

North Eastern Regional Power Committee

Agenda For

159th OCC Sub-Committee Meeting

Time of meeting : 10:00 Hrs.

Date of meeting : 9th August, 2019 (Friday)

Venue : "Pala Resort", Sohra.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 158th MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 158th meeting of Operation Sub-committee held on 12th July, 2019 at Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2016/4556-4591 dated 19th July, 2019.

The Sub-committee may confirm the minutes of 158th OCCM of NERPC as no 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 158th OCC:

State	R&U scheme	ADMS	Capacitor Installation	SAMAST **	Line Differential Protection
Ar. Pradesh	Station-wise status to be updated *	Could not be updated due to absence of DoP Ar. Pradesh representative	-	Not approved by TESG.	-
Nagaland	Station-wise status to be updated *	TPA, A/C opening & Contract agreement by July'19.	-	Not approved by TESG.	Lines identified. Under DPR preparation stage.
Mizoram	Station-wise status to be updated *	TPA, A/C opening & Contract agreement by July'19.	To reply to TESG queries.	Not approved by TESG.	Lines not yet identified. To be taken up in Sub-group.
Manipur	Station-wise status to be updated *	TPA, A/C opening & Contract agreement by July'19.	To reply to TESG queries.	Not approved by TESG.	Lines not yet identified. To be taken up in Sub-group.

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Tripura	Station-wise status to be updated *	TPA, A/C opening & Contract agreement by July'19.	Study to be carried out in consultation with NERLDC.	Not approved by TESG.	Lines not yet identified. To be taken up in Sub-group.
Assam	Station-wise status to be updated *	TPA, A/C opening & Contract agreement by July'19.	-	Appraisal Committee approved.	Lines identified. Under DPR preparation stage.
Meghalaya	MePTCL Station-wise status updated MePGCL – Station-wise status to be updated *	TPA, A/C opening complete. Contract Agreement by July'19	-	Appraisal Committee approved.	Tendering in progress

Meghalaya has submitted the station-wise status. The other state utilities are requested to furnish status in similar format, 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. As per deliberation in the previous meetings all the utilities were requested to submit station-wise status of R&U schemes.

Signing of Contract Agreement i.r.o. ADMS

As on 01.08.2018 Meghalaya, Manipur and Tripura have signed the contract agreement. The signing of Contract Agreement for DoP Ar.Pradesh, AEGCL, P&ED Mizoram, DoP Nagaland may be discussed in 159th OCCM and subsequently signed on same day.

States may please intimate the latest status.

2. Long Outage of Important Grid Elements:

Name of the Element	Name of Utility	Status as informed in 158 th OCC	Latest status
63MVAR Reactor at Byrnihat to replace with 80MVAR Reactor	MePTCL	SCM approval given. DPR to be submitted to NLDC/NPC.	
132kV Dimapur - Imphal (out since 25.07.18)	NERTS	In some locations ROW issue there. Rain impediment to construction works.	
220kV Sonabil-Samaguri-I	AEGCL	Revised estimate submitted on 25.05.19. River	

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		crossing stringing to be done. Detailed steps taken to be submitted	
220kV Sonabil-Samaguri-II (out since 07.07.2019)	AEGCL	-	
132kV Srikona-Panchgram(out since 14.01.2019)	AEGCL	-	

Utilities may please intimate the latest status.

3. Follow up of recommendations of PCC/Sub-group:

SN	Name of element	Actions to be taken	Concerned Utilities	Latest status	Status as informed in the 159 th OCC Meeting
1	132 kV AGTCCPP - Agartala D/C	Installation of Line Differential in 132 kV AGTCCPP - 79 Tilla D/C & Review of impedance setting of both ends as a temporary measure.	NERTS/NEEPCO		
2	132kV AGTCCPP-Kumarghat	GPS to be procured and time synchronization of relay to be done	NEEPCO		
3	132kV PKBari-Kumarghat	Installation of Line differential relay	NERTS	Tender opening 20 th July'19	

Utilities may please intimate the latest status.

4. Submission of various data pertaining to reliable operation of the grid:

Details of the data required	Name of Utility	Status of submission as per 158 th OCC	Latest status
Data for Wind Turbine Generator	All SLDCs	All SLDCs except Assam & Meghalaya to submit the data.	

NERLDC may please intimate the latest status.

B.2. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING JULY, 2019

NERLDC will present the grid performance for the month of July'19.

C. ITEMS- STATUS REVIEW

1. Status of Generating Units, Transmission Lines in NER:

During 159th OCC meeting, the status as informed by different beneficiaries is as follows:

SN	Items	Status as given in 158 th OCC Meeting		Status as given in 159 th OCC Meeting	
		Timeline for completion	Furnishing of detail parameters	Timeline for completion	Furnishing of detail parameters
a. New elements					
1	400/220kV, 315 MVA ICT-1 of NTPC at Bongaigaon	July'19	Application will be submitted immediately		
2	Kameng HEP of NEEPCO two units (2 x 150 MW) Next two units (2x150 MW)	Delayed due to rain. First two units by Oct'19	CEA clearance available		
3	132kV Monarchak – Surjamaninagar D/C of TSECL	Delayed By Oct'19 To be referred to next TCC/RPC	To be submitted to NERLDC.		
4	220/132 kV, 160MVA ICT-II at Balipara	Uncertain due to transportation issues i.r.o. damaged ICT. PG to revert back with exact schedule	To be submitted to NERLDC.		
5	220/132 kV, 1x160 MVA ICT with GIS Bay at Kopili	ICT July'19 Connected in GIS by Dec'19	To be submitted to NERLDC.		
6	Dedicated 33kV feeder at Khliehriat Substation from Lumshnong.	A date will be fixed NERPC, MeECL and NERTS will visit	Not applicable.		

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7	Replacement of 315 MVA ICT-II with 500 MVA ICT at Misa (PG)	By 31.08.2019	To be submitted to NERLDC.		
8	220kV Balipara-Sonabil-2	Estimate under process	To be submitted to NERLDC.		
9	Bay at Agia S/S for 132kV Agia-Nangalbibra Ckt#II by AEGCL	LOA issued on 27.06.19. By Sep'19	To be submitted to NERLDC.		
10	220kV BTPS-Rangia T/L	Jul'19	-		
11	80MVAR B/R at RHEP by NEEPCO	Final Estimate & DPR to be prepared	-		
b. Elements under breakdown/upgradation					
12	Up-gradation of 132 kV Lumshnong-Panchgram line	Queries to be submitted by AEGCL and MeECL	Not applicable.		
13	PLCC Panels at Loktak end of Loktak - Ningthoukhong 132 kV feeder and Loktak - Rengpang 132 kV feeder	Aug'19.	Not applicable.		
14	Upgradation of 132 kV Bus Bar at Umiam Stg- III to ACSR Zebra	DPR submitted. Other upgradation works to be included in DPR	Not applicable		
15	220/132 kV 30 MVA ICT at Mokokchung	ICT by Sep'19. DoCO after GIS commissioning in 2020.	To be submitted to NERLDC		
16	Upgradation of 132kV Yurembam-Karong by MSPCL	WIP. By July'19	-		
17	Upgradation of 132kV Lekhi-Chimpu and Lekhi bus by DoP Ar.Pradesh	Mar'2020	-		

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18	Upgradation of CT at Lekhi for 132kV Lekhi-Chimpu by DoP Ar.Pradesh	Mar'2020	-		
19	Installation of LDP for 132kV AGTCCPP-Agartala D/C & 132kV PKBari-Kumarghat by NERTS	Tender opening 20 th July'19	-		
20	Procurement of GPS at AGTCCPP & time synchronization for 132kV AGTCCPP-Kumarghat by NEEPCO	LOA by Jul'19	-		

Concerned constituents may kindly intimate the status.

C.2. Update on Real Time Energy Assessment for Effective Grid Management:

Data availability is given below:

Name of the state /utility	Data Availability(in%)	Issues
DoP Ar.Pradesh	Not updated	
Assam	Not updated	
Manipur	80%	(i)Frequent hang of TARA device, resumes reporting upon reboot. (ii) Yurembam end of 132kv of Imphal(PG)-2 fdr corresponding to SEM NP-8374-A not reporting (iii) Jiribam 132/133kv ICT(manipur consumption), corresponding to SEM NP-8501-A not reporting
Meghalaya	Not updated	
Mizoram	50%	Luangmual end of 132kV Aizawl(PG) not reporting; Kolasib end of 132kV Badarpur(PG) not reporting
Nagaland	37.5%	Non-reporting: (i)Kohima end of 132kV Dimapur(PG)-2 (ii)Sanis end of 132kV DHEP (iii)Mokokchung end of Mokokchung(PG)-1 (iv) Mokokchung end of Mokokchung(PG)-2 (v) Mokokchung end of DHEP FDR
Tripura	Not updated	

Important operational issues:

- In 158th OCCM, AE, SLDC, MeECL informed that after TARA devices are connected the SEMs hung. It was decided that NERPC would write to CDAC for Test Bench Study in this regard.

Members may intimate any other operational issues.

Members may please intimate the status.

C.3. Ensuring proper functioning of Under Frequency Relays(UFR) & df/dt Relays:

In 7th NPC meeting held on 08.09.17 it was agreed that mock test is good enough to test the healthiness of the UFR & df/dt relays. The frequency of site inspection was proposed to be upto six months. RPC may carry out periodic inspection, in line with provisions of IEGC and furnish inspection reports to NPC.

Deliberations in the previous meetings:-

- Inspection for Mawphlang completed.
- Inspection for Sankardevnagar, Rangia and Rowta under Assam was completed in April'2019.
- UFR Inspection and Testing for TSECL Stations as well as UFRs under Islanding Scheme No.2 carried out in June'19.

In 158th OCCM, DGM, SLDC, TSECL informed the following status:

For all existing UFR except SMNagar	To be replaced by Sep'19
UFR at SMNagar	By Aug'19
Additional UFR under Islanding Scheme-II	Planning to be complete by Aug'19

Member Secretary(I/C), NERPC informed that Manipur/Nagaland would be completed in the next phase of UFR inspection.

NERPC/TSECL may please inform the status.

C.4. Extended C Band VSAT for power system communications in NER:

In 156th OCCM CGM, NERLDC informed that KPTCL has committed to go ahead with the Pilot Project. The readiness for immediate execution of the same will be communicated.

MePTCL raised apprehensions regarding the possibility of Cyber Security breach at Killing as fallout of this pilot. NERLDC informed that the same has already been taken care of, which will be addressed by GM(SL), NERLDC. In 157th OCCM, CGM, NERLDC informed that the queries have already been addressed by NERLDC. He also informed that Cyber Security aspects are taken care by the firewall. MePTCL requested that the same may be intimated to EE, Killing.

In 158th OCC Meeting it was informed that EE, Killing, MePTCL would resolve the issues with ABB at the earliest.

MePTCL may please intimate the status.

C.5. DIMAPUR PG telemetry out since Feb'18.

In 158th OCCM NERTS informed that LOA was placed on 06.05.2019. The target for completion is Nov'19.

NERTS may please update the latest status.

C.6 Update on PDMS:

As per deliberation in the previous meeting(s) the following status/decisions:-

- SAT for Assam system completed. Data collection for Meghalaya, Tripura & Mizoram completed.
- In 158th OCCM NERLDC highlighted that details of transmission lines, Bus Reactors and Line Reactors mentioned in the report seem to vary from the data available with NERLDC. NERLDC agreed to submit the detailed report to NERPC by July'19.

NERPC/PRDC may please update the status.

C.7 Non-availability/ Non-functioning of synchronization facility at numerous stations

As per deliberations in the previous meetings the following is the status for synchronization facility at stations of different utilities:

- AEGCL – AEGCL informed that as per report from MRT division CR panels has check-sync facility available and no separate procurement of synchroscope is necessary.
- DoP Ar. Pradesh –Lekhi S/S no Sync check relay is available while for Chimpu relay is available. The procurement for trolley/synchroscope is being initiated and exact date for implementation would be intimated later on. But, they will have Synchronization facility latest by Oct 2019.
- In 158th OCCM NERLDC suggested that for any one circuit(in AEGCL system) shutdown may be given and synchronisation of the line with grid may be done. The forum agreed.

NERLDC/AEGCL/DoP Ar. Pradesh may please update the status.

C.8 Phase shift errors in PMU:

In 158th OCCM NERTS informed that schedule of works has been prepared and the works would be completed by Aug'19. AEGCL was requested to prepare the schedule of works in consultation with NERTS.

NERTS/AEGCL may please update the status.

C.9 Compensation for Heat Rate degradation and Auxiliary Energy Consumption in case of gas based power plants:

In 158th OCCM Member Secretary(I/C), NERPC informed that the meeting could not be held due to unavoidable circumstances. He informed that the procedure being followed in other RPCs have been sought. After receipt of the same the meeting would be convened immediately.

NERPC may please intimate the status.

C. 10 Tentative schedule for Black Start & Restoration Procedure Mock exercise in NER during the year 2019

In 156th OCCM the mock black start schedule was agreed as below:
AGTCCPP completed
LOKTAK After commissioning of 132kV Bus-A

Khandong completed

KOPII completed

RHEP to be done in lean season

DOYANG could not be completed due to synchronization problem in 132kV DHEP-Dimapur-I

AGBPP – NEEPCO to revert back on Black Start using DG.

NEEPCO/NHPC/NERLDC may please intimate the status.

C. 11 DVAR and PSS at AGTCCPP:

In 158th OCCM Sr. Manager, NEEPCO informed that the work would start from July'19, during s/d of Unit 4. Since Unit #4 is having Coupling problem the DVAR & PSS installation is expected to be complete for Unit #4 by Oct'19. For other units the installation would be done subsequently.

NEEPCO may please intimate the status.

C. 12 Bus Configuration issues for various sub-stations:

Status as on 156th OCC Meeting:

- 132kV Transfer Bus at Loktak HEP - CEA Inspection Applied For.
- 400kV Bus A at RHEP - Sr. Manager, NEEPCO informed that Pantograph and Bus Coupler CB problems still remain, which is delaying the commissioning of Bus-A. The forum decided that a team comprising of members from NERTS, NERLDC & NERPC would visit RHEP in July'19 to assess the works required for commissioning of Bus-A.
- 132kV Bus-2 at Surjamaninagar - Bus Coupler CT connector got burnt on 18.06.2019. After repair of the same the original configuration would be reverted by July 2019.
- 132kV Bus Coupler at Pavoi to be commissioned by July'19

TSECL/ NEEPCO/NHPC/NERPC may please inform the status.

C.13 Status review of upcoming projects by Sterlite Grid 4 for strengthening of Southern part of NER Grid by July'19

Status as updated in the 158th OCC Meeting:

1. 400 kV Misa – Silchar D/C by KEC
2. 400 kV P K Bari(Sterlite) - Surjamaninagar(Sterlite) D/C
3. 400/132 kV, 2x315 MVA ICTs at P K Bari (Sterlite)
- 4.400/132 kV, 2x315 MVA ICTs at Surjamaninagar (Sterlite)
- 5.132 kV AGTPCCPP – P K Bari(TSECL) D/C

Also, review of upcoming projects by TSECL for strengthening of Southern part of NER Grid:-

- 1.132 kV P K Bari (TSECL) - P K Bari (Sterlite): *NERPC would write to CMD, TSECL with reference to SCM MoM and also a letter would be sent to CEA/CTU requesting for clarification.*

2.132 kV Surajmaninagar(TSECL) - Surajmaninagar(Sterlite): *Work order for 132kV Surjamaninagar - Surjamaninagar would be placed alongwith diversion of 400kV Palatana-Surjamaninagar*

Scope of work under POWERGRID(CTU):

For 400kV Silchar-Misa D/C line:

- CTU to provide 2 no. of 400kV line bays each at Silchar (PGCIL) and Misa (PGCIL) ¶
- CTU to provide 80 MVAR bus reactor at Misa (PG) along with GIS bay ¶
- CTU to provide Switchable line reactors, 1x80 MVAR at Misa ends of the each circuit of the Silchar– Misa 400kV D/C line

M/s KEC, M/s STERLITE, TSECL, NERTS may please update the status.

C.14 Review of relay settings at Karong:

In 158th OCCM AM, SLDC, MSPCL informed that the restriction of flow via the 132kV Karong-Kohima line was due to the delayed commissioning of 132kV Imphal-Imphal-Ckt#III. CGM, NERLDC requested MSPCL to give load flow studies for limiting load to Kohima by July'19.

MSPCL may please intimate the status.

C.15 Distance Relay Settings Revision at Deothang in Bhutan:

In 158th OCCM Member Secretary(I/C), NERPC informed that settings at Deothang (presently reach settings set at zero) would be be revised ASAP as has been communicated by Bhutan.

NERPC may please intimate the latest status.

C. 16 Status of recommendations reg GD-Vs on 03rd & 20th April,2019:

Recommendations	Status as informed in the 158th OCCM	Latest status
Review of negative phase sequence relay settings for GBC motor at Monarchak (Scope of NEEPCO)	Settings send to BHEL. No reply yet. NEEPCO to collect necessary motor parameters from BHEL for verification of settings	
Identification of weak joints for 400kV Palatana-Silchar D/C (Scope NERTS)	Sample of failed conductor sent to NTH(National Testing House) for verification.	
Study for reactive compensation in Tripura System(scope of TSECL)	SLDC to submit nodewise MVAR data of 33 kV system as per calculation procedure it deems fit.	
Identification of feeders for	Identification	

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additional UFR based load shedding under Islanding Scheme-II(Scope of TSECL)	completed upon visit of team to Tripura.	
Standalone EL for integration of relay at AGTCCPP by Oct'19(Scope of NEEPCO)	AGTCCPP - Oct'19. Standalone EL at RHEP completed in June'19	
All stations to confirm DR downloading facility and it's healthiness at respective stations. A consolidated undertaking by the respective utility in this regard is to be submitted prior to each OCCM.	No declaration submitted as intimated by NERLDC except OTPC. The forum decided that shutdown would not be accorded to utilities not submitting the declaration.	
NHPC to procure standalone EL for Loktak HEP	Next year supply will be done linked with R&M	
NERTS would explore options in consultation with OEM regarding time synchronization issues at Silchar	The problem is suspected to be specific to a make of GPS time synchronizer. The GPS Time Synchroniser at Schar is replaced with a different make on 03.07.19 and is under observation.	
Upon SPS-2 activation 132kV Bus Coupler Breaker to be opened at Palatana. Old scheme of opening of HV side CBs of ICTs to be disabled/removed (Scope of OTPC)	Original Scheme involving tripping of HV side of ICT to be kept in service.	
Revised SPS-3 scheme offer sought from GE by NERTS	The forum approved the technical offer and requested NERTS to acquire the Budgetary offer so that the same may be approved in the next TCC/RPC.	
Line defects in 400kV Silchar - Azara & 400kV Silchar-Byrnihat T/L to be attended(Scope of NETC)	To be executed in the next shutdown	
Impedance measurement	On opportunity	

for 400kV Paltana-Silchar D/C, 400kV Silchar-Azara, 400kV Silchar – Byrnihat		
Line parameters to be matched at Silchar, Azara and Byrnihat.	Shall be done by 15.07.19	
Spare relay REL 670 to be installed at Byrnihat for 400kV Silchar-Byrnihat(Scope of MePTCL)	By July'19	
NERTS and AEGCL to jointly visit Azara and check exact cause for delay in appearance of voltage input to relay when charged via Tie Breaker	Shall be done during July'19	

Concerned utilities may please update the status.

C.17 Status review of upcoming projects for strengthening of Southern part of NER Grid:

Kalparatu by July'20:

- a. 400 kV Imphal – New Kohima D/C
- b. 400 kV New Kohima – Mariani (PG) D/C
- c. 400/220 kV, 2x500 MVA ICTs at New Kohima (Kalparatu)

POWERGRID

- d. 400/220 kV, 2x 500 MVA ICTs at Mariani
- e. Upgradation of Misa – Mariani D/C at 400 kV
- f. Upgradation of S M Nagar (TBCB) – Palatana D/C at 400 kV
- g. Upgradation of P K Bari (TBCB) – Silchar D/C at 400 kV
- h. LILO of S M Nagar (TSECL) – Palatana D/C at S M Nagar (TBCB)
- i. LILO of P K Bari (TSECL) - Silchar D/C at P K Bari (TBCB)

In 158th OCCM Member Secretary(I/C), NERPC requested NERTS to submit the status at the earliest. He also stated that the exact status from the erstwhile M/s Kalparatu is difficult to obtain since the company has disbanded. However, the status would be obtained from CEA.

NERPC/POWERGRID may please intimate the latest status.

C.18 Tripping of all units of BgTPP:

On 23/05/2019 Units I, II, III of BgTPP tripped at 03:06 hrs, 03:37 hrs, 03:56 hrs respectively. In 158th OCCM NTPC gave a detailed presentation on tripping of the three units on 23.05.2019. The suggested recommendations by NTPC are as follows:

Sl. No.	Recommendation	Status
1	Unit -1 unit bus incomer breaker to restored at the earliest	
2	Providing alternate cooling water source to compressors	

NTPC may please intimate the status.

C.19 Transformer Tap Optimization Study:

NERLDC has conducted Transformer Tap Optimization studies considering High Hydro Scenario in North Eastern Region. Suggested taps position of important transformers in NER for maintaining bus voltages within permissible limit as well as to minimize system losses was circulated in the 158th OCCM.

In 158th OCCM NERLDC requested members to give their comments by 31.07.19.

NERLDC may please intimate the status.

C. 20 Metering Status Review:

Agenda Description	Status as informed in 158th OCCM	Status
Distribution of 70 Laptops	NERTS informed in 158th OCC Meeting that distribution of Laptops to Assam, Meghalaya & Tripura are pending.	Status of Distribution and progress may be discussed. Laptop already distributed are without optical cable and relevant Software
Correction of Meter error at Lekhi, Ningthoukhong, Kohima, Dimapur(s), Deothang end and Silicon Factory end, Mokokchung end, Kopili end check meter, Imphal(PG) end.	Not yet corrected.	Target date of action to be decided.
SEMs to be Repaired/Procured	Due to inability of Vendor to repair Meters, decision to be taken to procure meter on urgent basis.	Target date of procurement to be decided.

Agenda Description	Status as informed in 158th OCCM	Status
Optical Cable issue at Agia	Action not taken.	Target date of action to be decided.

NERLDC/NERTS/All STUs may please intimate the status.

D. ITEMS FOR DISCUSSION

D.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			1.608	
Kopili			4.608	
Doyang			1.1871	
Loktak			1.019	

The outage of other generating stations may be approved considering the present water levels in reservoirs.

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

D.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 no shutdown would be granted to utilities not submitting DR/EL regularly.

The sub-Committee may kindly discuss and approve the transmission line outages proposed by Constituents for August,2019 – September,2019 which is available in the website of NERPC.

D.3 Estimated Transmission Availability Certificate (TAC) for the month of June,2019-July,2019:

NETC and POWERGRID have submitted the outage data for the month of June, 2019 - July, 2019. So the attributability of outage of the said elements may please be finalized.

Members may please discuss.

D.4 Assessment of TTC, TRM & ATC by SLDC on respective Inter-State Transmission Corridor

The forum requested all the SLDCs to carry out the TTC/ATC calculations and decided that SLDC Ar. Pradesh would give presentation in the next OCC.

Members may please discuss.

D.5 RGMO performance analysis of events

Decisions in the previous meetings:

- NERLDC to scan PMU records for any event prior to 11:55hrs on 05.02.2019 resulting in droop of frequency by more than 0.03 Hz.
- BgTPP Unit #II mechanical problem in Turbine to be rectified.
- On 05.06.19 Palatana & BgTPP couldn't sustain their response and decreased generation in 20-30s. Other generators did not participate at all. Forum requested all CSGS to submit their DAS data.
- NERLDC may highlight any additional events.

Members may please discuss.

D. 6 Reactive power capability/injection of generating stations:

In 158th OCCM, it was decided that by Aug 1st week reactive capability testing would be done for Palatana and subsequently schedule for testing for other ISGS will be prepared.

Members may please discuss.

D.7 Accurate Load forecasting by SLDCs as per IEGC c1.5.3 for better system operation

In 156th OCCM NERLDC presented the RMSE for Mar'19:

% Error with Actual Data (Forecasted by States)							
	Ar Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Tripura
Median	11	12	11	11	14	11	10

Forum decided that load forecast error will be monitored in OCC Meeting till the RMSE comes below 5%

Members may please discuss.

D.8 Patrolling protocols/guidelines:

In 158th OCCM, it was decided that a common format would be prepared by NERPC/NERLDC and circulated for comments from all transmission utilities. NERLDC mentioned that patrolling report of elements declared as Important Grid Elements to be submitted on monthly basis. List of Important Grid Elements is available at NERLDC website at <http://nerldc.in/IE.aspx>.

Members may please discuss.

D.9 Better weather forecasting for power sector by IMD:

In 158th OCCM it was decided that a list of stations would be prepared by NERLDC in consultation with the constituents of NER and submitted to IMD for feasibility check. Constituents of NER were requested to send name, address, mobile no, email id of nodal person of each constituents to NERLDC by 31st Jul19.

Members may please discuss.

AGENDA ITEMS FROM NERLDC:

D.10 Hand Tripping of 132 kV Aizwal - Tipaimukh and 132 kV Jiribam - Tipaimukh at Tipaimukh end

On 21.07.2019, testing work was performed on Tipaimukh S/Without prior intimation to NERLDC and subsequently lines emanating from Tipaimukh S/S i.e 132kV Aizawal-Tipaimukh and 132kV JiribamTipaimukh were hand tripped. This led to a vulnerable situation in Mizoram as the only connectivity to Mizoram was 132kV Aizawal- Kolasib since 132 kV Aizwal - Kumarghat T/L was under planned shutdown and 132 kV Silchar - Melriat D/C was under forced outage due to tower collapse. Due to this voltage in the Mizoram system went much below IEGC band.

NERLDC may please deliberate.

D.11 FSC of 400 kV Balipara-Bongaigaon-IV opening without intimation to NERLDC

It has been observed that FSC has been taken out of service several times without intimation to NERLDC. This decreases the reliability of ER-NER-NR corridor which is not desirable.

NERLDC may please deliberate.

D.12 New Outage Module of NERLDC

New outage module of NERLDC was made live on 12.06.2019. NERTS and Assam have started entering the avail shutdown request on the outage module. All the other utilities are requested to enter the outage request like Pre OCC, Post OCC, Emergency etc in order to run the outage module in full-fledged manner.

NERLDC may please deliberate.

D.13 Frequency and Volatage Oscillation in AGTCCPP

On 15.08.2019 Low Frequency and Voltage Oscillations were observed in Agatala PMU. On increasing the schedule as requested by AGTCCPP the oscillations died down. Whereas On 18.06.2019 Oscillation was observed even when the units of AGTCCPP were run in full generation. NERLDC has requested NEEPCO to take necessary actions vide letter no NERLDC/SO-1/AGTCCPP/2019/56/756 dated 18.07.2019.

NERLDC may please deliberate.

D.14 Intra-State lines being kept open

It has been seen the some of the important intrastate lines are kept open on daily basis, compromising the reliability of the NER grid. Some of the lines kept open are as follows:

- a. 132kV Palatana-Udaipur
- b. 132kV Rangia- Rowta
- c. 132kV Rangia-Siphajhar
- d. 132kV Sarusajai-Umtru 1, 2
- e. 132kV Kahilipara-Umtru 1, 2

On 18.07.2019 a Grid disturbance occurred in Tripura system leading to blackout of Monarchak and Rokiaand Udaipur Buses. Hence it was advised that in order to maintain the grid security and reliability 132kV Palatana-Udaipur line needs to be kept closed. But due to overloading in 132kV Monarchak –Rokia line the Monarchak generation needs to be backed down. Hence 132kV Palatana-Udaipur line has been decided to be kept closed except for two hours during peak .

Also the other mentioned important lines of Assam and Meghalaya kept open needs to be discussed so as to enable keeping these elements in operation.

NERLDC may please deliberate.

D.15 Ratification of PoC data:

Ratification of Technical and Commercial data for computation of PoC Charges and Losses for Oct to Dec'19 (Q3 of 2019-20)

The forum may please ratify.

D.16 Operating Procedure for NER

In compliance with Regulations 5.1(f) of IEGC, Operating Procedure for North Eastern Region for 2019-20 has been issued on 20th July'19. Password for opening the same can be obtained by mailing to nerldcso2@posoco.in.

NERLDC may please deliberate.

D.17 Erroneous SCADA data

As per CERC KPI for 2019-20, voltage profile of all 220 kV Stations in NER to be reported in CERC Voltage Deviation Report but it has been observed that SCADA data of many 220 kV stations is erroneous. AEGCL informed that there is communication failure at SLDC Assam due to burning of communication cards. AEGCL is requested to look into the matter and resolve the issue at the earliest. Till such time, SLDC Assam is requested submit the hourly voltage data of the 220 kV nodes to NERLDC on daily basis for onward reporting to CERC.

NERLDC may please deliberate.

D.18 Expiry of PSSE User License

Maintenance and Support(M&S) Contract for PSS/E User Licenses used by NLDC/RLDCs/SLDCs had expired in 2018. Renewal of the licenses used by POSOCO is in progress. NERLDC vide its letter to SLDCs dated 24.07.19 requested to communicate regarding their approval for renewal of M&S contract by 10th August'19 so that NLDC could negotiate about the same with M/s Siemens on their behalf on a better price.

NERLDC may please deliberate.

D.19 Subsystems not fulfilling N-1

List of Subsystems not fulfilling N-1 criterion is attached as **Annexure D.19**. Upgradation of Transmission System is required to ensure 24x7 supply.

NERLDC may please deliberate.

D.20 Availability of Hot Spare Units

CERC vide their communication on 6th July'19 directed POSOCO to collect the availability of Hot Spare Units installed in various stations on quarterly basis from all ISTS Licensees. NERLDC vide its letter to NERTS dated 01.08.19 requested to submit the data as per the enclosed format as **Annexure D.20** from first quarter of 2019-20.

NERLDC may please deliberate.

Metering Agenda

D.21 METER ERRORS:

Pair check error observed in following location, CT / PT error suspected.

- 1) Lumshnong end of Panchgram feeder, Lumshnong end reading zero value.

NERLDC may please deliberate.

D.22 High SEM Time Drift:

Time drift in SEMs may result in computational errors in Regional energy accounts & Weekly Loss. All constituents in whose premises the meters are installed are required to take corrective action for time correction whenever meter time drift > 1minute and submit weekly compliance report of the same to NERLDC.

The compliance report of many locations as detailed in **Annexure 3.3.a**, are not received by NERLDC and **Annexure 3.3.b** provides location details of Drift correction action not being done / weekly SEM data not sent.

NERLDC may please deliberate.

D.23 Data Collection issue at Deothang:

Sem data of Bhutan end is used for accounting by both ER and NER. For the week 22.07.19 to 28.07.19 sem data of Bhutan end was not sent by Monday.

Issue discussed with PGCIL over phone, but positive response yet to be received. Matter to be discussed and urgent action required for seamless accounting.

NERLDC may please deliberate.

Any other item:

Date and Venue of next OCC

It is proposed to hold the 160th OCC meeting of NERPC on second week of September, 2019. The date & exact venue will be intimated in due course.

Areas in NER where N-1 is not compliant

1 Arunachal Pradesh			
Sl No	Element	Effect	Cause
1	132 kV Balipara - Bhalukpong- Khupi S/C	Blackout of Bhalukpong and Khupi substation	Radial connection at Balipara
2	132 kV Ranganadi - Ziro S/C	Blackout of Ziro, Daporijo, Along, Pasighat, Roing, Tezu, Namsai	
3	132 kV Ziro - Daporijo S/C	Blackout of Daporijo, Along, Pasighat, Roing, Tezu, Namsai	
4	132 kV Daporijo - Along S/C	Blackout of Along, Pasighat, Roing, Tezu, Namsai	
5	132 kV Along - Pasighat S/C	Blackout of Pasighat, Roing, Tezu, Namsai	
6	132 kV Pasighat - Roing S/C	Blackout of Roing, Tezu, Namsai	
7	132 kV Roing - Tezu S/C	Blackout of Tezu, Namsai	
8	132 kV Tezu - Namsai S/C	Blackout of Namsai	
9	220 kV AGBPP - Deomali S/C	Blackout of Deomali	Radial connection of Deomali with AGBPP
2 Assam			
Sl No	Element	Effect	Cause
1	132 kV Gohpur - North Lakhimpur S/C	Black out of North Lakhimpur, Majilu, Dhemaji	Radial connection at Gohpur
2	132 kV North Lakhimpur - Majuli S/C	Black out of Majuli	Radial connection at North Lakhimpur
3	132 kV North Lakhimpur - Dhemaji S/C	Black out of Dhemaji	Radial connection at Lakhimpur
4	132 kV Dhaligaon - Jogigopa S/C	Black out of Jogigopa	Radial connection at Dhaligaon
5	132 kV CTPS - Bagjhap S/C	Black out of Bagjhap	Radial connection at CTPS (AS)
6	132 kV Samaguri - Khaliogaon S/C	Black out of Khaliogaon	Radial connection at Samaguri
7	132 kV Samaguri - Sankardevnagar S/C	Black out of Sankardevnagar and Diphu	Radial connection at Samaguri
8	132 kV Sankardevnagar - Diphu S/C	Black out of Diphu	Radial connection at Sankardevnagar
9	132 kV Jorhat - Panichokua S/C	Black out of Panichokua and Bokakhat	Radial connection at Jorhat
10	132 kV Panichokua - Bokakhat S/C	Black out of Bokakhat	Radial connection at Panichokua
11	132 kV Nazira - Sibsagar S/C	Black out of Sibsagar	Radial connection at Nazira
12	132 kV Haflong (PG) - Haflong	Black out of Haflong	Radial connection at Haflong (PG)
13			
14			
3 Manipur			
Sl No	Element	Effect	Cause
1	132 kV Loktak - Ningthoukhong S/C	Black out of Ningthoukhong Area of Manipur	132 kV Imphal - Ningthoukhong S/C and 132 kV Kakching - Kongba are kept opened
2	132 kV Kakching - New Moreh S/C	Black out of New Moreh (including Myanmar connection)	Radial connection New Moreh with Kakching
3	132 kV Kakching - Chandel S/C	Black out of Chandel	Radial connection of Chandel with Kakching
4	132 kV Loktak - Rengpang S/C	Black out of Rengpang	Radial connection of Rengpang with Loktak as 132 kV Jiribam - Rengpang S/C is kept opened
5	132 kV Jiribam - Jiribam (MA) S/C	Black out of Jiribam (MA)	Radial connection of Jiribam (MA) with Jiribam as 132 kV Jiribam - Rengpang S/C is kept opened
6	132 kV Yaingangpokpi - Kongba S/C	Black out of Kongba	Radial connection of Kongba with Yaingangpokpi as 132 kV Kakching - Kongba is kept opened.
7	132 kV Yaingangpokpi - Hundung S/C	Black out of Hundung	Radial connection of Hundung with Yaingangpokpi
4 Meghalaya			
Sl No	Element	Effect	Cause
1	132 kV Nangalbibra - Ronkhon	Black out of Ronkhon and Ampati	Radial connection at Nangalbibra
2	132 kV Mawlai - Sohra	Black out of Sohra	Radial connection at Mawlai
3	132 kV Umiam - RNB (ME)	Black out of RNB	Radial connection at Umiam (ME)
4	132 kV EPIP I - Shyam Cement	Black out of Shyam Cement	Radial connection at EPIP -I
5	132 kV EPIP I - Maithan	Black out of Maithan	Radial connection at EPIP -I
6	132 kV EPIP I - Pioneer Carbide	Black out of Pioneer Carbide	Radial connection at EPIP -I

5 Mizoram			
SI No	Element	Effect	Cause
1	132 kV Melriat - Zuangtui S/C	Black out of Zunagtui, Saitual, Khawzawl, Champai, Serchip and Lunglei	Radial connection of Zuangtui with Melriat
2	132 kV Zuangtui - Saitual S/C	Black out of Saitual, Khawzawl and Champai	Radial connection at Zuangtui
3	132 kV Saitual - Khawzawl S/C	Black out of Khawzawl and Champai	Radial connection at Saitual
4	132 kV Khawzawl - Champai S/C	Black out of Champai	Radial connection at Khawzawl
5	132 kV Aizawl - Serchip S/C	Black out of Serchip and Lunglei	Radial connection at Aizawl
6	132 kV Serchip - Lunglei S/C	Black out of Lunglei	Radial connection at Serchip
7	132 kV Kolasib - Bairabi S/C	Black out of Bairabi	Radial connection at Kolasib
8	132 kV Kolasib - Tuirial S/C	Black out of Tuirial	Radial connection at Kolasib
9	132 kV Kolasib - Serlui B S/C	Black out of Serlui	Radial connection at Kolasib

6 Nagaland			
SI No	Element	Effect	Cause
1	132 kV Kohima - Meluri S/C	Black out of Meluri and Kiphire	Radial connection at Kohima
2	132 kV Meluri - Kiphire S/C	Black out of Meluri and Kiphire	Radial connection at Meluri

7 Tripura			
SI No	Element	Effect	Cause
1	132 kV P K Bari - Kailashahar	Black out of Kailashahar	Radial connection at P K Bari

