMNagar:

High loading is being observed on regular basis in 132 kV SM Nagar (TSECL) - SM Nagar(ISTS) line for the past few months thus violating N-1 criteria. Tripura should either restrict loador make a LILO of other ckt. of 132 kV Budhjungnagar – SM Nagar (TSECL) at 400 kV SM Nagar (ISTS) S/S, pending decision of HTLS scheme.

NERLDC may please deliberate.

C.18 Optimization of AGBPP generation:

AGBPP low gas availability since 09:30 Hrs of 06.04.2021 has not been intimated to NERLDC. As per Day Ahead Declaration, generation of around 220 MW was scheduled but the actual value of generation in real time was around 110 MW which led to system constraint and high loading in Assam Power system.

Hence, AGBPP may plan the gas availability accordingly and also stick to their declared schedule to prevent over loading issues.

NERLDC may please deliberate.

C.19 Encouraging participation in the 9th International Conference on Power Systems (ICPS 2021):

The 9th International Conference on Power Systems,2021 (ICPS 2021) continues a series of the biennial conference and will be held at Indian Institute of Technology (IIT Kharagpur), Kharagpur, West Bengal, India from 16th-18th December 2021. It will be jointly organized by the Department of Electrical Engineering and the School of Energy Science and Engineering. The theme is "Developments towards Inclusive growth for Sustainable and Resilient Grid". NERLDC requests interested officials from all the NER utilities to participate in the conference. The brochure of ICPS 2021 is attached for reference.

NERLDC may please deliberate.

C.20 List of Important Grid Elements:

Draft List of Important Grid Elements of NER for 2020-21 has been prepared and mailed to the constituents and comments may be shared till 5th May 2021. All the constituents are requested to kindly check and validate their data after which it shall be finalized.

NERLDC may please deliberate.

AGENDA ITEM FROM OTPC

C.21 Power supply to ONGC from Palatana GBPP:

ONGC, the fuel supplier of OTPC is planning to install a Gas Drying Unit (GDU) at ONGC Gas Monitoring Station (GMS) at Palatana to improve the quality of gas being supplied to OTPC. Accordingly, ONGC has requested for around 200 kW of power from Palatana Station Feeder at 3 phase 415 Volt.

It is requested to the forum to grant permission to provide the above requirement of power to the fuel supplier (ONGC) from Palatana Station.

OTPC may please deliberate.

D. I T E M S FOR STATUS REVIEW

D.1 Status update of important grid elements under prolonged outage impacting system operation:

Sl. No	Element	Owner	Status as informed in the 176th OCCM	Latest status
1	132kV Rangia-Rowta	AEGCL	By 31.03.2021	
2	132kV Mariani – Mokokchung (*out since April'2008*)	AEGCL	Joint survey by Apr'21	
3	FSC of 400kV Balipara – Bongaigaon-4(*out since 02nd Sep'20*)	NERTS	To be reviewed later on.	
4	132kV Roing-Pasighat (*charged through ERS tower*	NERTS	2 piles completed. By 15th May'21.	
5	220kV Mariani-Mokokchung - I	NERTS	By May'21	

Concerned utilities may please inform the status.

D.2 Status of commissioning for Upcoming projects:

Sl. No	Name of the element	Utility	Status as informed in 176th OCC meeting	Latest status
1	400kV Palatana-Surjamaninagar D/C	NERTS	By Mar'21	
2	400kV Silchar – P.K.Bari D/C	NERTS	Charged on 06.03.2021. To be dropped	
3	132kV AGTCCPP-PKBari D/C	STERLITE	Charged on 09.02.2021. To be dropped.	
3	132kV Monarchak-Surjamaninagar	TSECL	By July'21	
4	PLCC for 132kV Loktak-Ningthoukong and 132kV Loktak-Rengpang	MSPCL	By June'21	
5	Construction of 2nd bay at Balipara for 220kV Balipara-Sonabil-2	AEGCL	Award delayed due to MCC.	
6	Bay at 132kV Agia S/Sn for 132kV Agia-Nangalbibra-II	AEGCL	By Mar'21	
7	Upgradation of 132kV Lumshnong – Panchgram line	MePTCL	PSDF approval awaited. To prepare NIT documents.	

8	Diversion of 132kV Bawktlang-Sihhmui	NERTS	By Jul'21	
9	PLCC for 132kV Karong-Kohima	MSPCL	By May'21	
10	400/220kV 500MVA ICT at Mariani	NERTS	completed	
11	132kV Loktak-Ningthoukong-II	MSPCL	Delayed due to RoW issues. By May'21	
12	132kV Roing-Chapakhowa	NERTS	Retendering done. By Dec'21	
13	132kV Rupai-Chapakhowa & Chapakhowa S/Sn	POWERGRID	By Dec'21	
14	Re-conductoring 220kV BTPS-Salakati D/C	NERTS	Exact status to be intimated in a week	
15	220kV Balipara-Sonabil-II	AEGCL	-	

Concerned utilities may please inform the status.

D.3 <u>Testing of Primary Governor response of NER Generating units as per IEGC Cl.5.2(g):</u>

Schedule as agreed in the 176th OCC meeting

Region	Station	No. of generators	Schedule	Duration (days)	Remarks
NER	NEEPCO Tuirial	2	Tentatively during Jun-Jul 2021	4	In high hydro
NER	NEEPCO-Monarchak	2	07th Apr'21 to 13th Apr'21	8	-
NER	NEEPCO-Kameng	4	To be reviewed	8	-
NER	OTPCL-Palatana	2	In May'21	4	-
NER	NTPC Bangaigaon TPP	3	Last week of Apr'21 or May'21	6	-
NER	NHPC Loktak	3	22nd Feb'21 to 27th Feb'21	6	-

NERLDC may please intimate the latest status.

D.4 <u>Restoration of Assets damaged at Kopili HEP due to failure of Penstock:</u>

In 176th OCC meeting DGM, NEEPCO informed that permanent restoration which was earlier proposed to be executed by NERTS will now be done by NEEPCO. The forum noted and requested NEEPCO to apprise the NERPCTP.

NEEPCO may please inform the status.

D.5 <u>Palatana Units MVAR absorption/injection:</u>

On 03.02.2021, Tap position of UAT-1 was increased from 3 to 4 on 03.02.2021 after the issue of high MVAR injection was informed by NERLDC. The same could not be done for

UAT-2 as diverter switch for the same is not operational (as informed by OTPC via email dated 01.02.2021). Presently, GTG-1, STG-1 and STG-2 are seen to be absorbing MVAR in high voltage scenarios. However, GTG-2 is seen to be injecting MVAR most of the time (even in high voltage scenarios). Appropriate **setting** change of UAT-2 is to be done expeditiously. Also, till the rectification of UAT-2 diverter switch, OTPC is requested to take necessary corrective action so that net MVAR injection by OTPC plant becomes zero when bus voltage at Palatana is 400 kV.

In 175th OCC meeting, OTPC informed that during the shutdown of the units of Palatana in the upcoming months, the issue **of** diverter switch of UAT-2 will be rectified. NERLDC requested that till the time UAT-2 is rectified, net MVAR injection by the Palatana plant above 400 kV should be maintained zero when bus voltage at Palatana is 400 kV. ED, NERLDC requested OTPC to intimate the OEM so that absorption by the units will be according to the capability curve.

OTPC may please intimate the status

D.6 Status of Actual Effective Thermal Capacity of Assam, Tripura:

The All India Demand Met is increasing rapidly since October 2020. The peak demand met had touched around 189 GW on 30.01.2021. It is also envisaged that the peak demand is likely to touch around 210 GW during 2021-22.

To cater to this increasing trend in demand, it has become essential to assess the actual availability of conventional generating stations. As per information available with CEA, around 15 GW capacity of conventional generating station was out of bar since last one year.

Ministry of Power, Govt. of India vide enclosed letter no: 5/1/2021-OM dated 10.02.2021 had written to Principal Secretary (Power), Govt of Assam and Principal Secretary (Power), Govt of Tripura to furnish the details of the actual effective thermal capacity which can be utilized to meet the power demand on National level and the State level.

The 176th OCC forum requested Assam, Tripura to submit the status at the earliest.

APGCL, TPGL may please intimate the status.

D.7 Category-wise consumption of electricity in state/UTs:

The monthly category wise consumption data for 2019-20 and April'20 to Jan'21 has been urgently desired by Hon'ble MoS(Power). States may include any other category not mentioned explicitly in the sample.

Further in this regard, it has been advised by CEA that henceforth the monthly data of category-wise consumption of electricity in the States be discussed regularly in OCC with comparative analysis of the same for corresponding monthly data of previous year.

In 176th OCCM Director(O&P), NERPC requested all the SLDCs to submit 2020-21 data at the earliest & henceforth submit the same on a monthly basis to NERPC. SE(SO&PSC), DoP Ar. Pradesh stated that the data is not readily available with SLDCs and same has to be requested from Distribution Wing. The forum requested NERPC to write to DISCOMs so that the data is made available to SLDCs periodically.

NERPC vide letter dated 15.04.2021 has already written to all Heads of DISCOMS of NER States and requested to follow up for furnishing the information at the earliest.

DoP Ar. Pradesh, APDCL, MSPDCL, MePDCL, P&ED Mizoram, DoP Nagaland, TSECL may please update the status.

D.8 Black Start & Restoration Procedure:

Schedule for mock black start & restoration exercise as decided in the 176th OCC meeting:

Plant Name	Date/Period for testing
AGBPP	June'21
AGTTCCPP	July'21
RHEP	Mar'21
Pare HEP	To be reviewed
Kopili HEP	NA
Khandong HEP	To be reviewed
DHEP	To be reviewed
Kameng HEP	After 10.04.2021
OTPC	NA
BGTPP	NA
Loktak HEP	To be reviewed

NERLDC may please inform the status.

D.9 Reactive Power Capability Testing:

Schedule as agreed in the 176th OCCM:

Plant Name	Date/ Period for testing
AGBPP	June'21
AGTTCCPP	July'21
RHEP	May'21
PareHEP	PG test report available
Kopili HEP	NA
Khandong HEP	End of Apr'21
DHEP	June'21

Kameng HEP	20.01.2021
OTPC	To be reviewed
BGTPP	To be reviewed
Loktak HEP	To be reviewed

NERLDC may please inform the status.

AGENDA ITEMS FROM NERLDC:

D.10 Status of synchronizing trolley at 220kV Kathalguri S/Sn:

On 07-04-2021, 08-04-2021 and 09-04-2021 while returning Planned Shutdown of 220 kV Mariani(PG) – Kathalguri line, line was extended from Mariani(PG) end but could not be synchronised at Kathalguri end due to issue with synchronizing trolley at Kathalguri end (as reported by AGBPP personnel). Due to this, the line had to be opened and charged from Kathalguri end and synchronized at Mariani end. This is undesirable as Kathalguri is a generation hub. Similar event occurred while returning E/S/D of 220 kV AGBPP – Mariani(PG) TL on 08-03-2021 (was discussed in 176th OCC) and while charging 220 kV Kathalguri – Tinsukia D/C on 08-04-2021.

NERLDC may please deliberate.

D.11 Status of special tripping logic at 400kV Mariani S/Sn:

POWERGRID confirmed of the implementation of the Tripping Logic on 11-03-2021 at 18:12 hrs. However, on25-03-2021, at 12:34 hrs, 400 kV Kohima- New Mariani II tripped from both ends. However, as per Special tripping logic implemented at 400 kV New Mariani (PG), 125 MVAR B/R-1 at New Mariani (which was in service at the time of tripping) should have tripped. This however did not happen in the event of tripping of the line.

NERLDC may please deliberate.

Metering Agenda

D.12 Faulty SEM replacement and SEM installation at new locations

100 SEMs and 20 DCDs had been procured. List for replacement of faulty SEMs and location for new SEM installation had been submitted by NERLDC vide earlier OCCMs. All locations as per the list could not be considered due to the requirement of SEMs for the Sterlite & KMTL on-going projects and hence some priority basis locations were decided, and work is under progress.

As on date the status of completion of SEM replacement/installation and DCD distribution as per record of NERLDC is attached (**Annexure.D.12**) for discussion of any kind of issue.

NERTS may please intimate the status.

D.13 SEMs to be procured for STERLITE and KMTL on-going projects:

It was decided that additional 50 nos. of SEMs needed to be procured before completion of Sterlite & KMTL projects. However, that couldn't be done and SEMs required for those projects handed over from earlier procured 100 SEMs on need basis.

NERTS placed quantity variation order for procurement of 50nos. of SEMs and 10 nos. of DCDs based on the decision of the Forum.

NERTS confirmed over mail regarding receipt of 50 Nos. SEMs and and 10 Nos. DCDs at Misa Substation on 23.03.2021.

List of second phase of SEM replacement/installation and DCD distribution is attached (**Annexure.D.13**) for discussion.

NERTS may please intimate the status.

D.14 Procurement of SEM/DCD laptop for future requirements:

In 170th OCCM NERLDC presented the estimation 125 nos. SEMs and 15 nos. CMRIs shall be required for future projects and maintaining spare. List of SEMs and CMRIs was presented by NERLDC. The forum also decided that procurement will be done on single tender basis from L&T to synchronize with the existing metering system

In 176th OCCM NERTS informed that LoA would be placed by Apr'21 after CC approval.

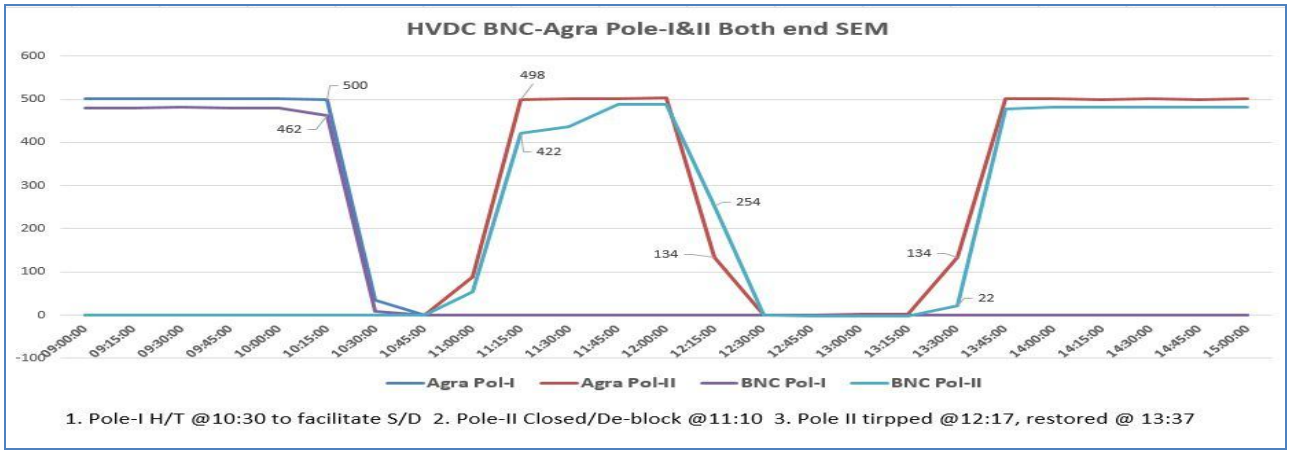
NERTS may please intimate the status.

D.15 SEM time drift:

Time drift more than 5mins observed in Biswanath Chariali Substation, SEM no. NP-9678-A, NP-8801-A, NP-7601-A (Pole-1), NP-5798-A (Pole-2) and other meters also having time drift. It is requested to take necessary action as these SEMs are very important for accounting of Inter-regional exchanges.

In 176th OCCM, Chief Manager, NERTS informed that time drift of SEMs at Biswanath Chariali

Substation has been corrected. However, it is observed that mismatch of energy accounting of NER-NR HVDC link by comparing with Agra end data in few blocks on 24.03.2021 where changeover/Blocking/De-blocking of Poles was done due to some s/d & requirement. Graphical representation is given below:



NERTS may please intimate the status.

D.16 Collection of SEM data:

1. Budhjungnagar (TSECL) end of 132kv Budhjungnagar (TSECL)-SM Nagar (Sterlite) line,
2. SM Nagar (TSECL) end of 132kV SM Nagar (TSECL)- SM Nagar (Sterlite),
3. PK Bari (TSECL) end of 132kV PK Bari (TSECL)- PK Bari (Sterlite) line,
4. Ambassa (TSECL) end of 132kV Ambassa (TSECL)-PK Bari (Sterlite) line

Data of the above mentioned newly charged lines not received from TSECL (SLDC, Agartala).
As per regulations SLDC, Agartala should take necessary action for sending the data to NERLDC. However, due to non-availability of DCDs in most of the Substations of Tripura SEM data is being sent to NERLDC by NERTS. Forum may find out suitable solutions for sending SEM data to NERLDC of the above-mentioned lines.

Deliberation of the 175th OCCM:

Due to existing shortage of DCDs, same cannot be provided to Tripura for some time for new locations. This creates difficulty in getting SEM data from Budhjungnagar, Ambassa, PK Bari and SM Nagar. Matter was discussed and it was decided that during the interim period POWERGRID, NERTS will provide readings for all the SEMs installed at PK Bari S/s and SM Nagar S/s of Tripura and Sterlite will provide readings for all the SEMs installed at Budhjungnagar S/s and Ambassa S/s of Tripura.

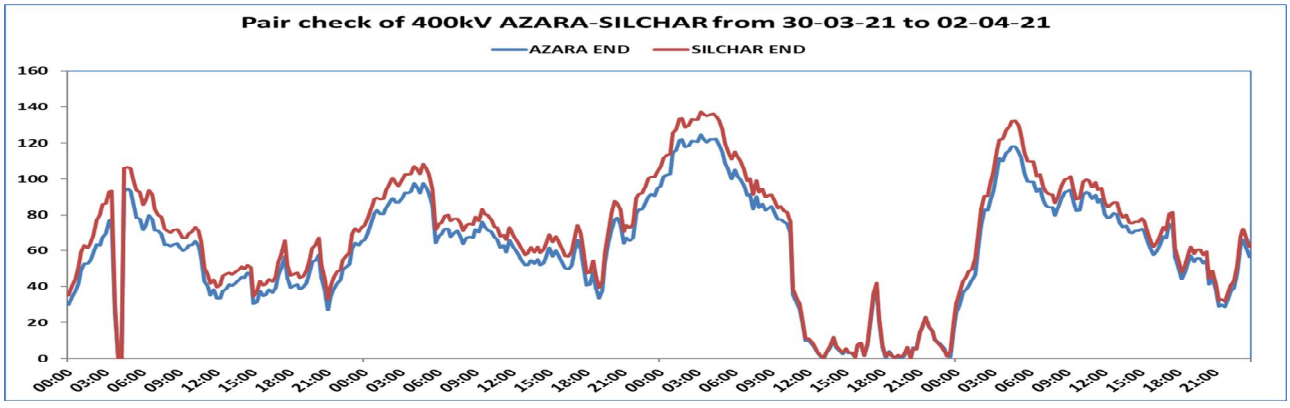
Issues related to data collection at 132kV Ambassa S/s for Ambassa (TSECL) end of 132kV PK Bari (Sterlite)

In 176th OCCM Chief Manager(AM), NERTS informed that at Ambassa 5A CT secondary is available and existing SEMs procured by NERTS can be connected to 1A secondary only. AGM, TSECL intimated the forum that M/s STERLITE has procured SEM(5A Type B) which has same specification as(1A type A) as provided by CTU and same can be installed at Ambassa end. Further, TSECL informed that under ongoing upgradation works in Tripura, all CTs having 5A secondary shall be replaced with CTs with 1A secondary at Ambasa.

The forum agreed for installation of the 5A SEMs procured by M/s STERLITE after getting certification from CTU/POWERGRID at Ambassa S/Sn till the CTs are replaced with 1A secondary CTs by TSECL at the earliest. After installation NERLDC shall verify the reading by comparing with the other end reading.

NERLDC may please deliberate.

D.17 Pair check mismatch of 400kV Silchar-Azara:



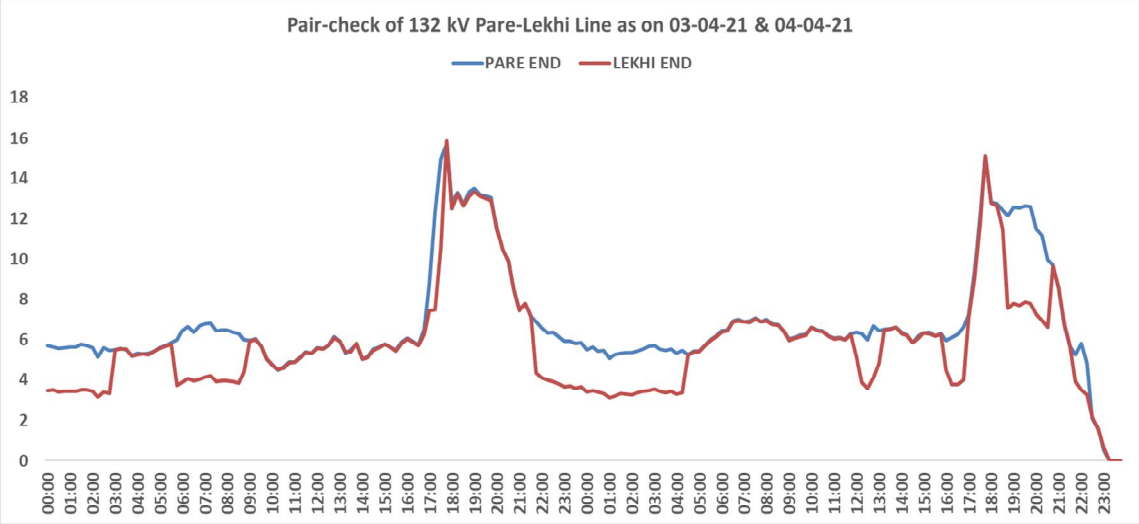
Above line is very important for Energy accounting of Assam. Both end SEM vs. SCADA data was also compared and found to be matching for individual end as same CT core is being used for both SCADA and SEM. But, for both end data, the difference is persisting with higher value of Silchar end (export). Though, Azara end SEM has to be considered as main meter but since high regional loss has been observed, Silchar end data is being considered for accounting. It is also to mention that CT ratio of both end is different (Silchar: Azara= 1000: 2000).

Moreover, at Azara S/s AEGCL energy meter may also be there connected to the same CT core. If meter existed, connection may be checked.

Corrective actions may be taken at respective ends.

NERLDC may please deliberate.

D.18 <u>Pair check mismatch of 132kV Lekhi-Pare:</u>



From the above graph, mismatch in power flow is observed which may be due to time drift, different CT ratio (Pare :Lekhi = 400: 600), etc.

Corrective actions may be taken at respective ends.

NERLDC may please deliberate.

D.19 <u>Meter Starting current:</u>

400/220kV, 500MVA New Mariani ICT #1, 0 (zero) reading has been observed (which is due to very low power flow and reversal of flow direction.Similar issue was also observed in case of 400kV Silchar-PK Bari(Sterlite) #2.

As per IS.14697.1999 standards, the starting current (the meter shall start and continue to register) is 0.1% of basic current (Ib) and current value above 0.05*Ib gives less erroneous result. Now, SEM connected in above mentioned elements have very high CT ratio (for ICT 3000:1; for transmission line 2000:1) but loading is very low.

Based on the above, it is better to connect the SEMs at the least possible CT core for better reading accuracy where possibility of power flow is less. It is also to mention that in some 400 kV lines SEMs are connected with CT ratio of 2000:1 (eg, Azara S/s) where maximum thermal loading is quite low in comparison to maximum CT current rating.

Again, as per the IS.14697.1999 standards "the rated maximum currents shall be 1.2 times of basic current" and "Short-Time Over Current rating20 times the maximum current for 0.5 seconds". Therefore, SEM has the ability to handle high current during emergency situation.

Forum may discuss and recommend for requirement of necessary changes of CT ratio for better accuracy of energy accounting.

NERLDC may please deliberate.

Any other item:

Date and Venue of next OCC

Annexure- D.12 (I)

1ST PHASE REPLACEMENT OF SEM AS PER NERLDC RECORD						
SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	OLD METER NO	NEW METER NO	FEEDER NAME	REMARKS TO BE NOTED IN OCCM
1	ASSAM	SARUSAJAI	NP-8489-A	NP-9921-A	S'SAJAI END OF 132kV UMTRU FDR-1	
2	ASSAM	SARUSAJAI	NP-8492-A	NP-9922-A	S'SAJAI END OF 132kV UMTRU FDR-2	
3	ASSAM	DULLAVCHERRA	NP-9438-A	NP-9904-A	DULLAVCHERRA END OF D'NGAR FDR	
4	ASSAM	AZARA	NP-9456-A	NP-9983-A	AZARA END OF 400 KV BONGAIGAON	
5	ASSAM	AZARA	NP-9457-A	NP-9981-A	AZARA END OF 400 KV SILCHAR	
6	MANIPUR	NINGTHOUKHONG	NP-9521-A	NP-9946-A	NINGTHOUKHONG END OF IMPHAL (PG)	
7	MANIPUR	YUREMBAM	NP-6951-A	NP-9948-A	YUREMBAM END OF KARONG FDR	
8	MANIPUR	JIRIBAM	NP-8645-A	NP-9902 A	JIRIBAM(MAN) END OF JIRIBAM(PG)FDR	
9	NAGALAND	KOHIMA	NP-9703-A	NP-9947-A	KOHIMA END OF KARONG FDR	
10	POWERGRID	SILCHAR	NP-8666-A	NP-9898-A	SILCHAR END OF HAILAKANDI-II	
11	POWERGRID	SILCHAR	NP-8667-A	NP-9900-A	SILCHAR END OF HAILAKANDI-I	
12	POWERGRID	SILCHAR	NP-8664-A	NP-9895-A	SILCHAR END OF SRIKONA-I	
13	POWERGRID	SILCHAR	NP-8665-A	NP-9897-A	SILCHAR END OF SRIKONA-II	
14	POWERGRID	HAFLONG	NP-8656-A	NP-9956-A	HAFLONG END OF JIRIBAM	
15	POWERGRID	IMPHAL	NP-8672-A	NP-9949-A	IMPHAL (PG) END OF LOKTAK-2	
16	POWERGRID	IMPHAL	NP-4520-A	NP-9982-A	IMPHAL END OF NEW KOHIMA 1	
17	POWERGRID	IMPHAL	NP-4504-A	NP-9985-A	IMPHAL END OF NEW KOHIMA 2	
18	POWERGRID	JIRIBAM	NP-8623-A	NP-9903 A	JIRIBAM(PG) END OF BADARPUR FDR	
19	POWERGRID	MOKOKCHANG	NP-4518-A	NP-9923-A	220/132KV,30 MVA ICT-1 AT MOKOKCHANG LV-SIDE	
20	POWERGRID	MOKOKCHANG	NP-4515-A	NP-9938-A	220/132KV,30 MVA ICT-2 AT MOKOKCHANG LV-SIDE	

1ST PHASE INSATALLATION OF SEM AT NEW PROJECT LOCATIONS						
SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	METER NO	UTILITY INVOLVED	FEEDER NAME	REMARKS TO BE NOTED IN OCCM
1	AR PRADESH	ITANAGAR (CHIMPU)	NP-9935-A	STERLITE	132 kV ITANAGAR END OF BNC FDR 1	
2	AR PRADESH	ITANAGAR (CHIMPU)	NP-9939-A	STERLITE	132 kV ITANAGAR END OF BNC FDR 2	
3	ASSAM	KARIMGANJ	NP-9690-A	ASSAM	132 kV KARIMGANJ END OF BADARPUR	
4	ASSAM	KARIMGANJ	NP-9937-A	ASSAM	132 kV KARIMGANJ END OF KUMARGHAT	
5	MANIPUR	THOUBAL	NP-9668-A	MANIPUR	400 kV THOUBAL END OF IMPHAL(PG)-1	
6	MANIPUR	THOUBAL	NP-9603-A	MANIPUR	400 kV THOUBAL END OF IMPHAL(PG)-2	
7	TSECL	PK BARI	NP-9933-A	STERLITE / TRIPURA	132 kV PK BARI (TSECL)-RC NAGAR1	
8	TSECL	PK BARI	NP-9932-A	STERLITE / TRIPURA	132 kV PK BARI (TSECL)-RC NAGAR 2	
9	TSECL	PK BARI	NP-9919-A	STERLITE / TRIPURA	132 kV PK BARI (TSECL)-PK BARI (STERLITE)	
10	TSECL	PK BARI	NP-9934-A	STERLITE / TRIPURA	132 kV AMBASSA(TSECL)-PK BARI (STERLITE)	
11	TSECL	BUDHJUNGNAGAR	NP-9943-A	STERLITE / TRIPURA	132 kV BUDHJUNGNAGAR END OF 132 kV SM NAGAR (STERLITE)	
12	TSECL	SM NAGAR	NP-9942-A	STERLITE / TRIPURA	SM NAGAR (TSECL) END OF SM NAGAR (STERLITE)	
13	NEEPCO	RC NAGAR	NP-9940-A	STERLITE / TRIPURA	132 kV RC NAGAR-PK BARI (TSECL) 1	
14	NEEPCO	RC NAGAR	NP-9457-A	STERLITE / TRIPURA	132 kV RC NAGAR-PK BARI (TSECL) 1 CHECK METER	
15	NEEPCO	RC NAGAR	NP-9941-A	STERLITE / TRIPURA	132 kV RC NAGAR-PK BARI (TSECL) 2	

1ST PHASE INSATALLATION OF SEM AT NEW PROJECT LOCATIONS						
SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	METER NO	UTILITY INVOLVED	FEEDER NAME	REMARKS TO BE NOTED IN OCCM
16	NEEPCO	RC NAGAR	NP-9456-A	STERLITE / TRIPURA	132 kV RC NAGAR-PK BARI (TSECL) 2 CHECK METER	
17	OTPC	PALATANA	NP-9944-A	STERLITE	PALATANA END OF 400 kV SM NAGAR (STERLITE)-1	CHECK METER REQUIRED
18	OTPC	PALATANA	NP-9977-A	STERLITE	PALATANA END OF 400 kV SM NAGAR (STERLITE)-2	CHECK METER REQUIRED
19	POWERGRID	MISA	NP-9928-A	STERLITE	400 kV MISA-SILCHAR 1	
20	POWERGRID	MISA	NP-9929-A	STERLITE	400 kV MISA-SILCHAR 2	
21	POWERGRID	MISA	NP-9892-A	KMTL	400 kV MISA-NEW MARIANI I	
22	POWERGRID	MISA	NP-9894-A	KMTL	400 kV MISA-NEW MARIANI II	
23	POWERGRID	MARIANI	NP-9959-A	KMTL	400 kV/ 220 kV NEW MARIANI ICT II LV SIDE	
24	POWERGRID	MARIANI	NP-9950-A	KMTL	400 kV/ 220 kV NEW MARIANI ICT II HV SIDE	
25	POWERGRID	MARIANI	NP-9958-A	KMTL	400 kV/ 220 kV NEW MARIANI ICT I LV SIDE	
26	POWERGRID	MARIANI	NP-9951-A	KMTL	400 kV/ 220 kV NEW MARIANI ICT I HV SIDE	
27	POWERGRID	MARIANI	NP-9974-A	KMTL	400 kV NEW MARIANI- NEW KOHIMA (KMTL)-1	
28	POWERGRID	MARIANI	NP-9980-A	KMTL	400 kV NEW MARIANI- NEW KOHIMA (KMTL)-2	
29	POWERGRID	IMPHAL	NP-9547-A	MANIPUR	400 kV IMPHAL (PG) END OF THOUBAL 1	
30	POWERGRID	IMPHAL	NP-9543-A	MANIPUR	400 kV IMPHAL (PG) END OF THOUBAL 2	
31	POWERGRID	IMPHAL	NP-9982-A	KMTL	400 kV Imphal end of New KOHIMA_1	
32	POWERGRID	IMPHAL	NP-9985-A	KMTL	400 kV Imphal end of New KOHIMA_2	
33	POWERGRID	SILCHAR	NP-9925-A	STERLITE	400 kV SILCHAR- MISA-1	
34	POWERGRID	SILCHAR	NP-9896-A	STERLITE	400 kV SILCHAR- MISA-II	
35	POWERGRID	SILCHAR	NP-9901-A	STERLITE	SILCHAR END OF 400 PK BARI (STERLITE)I	
36	POWERGRID	SILCHAR	NP-9899-A	STERLITE	SILCHAR END OF 400 PK BARI (STERLITE) II	
37	POWERGRID	BNC	NP-9961-A	STERLITE	132 kV BNC END OF ITANAGAR BNC FDR 1	
38	POWERGRID	BNC	NP-9962-A	STERLITE	133 kV BNC END OF ITANAGAR BNC FDR 1	
39	KMTL	NEW KOHIMA	NP-9972-A	KMTL	400 kV NEW KOHIMA END OF MARIANI FDR I	
40	KMTL	NEW KOHIMA	NP-9973-A	KMTL	40 kV NEW KOHIMA END OF MARIANI FDR II	
41	KMTL	NEW KOHIMA	NP-9986-A	KMTL	400 kV/ 220 kV ICT I HV SIDE KOHIMA SS	
42	KMTL	NEW KOHIMA	NP-9988-A	KMTL	400 kV/ 220 kV ICT I LV SIDE KOHIMA SS	
43	KMTL	NEW KOHIMA	NP-9987-A	KMTL	400 kV/ 220 kV ICT II HV SIDE KOHIMA SS	
44	KMTL	NEW KOHIMA	NP-9989-A	KMTL	400 kV/ 220 kV ICT II LV SIDE KOHIMA SS	
45	KMTL	NEW KOHIMA	NP-9970-A	KMTL	400 kV NEW KOHIMA END OF IMPHAL FDR I	
46	KMTL	NEW KOHIMA	NP-9971-A	KMTL	400 kV NEW KOHIMA END OF IMPHAL FDR II	
47	STERLITE	PK BARI	NP-9931-A	STERLITE	132 kV PK BARI (STERLITE)-PK BARI (TSECL)	
48	STERLITE	PK BARI	NP-9930-A	STERLITE	132 kV PK BARI (STERLITE)-AMBASSA(TSECL)	

1ST PHASE INSATALLATION OF SEM AT NEW PROJECT LOCATIONS						
SL. NO	**UTILITY NAME**	**LOCATION/ SUBSTATION**	**METER NO**	**UTILITY INVOLVED**	**FEEDER NAME**	**REMARKS TO BE NOTED IN OCCM**
49	STERLITE	PK BARI	NP-9917-A	STERLITE	PK BARI (STERLITE) END OF 400 kV SM NAGAR (STERLITE) I	
50	STERLITE	PK BARI	NP-9918-A	STERLITE	PK BARI (STERLITE) END OF 400 kV SM NAGAR (STERLITE) II	
51	STERLITE	PK BARI	NP-9905-A	STERLITE	400/132 kV PK BARI(STERLITE) ICT-1 HV SIDE	
52	STERLITE	PK BARI	NP-9906-A	STERLITE	400/132 kV PK BARI(STERLITE) ICT-1 LV SIDE	
53	STERLITE	PK BARI	NP-9907-A	STERLITE	400/132 kV PK BARI(STERLITE) ICT-2 HV SIDE	
54	STERLITE	PK BARI	NP-9908-A	STERLITE	400/132 kV PK BARI(STERLITE) ICT-2 LV SIDE	
55	STERLITE	PK BARI	NP-9916-A	STERLITE	PK BARI (STERLITE) END OF 400 kV SILCHAR I	
56	STERLITE	PK BARI	NP-9915-A	STERLITE	PK BARI (STERLITE) END OF 400 kV SILCHAR II	
57	STERLITE	SM NAGAR	NP-9893-A	STERLITE	132 kV SM NAGAR (STERLITE) END OF BUDHJUNGNAGAR	
58	STERLITE	SM NAGAR	NP-9890-A	STERLITE	132 kV SM NAGAR (STERLITE) END OF SM NAGAR (TSECL)	
59	STERLITE	SM NAGAR	NP-9978-A	STERLITE	SM NAGAR (STERLITE) END OF 400 kV PK BARI 1 (sterlite)	
60	STERLITE	SM NAGAR	NP-9979-A	STERLITE	SM NAGAR (STERLITE) END OF 400 kV PK BARI 2 (sterlite)	
61	STERLITE	SM NAGAR	NP-9965-A	STERLITE	400/132 kV SM NAGAR (STERLITE) ICT-1 HV SIDE	
62	STERLITE	SM NAGAR	NP-9966-A	STERLITE	400/132 kV SM NAGAR (STERLITE) ICT-1 LV SIDE	
63	STERLITE	SM NAGAR	NP-9967-A	STERLITE	400/132 kV SM NAGAR (STERLITE) ICT-2 HV SIDE	
64	STERLITE	SM NAGAR	NP-9968-A	STERLITE	400/132 kV SM NAGAR (STERLITE) ICT-2 LV SIDE	
65	STERLITE	SM NAGAR	NP-9975-A	STERLITE	400 kV SM NAGAR (STERLITE) END OF PALATANA 1	
66	STERLITE	SM NAGAR	NP-9976-A	STERLITE	400 kV SM NAGAR (STERLITE) END OF PALATANA 2	
NOTE: TOTAL SEM USED OUT OF 100 = 86 SEMs. (REPLACED = 20 SEM; STERLITE = 42 SEM; KMTL = 18; ASSAM=2 SEM;						

Annexure- D.12 (II)

AS PER NERLDC RECORD FOR 1ST PHASE DCD DISTRIBUTION				
SL. NO	**UTILITY NAME**	**LOCATION/ SUBSTATION**	**DATE OF RECEIPT**	**REMARKS (TO BE NOTED IN OCCM)**
1	Ar. PRADESH	LEKHI	02.09.2020	
2	ASSAM	AGIA	26.12.2020	
3	ASSAM	AZARA	26.12.2020	
4	ASSAM	BTPS	08.10.2020	
5	ASSAM	SARUSAJAI	07.01.2021	
6	ASSAM	KAHILIPARA	07.01.2021	
7	MANIPUR	YUREMBAM	RECEIVED	
8	MEGHALAYA	UMTRU	05.11.2020	
9	MEGHALAYA	MENDIPATHAR	05.11.2020	Not capable of Time Drift correction. To be replaced as decided in 176th OCCM
10	TRIPURA	AGARTALA(79 ILLA)	01.01.2021	
11	TRIPURA	UDAIPUR	01.01.2021	
12	TRIPURA	DHARMANAGAR	18.11.2020	
13	POWERGRID	JIRIBAM	18.11.2020	
14	POWERGRID	DIMAPUR	18.11.2020	
15	ASSAM	DULLAVCHERA	NOT RECEIVED	Will be supplied after procurement as intimated by NERTS
16	ASSAM	TINSUKIA	NOT RECEIVED	
17	MEGHALAYA	BYRNIHAT	NOT RECEIVED	
18	STERLITE	PK BARI	NEW PROJECT	
19	STERLITE	SM NAGAR	NEW PROJECT	
20	KMTL	NEW KOHIMA	NEW PROJECT	

NOTE: out of 20 Nos. of DCDs, 17 Nos. distributed and rest 3 Nos. will be clubbed with 2nd phase of distribution list

Annexure - D.13(I)

SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	OLD METER NO	METER TYPE	FEEDER NAME	REMARKS	REMARKS TO BE NOTED AT OCCM	REFERENCE
1	ASSAM	SONABIL	NP-5795-A	LNT	SONABIL END OF 220 kV BALIPARA-1 FDR	SEM OUT OF ORDER		170th OCC-New meter list
2	ASSAM	HAFLONG	NIL		HAFLONG (AS) END OF HAFLONG PG	NO METER		170th OCC-New meter list
3	MANIPUR	TIPAIMUKH	NP-8615-A		TIPAIMUKH END OF AIZAWL	DATA NOT SEND		
4	MANIPUR	TIPAIMUKH	NP-8618-A		TIPAIMUKH END OF JIRIBAM	DATA NOT SEND		
5	MIZORAM	ZUANGTUI	NIL		ZUANTUI END OF 132 kV MELRIAT	NO METER		170th OCC-New meter list
6	MIZORAM	LUNGMUAL	NIL		LUNGMUAL END OF 132 kV AIZAWL	NO METER		170th OCC-New meter list
7	OTPC	PALATANA	NP-8382-A	LNT	PALATANA ICT-HV SIDE	MALFUNCTION		170th OCC-2nd list
8	OTPC	PALATANA	NP-7602-A	LNT	PALATANA ST-1	MALFUNCTION		170th OCC-2nd list
9	OTPC	PALATANA	NP-7584-A	LNT	PALATANA ST-2	MALFUNCTION		170th OCC-2nd list
10	OTPC	PALATANA	NP-6855-A	LNT	PALATANA END OF 400 KV SILCHAR-2 FEEDER	MALFUNCTION		
11	OTPC	PALATANA	NP-5799-A	LNT	PALATANA GT-1	MALFUNCTION		
13	POWERGRID	JIRIBAM	NIL		JIRIBAM_PG TRF FOR MANIPUR CONSUMPTION (HV SIDE)	NO STANDBY METER		170th OCC-New meter list
14	POWERGRID	NIRJULI	NIL		NIRJULI_PG TRF 1 HV SIDE	NO STANDBY METER		170th OCC-New meter list
15	POWERGRID	NIRJULI	NIL		NIRJULI_PG TRF 2 HV SIDE	NO STANDBY METER		170th OCC-New meter list
16	POWERGRID	IMPHAL	NIL		IMPHAL TRF 1 FOR MANIPUR CONSUMPTION (HV SIDE)	NO STANDBY METER		170th OCC-New meter list
17	POWERGRID	IMPHAL	NIL		IMPHAL TRF 2 FOR MANIPUR CONSUMPTION (HV SIDE)	NO STANDBY METER		170th OCC-New meter list
18	POWERGRID	MOKOKCHANG	NIL		MOKOCHANG(PG) END OF MOKOK(NL) FDR-1	NO STANDBY METER		170th OCC-New meter list
19	POWERGRID	MOKOKCHANG	NIL		MOKOCHANG(PG) END OF MOKOK(NL) FDR-2	NO STANDBY METER		170th OCC-New meter list
20	POWERGRID	MOKOKCHANG	NIL		220/ 132 kV MOKOKCHANG ICT 1 HV SIDE	NO STANDBY METER		170th OCC-New meter list
21	POWERGRID	MOKOKCHANG	NIL		220/ 132 kV MOKOKCHANG ICT 2 HV SIDE	NO STANDBY METER		170th OCC-New meter list
22	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-1 HV SIDE	NO BOTH MAIN & STANDBY METER		
23	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-1 LV SIDE	NO BOTH MAIN & STANDBY METER		
24	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-2 HV SIDE	NO BOTH MAIN & STANDBY METER		
25	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-2 LV SIDE	NO BOTH MAIN & STANDBY METER		
26	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-3 LV SIDE	NO STANDBY METER		
27	POWERGRID	SILCHAR	NP-8661-A	ELSTER	SILCHAR END OF 132 KV MELRIAT-I	LINE METER		170th OCC-2nd list
28	POWERGRID	SILCHAR	NP-8561-A	ELSTER	SILCHAR END OF 132 KV MELRIAT-II	LINE METER		170th OCC-2nd list
29	POWERGRID	SILCHAR	NP-8571-A	ELSTER	SILCHAR END OF 400 KV IMPHAL-1	LINE METER		170th OCC-2nd list
30	POWERGRID	SILCHAR	NP-8570-A	ELSTER	SILCHAR END OF 400 KV IMPHAL-2	LINE METER		170th OCC-2nd list
31	POWERGRID	SILCHAR	NP-8659-A	ELSTER	SILCHAR(PG) END OF 400kV PALATANA FDR -1	STANDBY METER		170th OCC-2nd list
32	POWERGRID	SILCHAR	NP-8660-A	ELSTER	SILCHAR(PG) END OF 400kV PALATANA FDR -2	STANDBY METER		170th OCC-2nd list
33	POWERGRID	SILCHAR	NP-8662-A	ELSTER	SILCHAR END OF 132 KV BADARPUR-1	LINE METER		170th OCC-2nd list
34	POWERGRID	SILCHAR	NP-8663-A	ELSTER	SILCHAR END OF 132 KV BADARPUR-2	LINE METER		170th OCC-2nd list
35	POWERGRID	MISA	NIL		400/220 kV MISA ICT-2 HV SIDE	NO STANDBY METER		
36	POWERGRID	MISA	NP-8608-A	ELSTER	MISA END OF 220kV MARIANI(PG) FDR	LINE METER		170th OCC-2nd list
37	POWERGRID	MISA	NP-8643-A	ELSTER	MISA END OF 220kV DIMAPUR FDR -1	LINE METER		170th OCC-2nd list
38	POWERGRID	MISA	NP-8640-A	ELSTER	MISA END OF 220kV DIMAPUR FDR -2	LINE METER		170th OCC-2nd list
39	POWERGRID	MISA	NP-8599-A	ELSTER	MISA 400/220kV 315MVA ICT-I (LV SIDE)	STANDBY METER		170th OCC-2nd list
40	POWERGRID	MISA	NP-8638-A	ELSTER	MISA 400/220kV 315MVA ICT-II (LV SIDE)	STANDBY METER		170th OCC-2nd list
41	POWERGRID	BALIPARA	NP-8655-A	ELSTER	BALIPARA END OF 400kV BONGAIGAON FDR -1	LINE METER		170th OCC-2nd list
42	POWERGRID	BALIPARA	NP-8653-A	ELSTER	BALIPARA END OF 400kV BONGAIGAON FDR -2	LINE METER		170th OCC-2nd list
43	POWERGRID	BALIPARA	NP-8654-A	ELSTER	BALIPARA END OF 400kV BONGAIGAON FDR -3	LINE METER		170th OCC-2nd list
44	POWERGRID	BALIPARA	NP-8585-A	ELSTER	BALIPARA END OF 400kV BONGAIGAON FDR -4	LINE METER		170th OCC-2nd list
45	POWERGRID	BALIPARA	NP-8594-A	ELSTER	BALIPARA END OF MISA FDR-1	LINE METER		170th OCC-2nd list
46	POWERGRID	MARIANI	NP-4524-A	ELSTER	MARIANI(PG) END OF 220 KV MOKOKCHANG-1	LINE METER		170th OCC-2nd list
47	POWERGRID	MARIANI	NP-4509-A	ELSTER	MARIANI(PG) END OF 220 KV MOKOKCHANG-2	LINE METER		170th OCC-2nd list
48	POWERGRID	MARIANI	NP-8591-A	ELSTER	MARIANI(PG) END OF 220kV MISA FDR	LINE METER		170th OCC-2nd list
49	POWERGRID	MARIANI	NP-8596-A	ELSTER	MARIANI(PG) END OF 220 KV KATHALGURI	STANDBY METER; DATA NOT CONVERTED		169TH OCCM-1st LIST
50	POWERGRID	MOKOKCHUNG	NP-4510-A	ELSTER	MOKOKCHANG END OF 220 KV MARIANI(NEW)-1	LINE METER		170th OCC-2nd list
51	POWERGRID	MOKOKCHUNG	NP-4516-A	ELSTER	MOKOKCHANG END OF 220 KV MARIANI(NEW)-2	LINE METER		170th OCC-2nd list

Annexure - D.13 (II)

LIST OF 2nd PHASE OF DCD DISTRIBUTION FROM NEWLY PROCURED 10 NOS. DCDs				
SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	REMARKS	REMARKS (TO BE NOTED IN OCCM)
1	ASSAM	DULLAVCHERA	As decided in 1st phase of DCD distribution	
2	ASSAM	TINSUKIA		
3	MEGHALAYA	BYRNIHAT		
4	Ar. PRADESH	TENGA	170TH OCC-NEW METER/DCD LIST	
5	Ar. PRADESH	DEOMALI	NEVER SEND DATA	
6	ASSAM	UMRANGSOO (UMR)	NEVER SEND DATA	
7	ASSAM	MARIANI (AS)	NERTS NEW MARIANI SENDS DATA	
8	ASSAM	HAILAKANDI	NERTS BADARPUR SENDS DATA	
9	ASSAM	SRIKONA	NERTS SILCHAR SENDS DATA	
10	ASSAM	PANCHGRAM	NERTS BADARPUR SENDS DATA	
11	ASSAM	BOKAJAN	NERTS DIMAPUR SENDS DATA	
12	ASSAM	PAVOI	NERTS BNC SENDS DATA	
13	ASSAM	PAILAPOOL	NERTS JIRIBAM SEND DATA	
14	MEGHALAYA	LUMSHNONG	NERTS KHLEIRIAT SENDS DATA	
15	MEGHALAYA	KHLEIRIAT	NERTS KHLEIRIAT SENDS DATA	
16	NAGALAND	SANIS	NEVER SEND DATA	
17	MIZORAM	SIHMUI	NEW LOCATION	
18	MANIPUR	THOUBAL	NEW LOCATION	
19	MANIPUR	TIPAIMUKH	NEVER SEND DATA	
20	TRIPURA	PKBARI	NERTS KUMARGHAT SEND DATA	
21	TRIPURA	SM NAGAR	NERTS SENDS DATA	
22	TRIPURA	AMBASSA	METER NOT AVAILABLE	
23	TRIPURA	BUDHJUNGNAGAR	STERLITE SENDS DATA	
NOTE: Out of 23 Nos. of DCD requirement, 11 Nos. of Locations covered by NERTS & 1 No. location covered by Sterlite.				