



भारत सरकार Government of India

विद्युत मंत्रालय Ministry of Power

उत्तर पूर्वी क्षेत्रीय विद्युत समिति

North Eastern Regional Power Committee

एन ई आर पी सी कॉम्प्लेक्स, डोंग पारमाओ, लापालाङ, शिल्लोंग-७९३००६, मेघालय
NERPC Complex, Dong Parmaw, Lapalang, Shillong - 793006, Meghalaya

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No. NERPC/SE (O)/OCC/2019/5863-5900

Dated: November 27, 2019

To,

1. Managing Director, AEGCL, Bijuli Bhawan, Guwahati – 781 001
2. Managing Director, APDCL, Bijuli Bhawan, Guwahati – 781 001
3. Managing Director, APGCL, Bijuli Bhawan, Guwahati – 781 001
4. Director (Generation), Me. PGCL, Lumjingshai, Short Round Road, Shillong – 793 001
5. Director (Distribution), Me. ECL, Lumjingshai, Short Round Road, Shillong – 793 001
6. Director(Transmission), Me. PTCL, Lumjingshai, Short Round Road, Shillong – 793 001
7. Managing Director, MSPDCL, Secure Office Bldg. Complex, South Block, Imphal – 795 001
8. Managing Director, MSPCL, Electricity Complex, Keishampat, Imphal – 795 001
9. Director (Tech.), TSECL, Banamalipur, Agartala -799 001.
10. Director (Generation), TPGCL, Banamalipur, Agartala -799 001.
11. Chief Engineer (WE Zone), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791111
12. Chief Engineer (EE Zone), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791111
13. Chief Engineer (TP&MZ), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791111
14. Engineer-in-Chief (P&E), Department of Power, Govt. of Mizoram, Aizawl – 796 001
15. Chief Engineer (P), Department of Power, Govt. of Nagaland, Kohima – 797 001
16. CGM, (LDC), SLDC Complex, AEGCL, Kahilipara, Guwahati-781 019
17. Group General Manager, NTPC, Bongaigoan Thermal Power Project, P.O. Salakati, Kokrajhar- 783369
18. ED, NERTS, PGCIL, Dongtiah-Lower Nongrah, Lapalang, Shillong -793 006
19. ED (O&M), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
20. ED (Commercial), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
21. ED (O&M), NHPC, NHPC Office Complex, Sector-33, Faridabad, Haryana-121003
22. Vice President (Plant), OTPC, Badarghat Complex, Agartala, Tripura - 799014
23. GM, NERLDC, Dongtiah, Lower Nongrah, Lapalang, Shillong -793 006
24. Member Secretary, ERPC, 14 Golf Club Road, Tollygunge, Kolkata-700033
25. Chief Engineer, GM Division, Central Electricity Authority, New Delhi – 110066
26. Chief Engineer (NPC), NRPC Complex, Katwaria Sarai, SJSS Marg., New Delhi - 110016

Sub: Minutes of 162nd OCC Meeting.

Sir/Madam,

Please find enclosed herewith the minutes of 162nd OCC Meeting held at Kaziranga on the **15th November, 2019** for your kind information and necessary action. The minute is also available on the website of NERPC, www.nerpc.nic.in.

Any comments/observations may kindly be communicated to NERPC Secretariat at the earliest.

Encl: As above

भवदीय / Yours faithfully,

B. Lyngkhoi
Director/ SE

Copy to:

1. CGM, AEGCL, Bijuli Bhavan, Guwahati - 781001
2. CGM, APGCL, Bijuli Bhavan, Guwahati - 781001
3. CGM, DISCOM, Bijuli Bhavan, Guwahati - 781001
4. Head of SLDC, Me.ECL, Lumjingshai, Short Round Road, Umjarain, Shillong – 793 022
5. Head of SLDC, Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791 111
6. Head of SLDC, Department of Power, Dimapur, Nagaland
7. Head of SLDC, Electricity Department, Govt. of Manipur, Keishampat, Imphal – 795 001
8. Head of SLDC, Department of Power, Govt. of Mizoram, Aizawl – 796 001
9. Head of SLDC, TSECL, Agartala – 799 001
10. Chief Engineer(Elect), Loktak HEP, Vidyut Vihar, Kom Keirap, Manipur- 795124
11. Addl. GM (EED), NTPC Ltd., Bongaigoan Thermal Power Project, P.O. Salakati, Kokrajhar- 783369
12. DGM (C&M), OTPC, 6th Floor, A-Wing, IFCI Tower -61, Nehru Place, New Delhi – 110019.



Director/ SE

North Eastern Regional Power Committee

MINUTES OF THE 162nd OPERATION COORDINATION

SUB-COMMITTEE MEETING OF NERPC

Date : 15/11/2019 (Friday)
Time : 14:00 hrs
Venue : "Infinity Resorts", Kaziranaga.

The List of Participants in the 162nd OCC Meeting is attached at **Annexure - I**

Member Secretary, NERPC welcomed the participants to the 162nd OCC meeting.

He highlighted the training requirement of personnel from the State utilities and requested the state utilities to formulate training requirement and send the same to NERPC for further action. He stated that as per the deliberations in the previous meetings the following issues demand urgent action of the forum:

(ii) In order to facilitate system maintenance shutdowns of some critical elements of NER grid, shutdown may be accommodated by NERLDC in the long-term interest of the grid.

(iii) Some projects like the diversion of 132kV Dimapur-Imphal line by POWERGRID and the Installation of PLCC panels at Loktak by MSPCL have been delayed inordinately. These may be completed without any further delay by putting all efforts by the stakeholders.

Thereafter, Member Secretary requested Director, NERPC to take up the agenda for discussion.

A. CONFIRMATION OF MINUTES

**CONFIRMATION OF MINUTES OF 161st MEETING OF OPERATION COORDINATION
SUB-COMMITTEE OF NERPC.**

The Sub-committee confirmed the minutes of 161st OCCM of NERPC as no comments/observations received from the constituents.

ITEMS FOR DISCUSSION

B.1. ACTION TAKEN:

1. IMPLEMENTATION OF PROJECTS FUNDED FROM PSDF:

The status as informed in 162nd OCC:

State	R&U scheme	ADMS	Capacitor Installation	SAMAST**	Line Differential Protection
Ar. Pradesh	Package-I NOA issued Finance dept concurrence not given. P-II tender opened. P-III tender by Nov'19. Station-wise status to be updated *	TPA to be signed by Govt. of Ar. Pradesh by 22.11.2019.	-	Reply against TESG queries to be sent.	-
Nagaland	All completed except for PLCC. Station-wise status to be updated.	TPA completed, A/c opened. Fund requisition to be sent to NLDC.	-	Reply against TESG queries to be sent.	Lines identified. Under DPR preparation stage.
Mizoram	Not updated due to absence of representative	Not updated due to absence of representative	To reply to TESG queries.	To reply to TESG queries.	Lines identified for installation of DPR viz. 132kV Aizawl - Luangmual and 132kV Kawmzawl - Khawiva.
Manipur	By Nov'19 Station-wise Status report to be submitted	By Nov'19 A/C will be opened and subsequently requisition for funds.	Approval awaited for NIT	To reply to TESG queries.	Lines identified. LDP for 132kV Imphal-Imphal and 132kV Jiribm-Jiribam proposed. Under DPR preparation stage.
Tripura	Station-wise status to be updated *	Contract agreement signed. Draft TPA with Govt of Tripura. TPA & A/C opening by Nov'19	Study to be carried out in consultation with NERLDC.	To reply to TESG queries.	Lines not yet identified. To be taken up in Sub-group.

Assam	Station-wise status to be submitted for 48 stations by Nov'19	TPA by Nov'19	-	Appraisal Committee approved.	Lines identified. Under DPR preparation stage.
Meghalaya	MePTCL Station-wise status updated MePGCL - Station-wise status to be updated.	TPA completed and A/C opened. Requisition for first tranche given to PSDF. Work at SLDC & 2 stations completed.	-	Appraisal Committee approved.	LOA issued. Fund awaited.

Deliberation of the sub-Committee:

Sr. GM, NERTS, Misa opined that procurement should be item-wise and execution status should be station-wise.

Representatives from Ar. Pradesh & Nagaland stated that due to competitive bidding, ADMS is being implemented at less than the sanctioned/approved cost. They enquired whether the surplus may be used for laying OPGW for the lines connecting stations under ADMS.

Director(O) assured that for successful implementation and considering the long term prospects of ADMS the same would be looked into.

Upon detailed deliberation it was decided that SAMAST tender/RfP would be called in two parts:

- (i) Tender for Meter+AMR: The Scope of work would only be for Assam and Meghalaya.
- (ii) Tender for IT Infrastructure and Software at SLDC:

The Scope of work would be for all seven states and LOA for only Assam, Meghalaya. Subsequently LOAs will be issued iro States who will receive the approvals for PSDF.

The Sub-Committee noted as above.

Action: All state utilities/NERPC.

2. Long Outage of Important Grid Elements:

Name of the Element	Name of Utility	Status as informed in 161 st OCC	Status as informed in 162 nd OCC
63MVAR Reactor at Byrnihat to replace with 80MVAR Reactor	MePTCL	Agreed by NLDC/NPC	Agreed by NLDC/NPC

<p>132kV Dimapur - Imphal (out since 25.07.18)</p>	<p>NERTS</p>	<p>NERTS updated the following Status: Foundation: 23/28 Erection: 17/28 Stringing: Yet to start 7 spans RoW Sufficient funds not released by NHIDCL. Also landslide is very frequent.</p> <p>DoP, Nagaland – In case required the tower may be diverted to two more locations. Erection, stringing simultaneously. DoP, Nagaland willing to assist in RoW. Forum decided that a Special Meeting be convened in presence of NHIDCL.</p>	<p>NERTS updated the following Status: Foundation: 23/28 Erection: 19/28 Stringing: Mobilization done for clearance of vegetation along realigned ROW. Stringing to start from 18th Nov 2019.</p> <p>ROW constraint still exists for three locations and associated spans. Continuous rainfall and landslide triggered road blockade, is seriously affecting the pace of work. 04 Nos. Towers at Loc. 355, 358, 366 and 367 damaged in recent times due to heavy landslide. Moreover One No. Newly casted foundation (loc. 377) has been damaged due to landslide. These additional locations too needs reconstruction / rectifications for overall restoration of the line. Sr. GM, NERTS, Misa stated that possibility of soil strata got disturbed due to heavy soil cutting by NHIDCL which has resulted indiscriminate land sliding. EE, DoP Nagaland stated that for Kohima zone Re-survey may be done and further</p>
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			informed that on 20.11.2019 a Special meeting between DoP, Nagaland and NHIDCL has been agreed for discussion regarding re-routing of the line.
220kV Sonabil-Samaguri-I	AEGCL	NIT not completed, insulators TS under re-consideration.	NIT by Nov'19
132kV Srikona-Panchgram(out since 14.01.2019)	AEGCL	Survey yet to be completed. Soil testing by Nov'19	Pile foundation may be required. LOI for soil testing soon.
63MVAR L/R for 400kV Palatana-Silchar Ckt-I (out since Apr'19)	OTPC	Waiting for material, expected by Dec'19	By Dec'19

The Sub-Committee noted as above.

Action: MePTCL, NERTS, AEGCL, OTPC.

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

SN	Name of element	Actions to be taken	Concerned Utilities	Status as informed in the 161 st OCC Meeting	Status as informed in the 162 nd 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	<u>LDR</u> : Bids are under technical evaluation. <u>Impedance Measurement</u> : To be completed by 30.11.19	<u>LDR</u> : Technical evaluation completed. Under commercial evaluation stage. Award by Dec, 2019 <u>Impedance Measurement</u> : To be completed by 30.11.19
2	132kV AGTCCPP-Kumarghat	GPS to be procured and time synchronization of relay to be done	NEEPCO	Dec'19	Dec'19
3	132kV P.K. Bari-Kumarghat	Installation of Line differential relay	NERTS	<u>LDR</u> : Bids are under technical evaluation.	Technical evaluation completed.

				Award by Nov'19	Under commercial evaluation stage. Award by Dec, 2019
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The Sub-Committee noted as above.

Action: NEEPCO, NERTS.

4. Furnishing of various data for reliable operation of grid:

S N	Data reg.	Target deadline	Status as informed in the 161 st OCC Meeting	Status as informed in the 162 nd OCC Meeting
1	Furnishing Technical and Commercial data for computation of PoC Charges and Losses for January to March'20 (Q4 of 2019-20)	15.10.19	Manipur, Assam, Meghalaya, Nagaland submitted. Rest 3 states to be submitted. Tripura by 23.10.2019, Ar. Pradesh- by Oct'19 end, Mizoram – already sent NHPC , NEEPCO to submit	Manipur, Assam, Meghalaya, Mizoram and Nagaland submitted. Rest 2 states to be submitted. Tripura by Nov,2019, Ar. Pradesh- by Nov'19 end, NHPC & NEEPCO to submit
2	Furnishing details regarding GT Tap Positions of ISGS and other generators. Required for studies related to reactive power capability testing	15.10.19	Kopili HEP, BgTPP, Palatana GBPP submitted. AGBPP, Khandong & DHEP submitted. RHEP & Pare not submitted Data from State Generators also required.	Pare not submitted. Data from State Generators also required
3	Furnishing Nodewise half hourly data monthly Required for studies pertaining to Real Time Market	By 10 th of the month	Received from Arunachal, Manipur, Mizoram. TSECL will submit by Oct'19. Assam, Meghalaya and Nagaland to submit	Received from Arunachal, Manipur, Mizoram. TSECL will submit by Nov'19. Assam, Meghalaya and Nagaland to submit from next month.

The Sub-Committee noted as above.

Action: All utilities as above.

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

As per the data made available by NERLDC, the grid performance parameters for October, 2019 are given below:

NER PERFORMANCE DURING OCTOBER, 2019

States	Energy Met (MU)		w.r.t. Sep,19 % inc (+) /dec (-)	Energy Reqr. (MU)		w.r.t. Sep,19 % inc (+) /dec (-)	% surplus (+) /shortfall (-) of energy In Oct,19
	Oct-19	Sep-19		Oct-19	Sep-19		
Ar. Pradesh	56.99	57.65	-1.14	57.3	57.96	-1.14	-0.54
Assam	812.59	956.16	-15.02	863.39	1050.84	-17.84	-5.88
Manipur	74.06	72.92	1.56	74.51	73.33	1.61	-0.60
Meghalaya	173.57	164.64	5.42	173.57	164.64	5.42	0.00
Mizoram	66.76	67.38	-0.92	67.14	67.74	-0.89	-0.57
Nagaland	64.98	66.29	-1.98	65.34	66.64	-1.95	-0.55
Tripura	134.74	141.11	-4.51	134.98	141.94	-4.90	-0.18
Region	1383.69	1526.15	-9.33	1436.23	1623.09	-11.51	-3.66

States	Demand Met (MW)		w.r.t. Sep,19 % inc (+) /dec (-)	Demand in (MW)		w.r.t. Sep,19 % inc (+) /dec (-)	% surplus (+) /shortfall (-) of demand In Oct,19
	Oct-19	Sep-19		Oct-19	Sep-19		
Ar. Pradesh	137	152	-9.87	137	152	-9.87	0.00
Assam	1770	1900	-6.84	1770	1980	-10.61	0.00
Manipur	183	182	0.55	197	190	3.68	-7.11
Meghalaya	338	336	0.60	338	336	0.60	0.00
Mizoram	102	91	12.09	102	91	12.09	0.00
Nagaland	148	156	-5.13	150	176	-14.77	-1.33
Tripura	291	298	-2.35	291	303	-3.96	0.00
Region	2878	3070	-6.25	2998	3183	-5.81	-4.00

REGIONAL GENERATION & INTER-REGIONAL EXCHANGE IN MU

Month---->	Oct-19	Sep-19
Total Generation in NER (Gross)	1529.250	1651.289
Total Central Sector Generation (Gross)	1061.841	1233.651
Total State Sector Generation (Gross)	467.409	417.638
Inter-Regional Energy Exchange		
(a) NER-ER	6.93	19.39
(b) ER-NER	350.22	429.01
(c)NER-NR	371.27	412.35
(d)NR-NER	0.00	0.00
© Net Import	-27.98	-2.73

AVERAGE FREQUENCY (Hz)

Month---->	Oct-19	Sep-19
	% of Time	% of Time
Below 49.9 Hz	3.28	4.57
Between 49.9 to 50.05 Hz	77.06	75.25
Above 50.05 Hz	19.66	20.18
Average	50.01	50.01
Maximum	50.31	50.27
Minimum	49.67	49.85

Deliberation of the sub-Committee:

NERLDC gave a presentation on the grid performance for the month of October '19. NERLDC highlighted the Demand Met and Energy Met during October 2019. Frequency and Voltage pattern for October, 2019 were highlighted along with MVAR Vs Voltage graph for Palatana, BgTPP & AGTCCPP.

NERLDC expressed concern over high number of GDs in the Region (22 nos. of GDs in October'19) and large numbers of line tripping in the region. NERLDC informed that most of these GDs have taken place due to tripping of 132kV Balipara-Tenga-Khupi line.

The forum noted the significant number of GDs in the region, however, also noting that transient tripping cannot be avoided altogether, but forum agreed that all constituents must avoid relay-mal-operations and unnecessary tripping.

The Sub-Committee noted as above.

C. ITEMS- STATUS REVIEW

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

During 162nd OCC meeting, the status as informed by different beneficiaries is as follows:

SN	Items	Status as given in 161 st OCC Meeting		Status as given in 162 nd 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	2 months time to reclaim the oil values. By 30.12.2019	Already submitted	Jan'20	Already submitted
2	Kameng HEP of NEEPCO two units (2 x 150 MW) Next two units (2x150 MW)	Nov'19 or Dec'19	CEA clearance available	Dec'19	CEA clearance available
3	132kV Monarchak – Surjamaninagar D/C of TSECL	By Dec'19, tower erected 128/152. Foundation completed 145/152. Stringing 15.5 km completed.	To be submitted to NERLDC.	May'20	To be submitted to NERLDC.

4	220/132 kV, 160MVA ICT-II at Balipara	Accessories and Oil arrived at site. Main unit reached Kisangunj. By Nov'19	To be submitted to NERLDC.	Transformer arrived at site. Dragging to foundation plinth under progress. Commisioning Target: March 2020	To be submitted to NERLDC.
5	220/132 kV, 1x160 MVA ICT with GIS Bay at Kopili	Test charging shall be delayed due to damage to the Power House and Switchyard after failure of Penstock at Kopili.	To be submitted to NERLDC.	Test charging shall be delayed due to damage to the Power House and Switchyard after failure of Penstock at Kopili.	To be submitted to NERLDC.
6	Dedicated 33kV feeder at Khliehriat Substation from Lumshnong.	A date will be fixed by NERPC in consultation with MeECL and NERTS	Not applicable.	Date to be finalized.	Not applicable.
7	220kV Balipara-Sonabil-2	AEGCL- Non availability of terminal equipment at Balipara.	To be submitted to NERLDC.	Dec'19	To be submitted to NERLDC.
8	Bay at Agia S/S for 132kV Agia-Nangalbibra Ckt #II by AEGCL	LOA issued on 27.06.19. Panel not reached site.	To be submitted to NERLDC.	ERL panel supplier expect to deliver in 15 days. By Dec'19	To be submitted to NERLDC.
9	80MVAR B/R at RHEP by NEEPCO	To be taken up in the next SCM.	-	Discussed in 2nd NERSCT	To be submitted to NERLDC.
b. Elements under breakdown/upgradation					
10	Up-gradation of 132 kV Lumshnong-Panchgram line	TESG queries submitted	Not applicable.	TESG queries submitted	Not applicable.
11	PLCC Panels at Loktak end of Loktak - Ningthoukhong 132 kV feeder and	Nov'19. NERPC to write to MD, MSPCL for expediency.	Not applicable.	Nov'19. NERPC to write to MD, MSPCL for expediency.	Not applicable.

	Loktak - Rengpang 132 kV feeder				
12	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	DPR submitted. Other upgradation works to be included in DPR	Not applicable
13	220/132 kV 30 MVA ICT at Mokokchung	Drawings are under approval. March' 2021	To be submitted to NERLDC	Drawings are under approval. March' 2021	To be submitted to NERLDC
14	Upgradation of 132kV Karong- Kohima (till Mao) by MSPCL	-	-	It was decided that MSPCL would upgrade the entire line. DoP Nagaland to take up with MSPCL for entire upgradation by MSPCL. Loc.No. 189 to 228 i.e., 9km stringing left. Shutdown applied for.	-
15	Upgradation of 132kV Lekhi- Chimpu and Lekhi bus by DoP Ar. Pradesh	Mar'2020	-	Mar'2020	-
16	Upgradation of CT at Lekhi for 132kV Lekhi-Chimpu by DoP Ar. Pradesh	Mar'2020	-	Mar'2020	-
17	Installation of LDP for 132kV AGTCCPP-Agartala D/C & 132kV PKBari-Kumarghat by NERTS	Bids are under technical evaluation.		Technical evaluation completed. Under commercial evaluation stage. Award by Dec 2019	-
18	Procurement of GPS at AGTCCPP &time synchronization for 132kV AGTCCPP- Kumarghat by NEEPCO	Dec'19	-	Dec'19	-

19	Diversion of 132kV Bawktlang-Sihhmui	OBD done. Bids are under technical evaluation. LOA by Nov'19.	-	Technical Evaluation completed. Award by 20 th Nov 2019. Work completion: 28 th Feb 2020	-
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The Sub-Committee noted as above.

Action: All utilities as above.

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

Data availability as updated in the 161st OCCM is given below:

Name of the state /utility	Data Availability (in%)	Issues	Status as updated in the 162 nd OCCM
DoP Ar. Pradesh	Not updated	-	Same problems persisting. CDAC to visit critical locations immediately.
Assam	62%	-	
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	0% detailed report to be submitted	After TARA devices are connected the SEMs they hang.	
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	12.5%.	Network available 24x7. Device fault suspected.	

Deliberation of the sub-Committee:

Director, NERPC informed that CDAC personnel could not avail necessary clearance in time for attending the 162nd OCC meeting at Kaziranaga and assured that they would be impressed upon to attend the next OCCM positively.

The Sub-Committee noted as above.

Action: CDAC/AII SLDCs/NERPC

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 160th OCCM, DGM, SLDC, TSECL informed the following status:

UFR details	Status as informed in the 160th OCCM.
For all existing UFR except SMNagar	By Oct'19
UFR at SMNagar	By Sep'19
<i>Additional UFR under Islanding Scheme-II</i>	<i>Status to be updated</i>

- UFR Inspection for Dimapur, Nagaland completed in the third week of September, 2019.
- UFR Inspection for Manipur in Nov'19.

Deliberation of the sub-Committee:

ED, NERLDC stated the following deviations observed in course of UFR Inspection and Testing already carried out in various state utilities:-

- (i) Improper records or no records are being maintained at Substation level.
- (ii) Recommendations not executed by the concerned utility.

The forum requested all the concerned utilities to maintain proper record for UFR operation at sub-station level. It was decided that recommendations of UFR Inspection would be summarised utility feeder-wise and monitored in OCC for implementation.

Director, NERPC informed that UFR inspection for Manipur would be carried out in Nov'2019. He requested MSPCL, NERTS to extend necessary co-operation in this regard.

The Sub-Committee noted as above.

Action: DoP Nagaland, TSECL, MeECL, AEGCL, NERPC.

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.

The 159th OCC forum approved implementation of the pilot project upon resolution of the security concerns.

In 160th OCCM Director, NERPC once again requested NERLDC to obtain the approximate cost of the project so that the same may be approved by TCC/RPC.

In 161st OCCM NERLDC informed that quotation has been requested from the concerned agency and the cost would be informed in the next OCCM.

Deliberation of the sub-Committee:

NERLDC informed that the cost for the pilot project would be around Rs.6, 85,000/- (Rupees Six lakhs eighty five thousands only). The forum noted and recommended for TCC/RPC approval.

The Sub-Committee noted as above.

Action: NERLDC/NERPC.

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

In 161st OCCM NERTS informed that Work is in progress. Data already started reporting. Joint validation to be done by 15.11.19.

Deliberation of the sub-Committee:

NERTS informed that the Analog and Digital Data has started reporting. Additional new signals provided by RLDC being configured and validated. The same would be completed by 30.11.2019.

The Sub-Committee noted as above.

Action: NERTS

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.
- Network to be finalised based on the feedback of Operational load flow given by NERLDC
- Data collection & database building to be completed for Arunachal Pradesh and Nagaland.
- Prospective Go Live by Dec'19.

Deliberation of the sub-Committee:

Director, NERPC informed that PDMS project would Go Live by Dec'19. Prior to that necessary roles and permissions need to be assigned. He requested the respective utilities (nodal officers for PDMS) to assign the roles and responsibilities as per circulated formats.

The Sub-Committee noted as above.

Action: PRDC/All utilities.

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 – In 161st OCCM AEGCL informed that synchro-check facility is available in all BCUs and as such there is no requirement of Synchrosopes.

Sr.DGM NERTS opined that only in some pockets the synchroscope is required so that manually synchronization may be done with the main grid. Within 35degree, the phasors have to be separated. This intelligence is not given to BCU, so it is required for synchronization in case of post blackout situation. The forum requested AEGCL to proceed for Procurement of Synchroscopes for 13 Stations as per list.

AEGCL agreed to procure Synchronization trolley for 13 locations in Assam

- 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.

Deliberation of the sub-Committee:

Sr.GM, NERTS, Misa stated that in SAS stations BCU fulfills the role and so separate trolley not required. Further, the panels are not suitable for trolley connections. NERLDC informed that during restoration of the system after grid disturbance, synchronization of islands is very important for fast restoration of the system. In NER there have been few instances of failure of synchronization at SAS stations during restoration process when attempt to synchronize two islands was done remotely but then successful synchronization was achieved locally at the substation by using synch. trolley. Thus, NERLDC has been striving for having local synchronization facility apart from remote synchronization facility in some substations, which are strategically important during restoration process. After detailed deliberation it was decided that along with the black start testing of AGBPP, demonstration of Synchronisation using BCU would be done at Mariani (PG) for which NERLDC will arrange isolation / separation system into two parts and POWERGRID will synchronize the systems in SAS.

DoP Ar. Pradesh intimated that approval for procurement of sync. trolley is expected by Nov'19

The Sub-Committee noted as above.

Action: AEGCL, DoP Ar. Pradesh, NERLDC, NERTS.

C.8 Phase shift errors in PMU:

In 155th OCCM Director, NERPC informed that in the Sub-group meeting held on 05.04.19, it was agreed that the matrix of phase comparison for each of the stations vs Bongaigaon will be prepared by NERLDC. NERLDC informed that work is underway and would be completed by April'19.

In 156th OCCM, NERLDC informed that the matrix has been prepared, with deviations being categorized in three groups: (i) +120 deviation, (ii) -120 deviation, (iii) matching w.r.t Bongaigaon.

Sr.GM(AM), NERTS informed that for some ASEB stations 90 deg deviation is present which has to be checked

Within one week the data w.r.t. connection changes will be collected by NERTS in conjunction with AEGCL and rectification would be completed by May'19 for substations with +/- 120 degree and planning of activities to correct the phase shift of - 90 or +150 degree group shall be made by May 2019.

In 157th OCCM Sr. GM(AM), NERTS assured that the complete schedule of works would be prepared by 14th June, 2019. The forum requested AEGCL to do likewise.

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.

In 159th OCCM Sr.DGM, NERTS informed that action plan shall be submitted within 31.08.19. AGM, SLDC, AEGCL informed that after commissioning of SAS there is no spare panel, TB. So the CT, CVT terminals have to be brought from Kiosk to CR. After detailed deliberation, it was decided that NERTS would visit and analyze for Samaguri the pre-requisites for changing the connections.

The following status was updated by NERTS/AEGCL in the 161st OCCM:

- Bongaigaon - Completed except for New Siliguri-2 feeder.
- Misa - 220 kV Side Completed.
- Dimapur, Mariani, Silchar, Salakati - yet to be started, possible completion by 30.09.19.
- Samaguri sub-station under upgradation under PSDF. Re-connection to the PMU will be done after completion of upgradation work.

Deliberation of the sub-Committee:

Status as updated in the 15th NETeST meeting:

- Issues in some of the stations have been rectified. NERLDC may confirm or update what to be done for rest of the stations based on the feedback by NERTS after corrections, as per system study group of NERLDC.
- Site drawing for PMU connection has been handed over to Assam which would be adopted (for rewiring etc.) by AEGCL during SAS upgradation in four stations.

The Sub-Committee noted as above.

Action: AEGCL/NERTS

C. 9 Tentative schedule for Black Start & Restoration Procedure Mock exercise in NER during the year 2019

In 160th OCCM the mock black start schedule status was as below:

DHEP - Black start successful, but synchronization failed. The entire procedure would be repeated in the next mock exercise.

AGBPP - Emergency service board 6.6kV has UPS, STG connection. With STG in service, STG auxiliaries being fed from the emergency board.

When STG not in service black start can be done. Segregation of aux supply from emergency board would be taken up internally by NEEPCO.

NERLDC mentioned that the mock black start exercises are very important for ensuring preparedness during restoration after grid disturbances and it is mandated as per regulations. With the present configuration, mock exercise at AGBPP shall be carried out when STGs are not in service. NEEPCO assured that all efforts would be made to segregate the aux supply of the STGs from the emergency service board and provisions would be made for black start exercise at AGBPP.

Deliberation of the sub-Committee:

The following status was given:

- LOKTAK - On 31.10.19 Bus-A charged. Tentative date for the Black Start Nov'19.
- AGBPP - NEEPCO informed that segregation of auxiliary supply has been completed. Presently 2-3 mins are required for shifting of generator from one bus to another and minimum 100MW load is required at 132kV level.
- RHEP - To be done after Bus A is restored.

The Sub-Committee noted as above.

Action: NEEPCO, NHPC, NERLDC

C. 10 DVAR and PSS at AGTCCPP:

In 156th OCCM Sr. Manager, NEEPCO informed that installation and commissioning would be complete by July'19.

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.

In 159th OCCM DGM, NEEPCO informed that OEM Engineering would visit AGTCCPP shortly. It was requested to intimate NERLDC/NERPC during OEM presence to enable visit by a team.

In 160th OCCM DGM, NEEPCO informed that the GTG-IV is still under S/D due to load coupler problem. M/s ABB visited Plant and did some partial work of DVAR of the Unit. They will again visit in the month of Sept'19 and accordingly NERLDC/NERPC will be informed. NERLDC requested NEEPCO to intimate the action plan for installation of DAVR/PSS in the other units at AGTCCP.

In 161st OCCM NEEPCO informed that AGTCCP has been requesting the vendor i.e. M/s ABB to install DVR & PSS in GTGs one by one, and tentative visit is in Nov'2019.

Deliberation of the sub-Committee:

DGM, NEEPCO informed that due to outage of Kopili HEP, shutdown of AGTCCP cannot be taken at the moment. The commissioning timeline of DAVR & PSS shall be decided after return of Khandong HEP.

The Sub-Committee noted as above.

Action: NEEPCO.

C. 11 Bus Configuration issues for various sub-stations:

Status as on 160th OCC Meeting:

- 132kV Transfer Bus at Loktak HEP - CEA clearance obtained. Manpower engaged in Unit-III restoration. To be completed by Oct'19
- 400kV Bus A at RHEP - (i)NEEPCO to procure new 400kV CB for Bus Coupler Bay including mandatory spares.

(ii) NEEPCO to check /ensure the healthiness of all the elements required to take Bus-A into service. Followings bay equipments to be checked:

- Two sets of Center Break Isolator(Bus Coupler)
- Four sets of Pantograph isolators
- One Set CT(Bus Coupler)
- One set CVT(Bus-A)

Shutdown was requested by NEEPCO. OCCM gave in-principle of the shutdown on 22.09.19 & 23.09.19 tentatively. However, exact date would be based on in-flow conditions and consent of DoP Ar. Pradesh in real time.

- 132kV Bus Coupler at Pavoi Bus coupler is in operation. The protection system is yet to be confirmed by Assam

Deliberation of the sub-Committee:

- 132kV Transfer Bus at Loktak HEP - Charged on 30.10.2019.
- 400kV Bus A at RHEP - elements of Bus-A tested. Report submitted.

Procurement of the following initiated:

- Four sets of Pantograph isolators
- One Set CT(Bus Coupler)
- One set CVT(Bus-A)
- 132kV Bus Coupler at Pavoi - It was informed that 132kV BNC-Pavoi Ckt-I & 132kV BNC-Pavoi Ckt-II protection has been completed by NERTS. However protection transfer to Bus-Coupler (in case of Line CB outage) to be checked by NERTS. This would be completed by Nov'19.

The Sub-Committee noted as above.

Action: NEEPCO/NERTS.

C. 12 Status of recommendations reg GD-Vs on 03rd & 20th April,2019:

Recommendations	Status as informed in the 161 st OCCM	Status as informed in the 162 nd OCCM
Investigation of conductor failure for 400kV Palatana-Silchar D/C (Scope NERTS)	Report submitted to NERPC.	Report submitted to NERPC.
Study for reactive compensation in Tripura System(scope of TSECL)	NERPC vide letter dated 11.10.2019 has written to CMD, TSECL for forthwith submission of data.	NERPC vide letter dated 11.10.2019 has written to CMD, TSECL for forthwith submission of data. No update from TSECL
Identification of feeders for additional UFR based load shedding under Islanding Scheme-II(Scope of TSECL)	NERPC vide letter dated 11.10.2019 has written to CMD, TSECL for procurement & installation of UFRs.	NERPC vide letter dated 11.10.2019 has written to CMD, TSECL for procurement & installation of UFRs. No update from TSECL
Standalone EL for integration of relay at AGTCPP by Oct'19(Scope of NEEPCO)	By Mar'2020	By Mar'2020
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.	NEEPCO Relays already receipt at site. Physical verification of the same yet to be done in presence of ABB personnel. Both Generator and line & bus bar protection will be made functional with DR & EL by April'20. NERTS The REL-670 relay at Khandong for Kopili – II feeder is planned	NERTS The REL-670 relay at Khandong for Kopili – II feeder is planned to be upgraded by Dec'19.

	to be upgraded by Dec'19.	
NHPC to procure standalone EL for Loktak HEP	Under process exact date of LOA to be confirmed	Under process exact date of LOA to be confirmed
Revised SPS-3 scheme offer sought from GE by NERTS	GE to submit detailed break up by 31.10.19.	M/s GE is yet to submit the detailed breakup. Target: by 30.11.2019
Impedance measurement for 400kV Paltana-Silchar D/C, 400kV Silchar-Azara, 400kV Silchar – Byrnihat	Impedance measurement shall be completed by 30.11.19.	Impedance measurement shall be completed by 30.11.19.
Line parameters to be matched at Silchar, Azara and Byrnihat.	Line parameters matched and reviewed. The reviewed parameters shall be given to Azara by 30.11.19 for implementation.	The reviewed parameters shall be given to Azara by 30.11.19 for implementation.
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	Auto-reclosure operation erratic. Joint visit of NERTS/AEGCL to Azara by Oct'19.	Joint visit done. But the problem of delayed appearance of voltage while charging through Tie CB could not be identified. AEGCL to take up with OEM

The Sub-Committee noted as above.

Action: NERTS, AEGCL, TSECL, MePTCL, NEEPCO, NETC.

C.13 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 as informed in the 161st OCCM	Status as informed in the 162nd OCCM
1	Unit -1 unit bus incomer breaker to be restored at the earliest	By Sep'19	Completed
2	Providing alternate cooling water source to compressors	Unit-1 overhead tank connection made, when unit-2 will go under s/d then connection would be completed. S/D planned Apr'2020	Unit-1 overhead tank connection made, when unit-2 will go under s/d then connection would be completed. S/D planned Apr'2020

The Sub-Committee noted as above.

Action: NTPC.

C.14 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 159th OCCM NERLDC informed that comments have been received from OTPC and SLDC Meghalaya. AGM, SLDC, AEGCL informed that comments of SLDC Assam would be sent shortly. Meghalaya presented the study done by them on Tap Optimization Study to NERPC and NERLDC. Their effort of study was appreciated by the forum. Members requested NERLDC to send reminder mail.

In 160th OCCM AEGCL informed that the comments would be sent by 06.09.2019.

Deliberation of the sub-Committee:

NERLDC stated that tap position for 400/220kV 315MVA ICTs at Byrnihat is to be changed from 9 to 6. MePTCL agreed in principle subjected to approval from authority.

The Sub-Committee noted as above.

Action: MePTCL

C.15 Better weather forecasting for power sector by IMD:

Decisions/deliberations in the previous meetings:

- IMD to conduct survey for each of the individual utilities.
- Nodal officers for all the utilities nominated in the 159th OCCM.
- All utilities agreed to install AWR in their stations. All utilities are requested to submit the station list by November 2019.

Deliberation of the sub-Committee:

NERLDC informed that IMD has visited Assam, Tripura and selected the stations where AWS can be installed. The forum requested the nodal officers from other utilities to cooperate with logistic support so that the same exercise may be carried out at the earliest.

The Sub-Committee noted as above.

Action: All utilities as above.

C.16 Requirement of model data for simulation of power system stability and dynamics

NLDC vide letter dated 27th Aug 2019 to NPC and RPCs highlighted the requirement of inclusion of new formats in addition to the existing formats by CTU and STU/SLDCs for

collection of data pertaining to dynamic parameters of new generators and other equipment. In case of already connected plants, SLDC/STU may issue the necessary instruction to the concerned generator with modified template and request them to furnish the information latest by Dec 2019.

In 160th OCCM, CGM, NERLDC stated for new elements being commissioned the data may be submitted to NERLDC and for old generators the available data is also to be submitted

Deliberation of the sub-Committee:

NERLDC requested all the CSGS and State generating utilities to submit the available data by 31.12.2019. The forum decided to drop the agenda in the meantime and review the same station-wise later on.

The Sub-Committee noted as above.

Action: NEEPCO, NHPC, NTPC, OTPC, all state generating utilities.

C.17 Special Protection Scheme at RHEP

Discussion in the subgroup meeting of NERPC held on 07.08.19 as follows:

NERPC informed that as per decision in the 158th OCCM a team visited RHEP on 05.08.19 and suggested the following SPS:

(i)With tripping of one ICT, one unit of RHEP is to be tripped.

(ii)SPS to be taken into service when all 3 units of RHEP are generating.

NEEPCO requested that tripping of one unit of Pare HEP to be included in the SPS when both units at Pare are generating.

The matter was referred to OCC for approval.

The 160th OCC forum agreed in principle and requested NEEPCO to implement the SPS.

Deliberation of the sub-Committee:

NEEPCO requested that tripping of one unit of Pare HEP may also be included in the scheme. The forum approved. Further NEEPCO informed that the scheme would be implemented by Feb'20. The forum decided to drop the agenda item and review later on.

The Sub-Committee noted as above.

Action: NEEPCO.

C.18 Frequent trippings in Arunachal Pradesh system:

In 159th OCCM Sr.GM(SO-I), NERLDC informed that in the months of June-July'19 frequent trippings were observed in the 132kV RHEP-Ziro-Daporizo-....corridor and

lines connected to Lekhi. He requested the intervention of the forum for proper analysis of the same. Director, NERPC stated that participation of DoP Ar. Pradesh in the Sub-group meeting on Protection and PCC is extremely lacklustre. He requested DoP Ar. Pradesh to ensure adequate participation from concerned transmission division in all the meetings.

SE(SO&PSC), DoP Ar. Pradesh stated that there is no cohesiveness in data collection since engineers are scattered and onsite training is required. It was decided that after 15th August, 2019 scheduling of training is to be done, then DoP Ar. Pradesh to send personnel to Nirjuli(POWERGRID) for practical hands-on training. The following officers were nominated for the training:

- >Moli Kamki, AE, DoP Ar.Pradesh
- >Hibu Bama, EE, DoP Ar.Pradesh
- >Duyo Richo, AE, DoP Ar.Pradesh

In 161st OCCM EE, SLDC, DoP Ar.Pradesh informed that official order has been issued to the aforesaid officers to attend the training at Nirjuli Station. Sr.GM(AM), NERTS informed that no executives have attended the training at Nirjuli Station. The forum viewed the matter very seriously and requested NERPC to take up the matter with CE, DoP Ar.Pradesh.

Deliberation of the sub-Committee:

DoP Ar. Pradesh representative communicated that SE (SO&PSC), DoP, Ar. Pradesh has committed to send personnel to POWERGRID Biswanath Chariali/Misa for training by Nov'19. The forum requested DoP Ar. Pradesh to co-ordinate with NERTS RHQ for the same. AEGCL also proposed to arrange training on different numerical relays to officials from DoP AP, MSPCL, DoP Nagaland, P&ED Mizoram & TSECL.

The Sub-Committee noted as above.

Action: DoP Ar. Pradesh/NERTS.

C.19 Automatic Generation Control (AGC) in Indian Grid:

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

In 161st OCCM NERLDC informed that the following stations need to have AGC as per the Country wide plan:

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

Director, NERPC stated that the pilot for BgTPP is in advance stage and only the Communication items are to be installed at plant level. Further, he stated that the matter has been discussed in detail in the 15th NETeST meeting.

Deliberation of the sub-Committee:

NERLDC informed that BgTPP pilot started on 07.10.2019. NERLDC also presented the plant wise communication status till date. The forum noted that Fiber connectivity was discussed in detail in the 15th NETeST and except for Loktak all the plants have Fiber connectivity. All concerned utilities agreed to take timely action as per the relevant order of Hon'ble CERC.

The Sub-Committee noted as above.

Action: NERTS/NERLDC/NEEPCO/NHPC.

C.20 Running of RHEP Unit in Night time:

In 161st OCCM NERLDC suggested that one unit of RHEP may be run during the night time subject to availability of water. This will avoid opening of 400kV RHEP-BNC line one circuit. It was noted that Technical minimum of RHEP unit is 110 MW. NEEPCO agreed to confirm whether units can be run at a lower load.

Deliberation of the sub-Committee:

NERLDC stated that in order to avoid opening of the 400kV RHEP-BNC in the late night hours RHEP generation is required. DGM, NEEPCO informed that RHEP DC is around 2.5 to 3 MU and RHEP cannot go below 110MW because of vibration problem as thrust bearing bolt has sheared. The same was advised by BHEL(OEM).

The forum unanimously agreed that Off-peak generation is not in the interest of the beneficiaries and peak hours full schedule is required.

After detailed deliberation it was decided that NERLDC will try to schedule maximum in peak hours and rest of the generation at high voltage period according to the system conditions in real time.

The Sub-Committee noted as above.

Action: NEEPCO/NERLDC.

C.21 SCED Refund

In 161st OCCM NERLDC informed that as per CERC order 08/SM/2019 dated 28.09.2019; 400Cr is to be distributed on Pan-India basis. The submission of Account details of all the state utilities/Power Departments was requested by NERLDC for smooth transfer of money.

Deliberation of the sub-Committee:

APDCL informed that a/c details submitted was submitted on 24.10.2019. NERLDC informed that payment for beneficiaries could not be released due to non-submission of account details by Tripura and P&ED Mizoram.

The Sub-Committee noted as above.

Action: TSECL/P&ED Mizoram.

C. 22 Metering Status Review:

Agenda Description	Status as per 161 st OCCM	Status as per 162 nd OCCM
Distribution of 70 Laptops	NERTS informed that distribution of Laptops have been completed. Free software has been mailed to NERPC official for distribution to the concerns.	To be dropped.
Correction of Meter error: <i>(i) Erratic reading:</i> Ningthoukhong end, Kohima end , Panchgram end <i>(ii) Sign Change:</i> Dimapur I & II state end, Deothang end, Silicon Factory end, Mokokchung end, Kopili end (check meter).	i) NERTS informed that meters have been found ok. Checking of CT/PT is to be done by respective s/s. Respective representatives will co-ordinate with s/s ii) NERTS informed that they will look into the matter	Feed back from respective representatives Requested for CT/PT connections in Substations. 3 SEMs time drift more than 15min in Nagaland already replaced
SEMs to be Procured	NERTS informed that it is under process and gone for financial concurrence. NIT expected on 1 st week of November, 2019.	Concurrences completed. Tender issue expected by 31.12.19.

The Sub-Committee noted as above.

Action: NERTS.

D. I T E M S 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	724.9	39.75	0.588	68
Kopili			0	Will be "0" until further intimation.
Doyang	321.65	30	0.462	65
Loktak	768.06	130	1.6	81

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

Deliberation of the sub-Committee:

NERLDC highlighted that due to unavailability of Kopili HEP and Khandong HEP, constituents should plan for procurement of power for proper portfolio management.

NERLDC also highlighted that proper planning of Hydro Generation needs to be done as water available for generation is only for upcoming 2-3 months.

NEEPCO informed that for Khandong Stg-2 there would be no generation from 19.11.2019 to 25.11.2019 because of opening of sluice gate at Umrong dam for inspection of canals. Thereafter on 01.12.2019 IR values would be tested and if found satisfactory then synchronization would be done.

The Sub-Committee discussed and approved 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:

In 160th OCCM NERLDC presented a report on the shutdown approval timeline(s) followed in OCC of other regions. It was observed that M+2 month's shutdown was approved in Mth month. For eg. shutdowns from 01.11.2019 to 30.11.2019 is approved

in the OCC of September, for which requisition has to be submitted by 5th of September, 2019 i.e. 5th day of the Mth Month, M being the month in which OCC Meeting is held. By following this practice there will be no overlapping of shutdown dates as happening at present. Members unanimously agreed to the practice in other RPCs.

Deliberation of the sub-Committee:

The sub-Committee discussed and approved the transmission line outages proposed by Constituents for December, 2019 which is available in the website of NERPC.

The Sub-Committee noted as above.

Action: All utilities.

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

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

Deliberation of the sub-Committee:

NERTS & NETC informed that the outage data has been submitted.

The Sub-Committee noted as above.

Action: NERTS/NETC.

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

NERLDC has assessed the state control area wise, state subsystem wise and group of control-area wise TTCs for NER Grid. The study results will be presented during the meeting. SLDCs are requested to check and validate the TTC of their control areas as computed by NERLDC.

Deliberation of the sub-Committee:

NERLDC informed that if, any issue or clarification required by the states, they can contact NERLDC.

The Sub-Committee noted as above.

Action: All state utilities.

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.
- BgTPP DAS data to be submitted for event dated 05.06.19.
- For event dated 21.08.2019 DAS data to be submitted by Kopili HEP, Khandong HEP and Palatana GBPP.
- Reasons for non-sustenance of positive generation of Unit –II & III at BgTPP to be furnished.

Deliberation of the sub-Committee:

NERLDC informed that on 01st November 2019, at 11:16hrs a RGMO event triggered due to loss of generation of the quantum of 1644MW at Akal station. Upon triggering of RGMO the following units demonstrated Positive as well as more than desired response : (i) Loktak Unit 1

The following units demonstrated next to nothing response:

(i) Palatana GTG/STG, (ii) BgTPP Unit 1 (iii) Loktak Unit 3

The following units demonstrated negative response:-

BgTPP Unit 2 & Unit 3

OTPC stated that at that point of time Module-I was in full load operation (Module-II not in service) due to 5% margin initial increase but not sustained because due to dip in frequency the gas compressor drives less gas. The forum requested BgTPP to revert with the reasons for unsatisfactory RGMO operation.

NERLDC informed that DAS data not received from any plant other than Palatana. The forum requested all generators to provide their DAS data whenever required by NERLDC.

The Sub-Committee noted as above.

Action: NTPC.

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.

In 159th OCCM, NERLDC informed that Palatana is absorbing and generating MVAR as per grid requirement. The testing would be done on 14th August, 2019. NERLDC requested NTPC to give a schedule of reactive testing for BgTPP.

In 160th OCCM, NERLDC informed that the reactive capability testing for Palatana was successfully completed on 14.08.19. All the recommendations and decisions during the testing and recorded in MoM are to be implemented by OTPC at the earliest. It was

decided that testing for BgTPP would be done in the 3rd week of Sep'19. NEEPCO and OTPC in unison informed the members that AGTCCPP is generating continuous MVAR in limit of their capability. This is highly undesired as it is causing undue stress on the machine as well as excitation system. Member Secretary, NERPC informed that the matter would be taken up by the Committee and measures would be suggested by the same.

In 161st OCCM the following status was intimated:-

- Palatana GBPP - OTPC requested for a joint meeting w.r.t. implementation of tap changing suggestion as per the reactive capability testing results.
- BgTPP - Testing completed on 30th of Sept. Load angle limiter setting to be increased. NTPC is in the process of consultation with OEM.
- AGTCCPP was requested to suggest a date for the testing at their plant.

Deliberation of the sub-Committee:

- Palatana GBPP - Joint meeting date to finalized mutually by NERLDC & OTPC. Tentatively by Nov'19.
- BgTPP - Matter referred to OEM.
- AGTCCPP - DGM, NEEPCO stated that AGTCCPP is generating maximum MVAR continuously, because of high MVAR drawal by Tripura. So as such Reactive power generation need not be tested. ED, NERLDC empathized with the concern of NEEPCO and informed that reactive power testing is very important at AGTCCPP and requested NEEPCO to explore solutions (if any).

DGM, NEEPCO once again re-iterated that due to continuously high MVAR generation from AGTCCPP, the Excitation system is stressed and may fail beyond measure. He requested the forum to take remedial action in this regard.

The Sub-Committee noted as above

Action: NTPC, OTPC, NERLDC.

D.7 3-phase Auto-reclosure for 400kV Silchar-Azara & 400kV Silchar - Byrnihat:

In 160th OCC Meeting NERPC informed that in view of repeated 2-ph/3-ph tripping of 400kV Silchar-Azara & 400kV Silchar-Byrnihat due to back flashover, the 3-ph AR is imperative to be implemented. Sr.GM(SO-II), NERLDC opined that in case of simultaneous tripping of both of these lines, chances of successful 3-ph AR would be remote due to islanding of the Southern grid from NER grid(different frequency). After detailed deliberation it was decided that in order to increase the reliability of the system, 1-ph & 3-ph AR would be implemented for both the 400kV Silchar-Azara and

400kV Silchar-Byrnihat. Forum requested NERLDC to give suggestion regarding which end check sync and dead sync to be implemented. NERPC informed that this would be further referred to CTU & CEA for concurrence.

In 161st OCCM NERLDC opined that in view of separation of grid(s), the 3 phase AR may not be implemented. Sr.DGM, NERTS stated that 3-ph AR for the 2 lines may be implemented with dead sync at Azara and Byrnihat and check sync at Silchar. This would address the concern of NERLDC. Further SOTF will act for 3-ph through fault at Azara and Byrnihat.

Director, NERPC informed that the proposal was mooted in view of frequent faults due to back flashover affecting more than 2 phases. The forum requested NERPC to take views of CEA in the matter and referred the item to next OCCM for further discussion.

Deliberation of the sub-Committee:

NERLDC informed that the Single phase Auto-reclosure is non-functional at Azara end of 400kV Silchar-Azara and such steps may be taken to restore the same alongwith other anomalies at Azara, prior to implementation of 3-ph AR.

Director, NERPC stated that the views of CEA have been sought i.r.o. of 3-ph AR for 400kV Silchar-Azara and 400kV Silchar-Byrnihat.

The Sub-Committee noted as above.

Action: NERPC.

D.8 Accurate Load forecasting by SLDCs as per IEGC c1.5.3 for better system operation

RMSE for load forecast of actual data in comparison to that forecasted by the states for the month of July'19 is as follows:

% Error with Actual Data (Forecasted by States)							
Day	Ar. Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Tripura
Median	23	15	9	11	34	11	15

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

In 160th OCCM CGM, NERLDC informed that POSOCO in association with IIT, Guwahati is developing methodology to forecast at the regional level. He requested all SLDCs to be proactive for the same.

The Sub-Committee noted as above.

Action: all SLDCs.

D.9 Continuous shutdown of 220 kV Bus Coupler & 4 x 33 MVA 220/132kV ICT-1 along with associated bays w.e.f 06/09/2019 and shifting of 01 set of 220 kV Bus PT at Dimapur w.e.f 02/09/2019 at Dimapur Substation.

Under the NERSS VIII, SS01 package, the 220/132 kV Dimapur substation is being upgraded from AIS to GIS including replacement of existing 4x33.33 MVA, 220/132 kV single phase unit transformer by 1 x 160 MVA, 220/132 kV 3-phase unit and addition of 1 No 1x160 MVA, 220/132 kV 3-phase transformer.

The existing 220/132 kV Dimapur substation is a conventional AIS substation having 220 kV bays with double main cum transfer scheme and 132 kV bays with single main and transfer bus schemes. Under the NERSS VIII project, all the existing 220 kV and 132 kV AIS bays shall be changed to GIS bays (Double main bus scheme) in the same existing switchyard by creating space for 220 kV GIS building, 132 kV GIS building and outer Gas Insulated Bushings after dismantling the existing tower/ beams/ equipment's along with structures. During this upgradation period, both the 220 kV & 132 kV bays shall be operated on single bus system and only 220 / 132kV 100 MVA ICT 2 shall remain in service. "

As per the proposed up-gradation and dismantling, only 220 KV Bus-A (towards the Transmission line side) will be in service. For construction of 200kV GIS Building and 132kV GIS building following assets at Dimapur substations shall be required to be dismantled.

- (1) 220/132 kV 4 X 33MVA ICT-1
- (2) 220kV ICT – 1 BAY
- (3) 132kV ICT – 1 BAY
- (4) 220kV BUS B
- (5) 220kV BUS COUPLER BAY

The substation layout diagram is attached for further reference.

The existing 220 kV PTs of Bus 1 & 2 are installed where the 220 kV GIS building is proposed to be constructed. As such 1 set of the bus PT is to be shifted to a convenient location towards ICT-2 area.

After shifting of the PT to the new location, dismantling works of the bus coupler bay and ICT-1 bays including the 4x33.33 MVA 1-Phase transformer will commence.

Once the above shutdown is approved, the shutdown shall continue till erection, testing and commissioning of the new GIS system which is February 2021 as per the approved L2 schedule.

Considering the above, It is proposed for Shutdown below mentioned assets under new construction activity related outage:

- a. Continuous Shutdown of BUS A w.e.f 01.11.2019 to 05.11.2019 for shifting of 1 set of 220 kV Bus PT as above.
- b. Continuous Shutdown of the 220kV/132kV 4x 33 MVA ICT – 1, 220 kV Bus -B and ICT-1 bays (Bay No.203 & 204)w.e.f 06/11/19 till erection, testing and commissioning of the new GIS system.

In 160th OCCM, NERLDC informed that during the period of shutdown, power restriction in Nagaland might be required in peak hours and hence concurrence of Nagaland will be necessary to approve the shutdown.

Further, NERLDC informed that as per system studies there will be severe low voltage problem in case of outage of other ICT in service at Dimapur. NERLDC opined that this shutdown would be allowed after restoration of the 132 kV Dimapur – Imphal line. NERTS requested NERLDC to check whether the low voltage issue could be avoided by changing the tap position of the ICTs in Nagaland Power System.

Director, NERPC requested NERLDC to conduct a detailed study so that the matter may be discussed in detail in the next OCCM in presence of officers from DoP Nagaland.

In 161st OCCM, NERLDC briefly stated the study results: Outage of ICT (N-1) 114kV at Dimapur with DHEP generation, 108kV at Dimapur without DHEP generation

In view of the low voltage at Dimapur node NERLDC suggested for reduction of load or MW constrained SPS at Nagaland. Further it was informed that the study was not done considering availability of 132kV Imphal-Kohima, 132kV Dimapur-Kohima and 132kV Karong-Kohima

EE, SLDC, DoP Nagaland informed that any spare or backup is not there for Nagaland. First shifting of towers from Kohima to Dimapur is required so that 132kV Dimapur-Kohima line is in service and Dimapur may draw from Kohima (2 towers displaced by landslide).

Further Nagaland may be allowed to draw via Imphal-Kohima(by using the erstwhile D-I line) at Dimapur. This is only in case of exigency.

Also Karong-Kohima shutdown may be deferred because Nagaland draws from Manipur in case of exigency.

The forum decided that no SPS is required and the shutdowns may be granted subject to restoration of 132kV Dimapur-Kohima line and return of shutdown after upgradation of 132kV Karong-Kohima (HTLS).

Deliberation of the sub-Committee:

Sr.GM, NERTS, Misa informed that mobilization has already been done by M/S Godrej and Shut Down was applied w.e.f. 02.09.2019 but, till date, shut down is not approved.

He further stated that all such delay may be recorded in MOMs of OCC so that necessary justification of delay in project execution may be furnished to CERC by POWERGRID which is mandatory. The forum agreed to the proposal.

EE, SLDC, DoP Nagaland opined that after Hornbill festival shutdown may be given subject to availability of the two links viz. 132kV Dimapur-Kohima and 132kV Karong-Kohima. He updated the status of the 132kV Dimapur-Kohima line: one tower left. Target Nov'19 may be by 10.12.2019. RoW issue remaining to be resolved.

The forum requested for study of N-1 contingency of 100MVA ICT with availability of 132kV Dimapur-Kohima, 132kV Imphal-Kohima and 132kV Karong-Kohima.

After detailed deliberation the forum agreed upon a tentative schedule for shutdown(s) connected to outage of 220/132kV ICT-1 at Dimapur:

(i) NEEPCO shall complete installation of Numerical relay for 132kV Doyang-Dimapur D/C by 27.11.2019. Shutdown for installation of relay for 132kV Doyang-Sanis shall be after Hornbill festival i.e. after 10.12.2019.

(ii) 132kV Karong-Kohima upgradation to be completed and line returned to service by 30.11.2019.

The Sub-Committee noted as above.

Action: NERLDC, MSPCL, NERTS.

D.10 Outage of lines and ICT at RHEP for replacement of breakers:

Director, NERPC informed the forum that during the Committee visit to RHEP on 05th August, 2019 it was brought to notice that all hydraulic CBs at RHEP are to be replaced due to non-availability of spares. Considering the urgency of the work, NEEPCO has already given the order and materials are deemed to be delivered shortly. He requested for the views of the forum keeping in view the power supply condition to Arunachal Pradesh. SE (SO&PSC), DoP Ar. Pradesh stated that 132kV RHEP-Ziro line is the life line for the state and it is not possible to grant shutdown of the line. After detailed deliberation it was decided that NEEPCO would be requested to explore the option of keeping at least one 400/132kV ICT in service and 132kV RHEP-Ziro in service (by means of Transfer Bus and Bus Coupler) at all times.

Deliberation of the sub-Committee:

DGM, NEEPCO requested that the item be deferred for discussion. The forum decided to drop the agenda in the meantime and review later on.

The Sub-Committee noted as above.

D.11 Monitoring of Critical Elements affecting the reliability and security of the Grid

Critical Elements which affect NER/ER TTC/ATC Values and Cause major Grid Disturbance		
SI No	Name of Element	No of Tripping during Oct'19
1	400 kV Bongaigaon - Byrnihat S/C	NIL
2	400 kV Bongaigaon - Azara S/C	NIL
3	400 kV Silchar - Azara S/C	3 times
4	400 kV Silchar - Byrnihat S/C	NIL
5	400 kV Palatana - Silchar Ckt-I	1 time
6	400 kV Palatana - Silchar Ckt-II	1 time
7	400/132 kV, 125 MVA ICT I at Palatana	1 time
8	400/132 kV, 125 MVA ICT II at Palatana	1 time
9	132 kV Palatana - Surajmaninagar S/C	NIL
10	400 kV Balipara - Misa D/C	NIL
11	400/220 kV 1x315 MVA and 1 x 500 MVA ICTs at Misa	NIL
12	132 kV Imphal - Dimapur S/C	NIL
13	132 Khandong - Kopili D/C	NIL

Deliberation of the sub-Committee:

NETC informed that tripping of 400 kV Bongaigaon – Byrnihat line & 400 kV Bongaigaon – Azara line was due to hanging rope used for OPGW stringing. This issue was attended.

Tripping of 400 kV Azara – Silchar line was due to vegetation infringement near Shillong area. S/D may be availed for attending the same. Forum agreed for shutdown with Generation backing down as per system studies.

Director, NERPC cited the non-grant of shutdown by keeping the reliability margin unnecessarily high. He opined that this is resulting in transient tripping of important lines. The forum concurred.

ED, NERLDC opined that the high number of GDs is reducing confidence on part of NERLDC. He requested that shutdown may not be approved for utilities not submitting DR. He informed that due to non-availability of DR, proper tripping analysis is very

difficult, due to this while doing system studies regarding shutdown approval, it is very difficult to assure the N-1 security of the system.

The Sub-Committee noted as above.

D.12 Intra State Lines being kept open

Important intrastate lines are being kept open, compromising the reliability of the NER grid. Some of the lines kept open are as follows:

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

Action plan to mitigate the issues leading to opening the above mentioned lines is to be discussed so that these lines may be kept in service round the clock.

In 160th OCCM SLDC, AEGCL informed that the 132kV Rangia - Rowta and 132kV Rangia-Sipajhar is being kept open due to system constraints. NERPC informed that for items c & d above issue will be resolved after LILO at Killing. NERLDC requested for joint study along with Assam for a & b above.

In 161st OCCM AGM, SLDC, AEGCL informed that the 220kV BTPS-Rangia line is not stable, i.e. why the lines kept open so that Bhutan line does not trip.

After detailed deliberation, it was decided that joint Study of Assam and NERLDC would be carried out on 29.10.2019.

Deliberation of the sub-Committee:

AGM, SLDC, AEGCL informed that presently all the lines are in closed condition. The forum decided to drop the agenda item.

The Sub-Committee noted as above.

D.13 Reactivation of SPS -1

The SPS-1 associated with tripping of generation of both Modules of Palatana CCGT (2 x 363.3 MW) is deactivated at present. The same needs to be activated to Avoid Violation of ATC of NER-ER Corridor. Details of the SPS are attached as **Annexure D.13** for reference.

In 161st OCCM it was decided that SPS-1 is to be reviewed at Palatana & Silchar for actual status and then turned on. The forum agreed to take up the matter for implementation in the next OCCM.

Deliberation of the sub-Committee:

NERTS informed that SPS-1 is turned ON at Silchar Substation. OTPC requested for scheme from Silchar end so that signal send may be reviewed at Palatana. NERTS agreed to share the same.

The Sub-Committee noted as above.

Action: NERTS, OTPC

D.14 Implementation of revised SPS-3 scheme

As per the Minutes of 20th TCC & 20th NER Power Committee Meetings held at Guwahati on 12th Sept., 2019 (Agenda No. D 20), the said SPS is to be discussed again in OCC and it is to be put up in the 21st TCC/RPC Meeting.

Deliberation of the sub-Committee:

Director, NERPC recounted the deliberations of the 20th TCC/NERPC meeting, wherein it was decided that the scheme of SPS-3 with generation reduction for Palatana to be reviewed in OCC forum.

OTPC representative stated that 400kV corridor is tripping prone and this triggers SPS-3 condition frequently. Due to this machines come under tremendous stress and their health is affected.

ED, NERLDC stated SPS-3 is necessary for secure operation of the NER Grid. As the generation in the southern NER pocket remains high for most of the time of the day, generation reduction is the only option for successful operation of SPS 3. He stressed upon the forum to implement revised SPS-3 scheme based on flow based scheme at the earliest to ensure reliable and secure operation of NER Grid. Until the implementation of revised scheme, existing SPS-3 to be kept in service as per the real time requirements.

Member Secretary, NERPC decided that the Special Committee tasked for study of backing down generation at Palatana (and other matters) would review the SPS-3 scheme on lines suggested by the 20th TCC/NERPC. The Committee would submit its report by Nov'2019.

The Sub-Committee noted as above.

Action: NERPC

D.15 Restoration of Assets damaged at Kopili HEP due to failure of Penstock:

220kV Misa-Kopili ckt I, II, III and 132kV Kopili-Khandong D/C are under outage since 07.10.2019. This is considerably reducing reliability of NER grid.

To finalise action plan for early restoration of the said connectivity, it is proposed to form a senior level task force consisting of members from NERPC, NERLDC & NERTS and convene a meeting of the task force at the earliest.

In 161st OCCM it was decided that Member Secretary, NERPC would constitute committee of NERLDC, NERTS and NERPC so that a concise approach may be devised for quick restoration of the links.

Deliberation of the sub-Committee:

Director, NERPC informed that Special Committee Meeting was convened on 06.11.2019. Five areas were identified for early restoration. It was also decided that 220kV System at Kopili is to be handed over to NERTS at the moment for restoration.

Sr. DGM, NERTS stated that the clearing work has started and switchyard area has to be cleared manually. Likely completion by Jan'20.

Further, he informed that separate kiosk is to be installed in lieu of the damaged ones and the requirement of 132/33kV ICT for Auxiliary Supply. After detailed deliberation, the following were decided:

- (i) Diversion of Kiosk from Silchar to Kopili.
- (ii) 220V DCDB and charger to be tested
- (iii) Particular milestone bar chart to be prepared by NERTS and submitted forthwith.

The Sub-Committee noted as above.

Action: NERTS/NEEPCO

D.16 Declaration of High Demand Season and Low Demand Season

In 161st OCCM NERLDC informed that as per latest tariff order High demand season and Low Demand Season is to be determined on a regional basis. Discriminatory Tariff would accordingly be applied from Mar'20. High Demand 3 months, Low Demand 9 months. Off-peak 20hrs and Peak 4hrs. The forum decided to take up the matter for discussion in the next OCCM.

Deliberation of the sub-Committee:

The following were decided:

- (i) High demand – July to September
- (ii) Low Demand – January to June, October to December

The Sub-Committee noted as above.

D.17 PSS tuning testing for AGTCCPP and Tuirial

Oscillations have been observed near Agartala on 28.10.2019. Also on 27.10.2019 oscillation was observed on Badarpur PMU. During that period, sufficient MVAR

fluctuation was observed in Turrial Unit-1. Oscillation subsided when Turrial Unit-1 generation reduced and faded as Unit-1 was withdrawn. Hence PSS tuning test need to be performed in order to check such oscillations.

Deliberation of the sub-Committee:

DGM, NEEPCO informed that on 02.10.2019 BHEL tuned the PSS at Turrial HEP and the oscillation was observed on 27.10.2019. He assured that BHEL will be called again to plant for rectification. ED, NERLDC requested all generators to do Step response test and results to be submitted to NERPC & NERLDC

The Sub-Committee noted as above.

Action: NEEPCO

D.18 Mobile team for Protection Issues

Engaging a common expert agency for providing services like thorough checking or attending on need basis of protection issues in all the constituents of NER.

Deliberation of the sub-Committee:

ED, NERLDC opined that the majority of the items as per visit of Joint team under PCC Sub-group indicates that suggested remedies does not require procurement. These things under scope of the utility require the intervention of an expert team. So the same may be done by a common agency which shall visit various substations of NER (Irrespective of the ownership) to address the protection issues in short period of time.

Director, NERPC stated that most of the lacunae/deficiencies are addressed by the utilities well within time after suitable discussion in the Sub-group. Only those events where root cause is difficult to identify/problem persists for a significant amount of time, PCC/Sub-group visit or intervention is required.

After detailed deliberation, the forum unanimously agreed for formation of team including representatives from NER utilities. It was also agreed that team will be attending protection related issues at all locations of NER irrespective of the ownership. NERPC will write to all utilities for nominations by Nov'19.

The Sub-Committee noted as above.

Action: NERPC

D.19 Shortfall declaration by States

Shortfall data provided by the states will be segregated into shortfall due to less availability and shortfall due to intrastate issues. This data will provide a clear reason of the shortfall in future.

Deliberation of the sub-Committee:

NERLDC informed that presently Shortfall is not categorised under Daily Report and the same is resulting in improper analysis and planning. Therefore the Shortfall data submitted as part of Daily Report is to be categorised into the following henceforth:

- (i) Shortfall due to less availability
- (ii) Load crash due to harsh weather
- (iii) Intrastate Transmission/Transformation Constraints

Director, NERPC stated that Demand for Oct'19 (vis-a-vis Oct'18) was considerably lower for Nagaland & Tripura.

DoP Nagaland informed that numerous shutdown i.r.o. IPDS scheme were taken by Distribution Wing for Dimapur load centre in Oct'19. Hence the considerable reduction in demand.

DGM, SLDC, TSECL informed that the demand reduction was primarily due to mass coverage in LED distribution and improvement in efficiency thereto.

The Sub-Committee noted as above.

Action: All SLDCs.

D.20 Line Reactors to be made switchable

At present, most of the line reactors are not switchable. When the line with reactor is in service, it is not possible for switching operation of the reactor without opening of the line.

It is proposed to make all line reactors switchable.

Deliberation of the sub-Committee:

Sr.GM, NERTS stated that the matter would be referred to Engineering consultants of PGCIL to work out the requirements/requisites. The forum agreed in principle for making all the line reactors switchable and requested POWERGRID/CTU to take up the item in the next NERSCT/RPCTP.

The Sub-Committee noted as above.

Action: POWERGRID.

D.21 Finalization of Bus Bar Scheme of new nodes and tie connectivity of new elements approved in Standing Committee Meeting

To ensure the reliability in NER Grid Operation, it is proposed that to finalize the Bus Bar Scheme of new nodes and tie connectivity of new elements approved in Standing Committee Meeting, the respective ISTS Licensee shall discuss with a Sub-Committee

comprising of members from NERPC, NERLDC and NERTS before commencement of Engineering activities.

For example: 132 kV Melriat, 132 kV Kopili and 132 Mokokchung (PG) has Single Bus Bar Scheme which reduces the reliability of the system. Also, tie Configuration of 400 kV Balipara (PG) Substation is not proper. To avoid the same, discussion of the schemes in the proposed Sub-Committee meeting is very crucial.

Deliberation of the sub-Committee:

Director, NERPC informed that the Bus Bar Scheme/Connectivity of Elements prior to charging would be included by CEA in appropriate regulation. Till then it was decided that the "Bus Bar Scheme/Connectivity of Elements prior to charging" would be discussed in OCC forum.

The Sub-Committee noted as above.

Action: NERLDC/NERTS/all STUs.

D.22 Status of ongoing projects in states

All the SLDCs are requested to intimate status of the ongoing projects on monthly basis.

Deliberation of the sub-Committee:

NERLDC requested all the utilities to submit the status of on-going projects on monthly basis.

The Sub-Committee noted as above.

Action: all State utilities.

D.23 SCADA data of AGBPP

SCADA Data of AGBPP is not available since 07th Oct'2019. AGBPP, being an important generator, its data is vital for system operation and also voltage data is needed for sending VDI Report to Hon'ble CERC.

Deliberation of the sub-Committee:

NERTS informed that the SCADA data of AGBPP has been restored. The forum decided to drop the agenda item.

The Sub-Committee noted as above.

D.24 PLCC link issues

(i) Presently, there is no communication link with Deomali. It is proposed to establish PLCC link between Deomali and AGBPP at the earliest for tele-protection and SCADA data. The approved VSAT for Arunachal Pradesh may be kept in Deomali.

(ii)As per visit of Committee ,comprising of members from NERPC, NERLDC, NERTS and P&ED Mizoram, to Kolasib Substation on 30.10.19, it was observed that PCC Link of Badarpur, Tuirial and Bairabi feeders are out of service. The PLCC link is to be restored at the earliest to ensure secure and reliable operation.

Deliberation of the sub-Committee:

(i) Director, NERPC stated that as per discussion in 15th NETeST meeting, DoP Ar. Pradesh proposes to implement VSAT project for Ar. Pradesh. He requested DoP Ar. Pradesh to clarify whether the project envisages to install VSAT for one station or seven (7) stations.

(ii) Tuirial HEP- HoP already taken up the matter. Would be restored by Nov'19.

132kV Badarpur-Kolasib - NERTS personnel to visit Kolasib. Resolution by Nov'19.

132kV Bairabi-Kolasib - Could not be updated due to absence of P&ED Mizoram representative.

The Sub-Committee noted as above.

Action: DoP Ar.Pradesh/NEEPCO/NERTS/P&ED Mizoram.

D.25 Ratification of data required for computation of PoC Charges & Losses

Ratification of Technical and Commercial data for computation of PoC Charges and Losses for Jan to March'20 (Q4 of 2019-20) –To be ratified by utilities. PoC data for ratification is attached in **Annexure D.25**

Deliberation of the sub-Committee:

The forum ratified the PoC data for Q4(2019-20).

State	Ratified demand figure as per 162nd OCCM
Arunachal Pradesh	156
Assam	1550
Manipur	235
Meghalaya	384
Mizoram	99
Nagaland	140
Tripura	378

Sl. No.	Entities	Ratified Generation Data as per 162nd OCCM
1	AGTPP, NEEPCO	135
2	Doyang, NEEPCO	62
3	Kopili, NEEPCO	0
4	Kopili 2, NEEPCO	25
5	Khandong, NEEPCO	44
6	Ranganadi, NEEPCO	401
7	AGBPP_Kathalguri	230
8	Loktak, NHPC	105
9	Palatana GBPP	680
10	Bongaigaon_NTPC	628
11	Pare	110
12	Arunachal Pradesh	0
13	Assam	252
14	Manipur	0
15	Meghalaya	243
16	Mizoram	68
17	Nagaland	12
18	Tripura	178

The Sub-Committee noted as above.

D.26 Non - Availability of Synchronization Facility at Kolasib

As per visit of Committee ,comprising of members from NERPC, NERLDC, NERTS and P&ED Mizoram, to Kolasib Substation on 30.10.19, it is observed that Synchronization facility is not available at Kolasib. It is very important that all 132 kV level and above Stations are provided with Synchronization facility. Necessary measures may be taken to procure synchronization facility at Kolasib.

Deliberation of the sub-Committee:

Could not be discussed due to absence of P&ED Mizoram representative.

The Sub-Committee noted as above.

Action: P&ED Mizoram

D.27 Upgradation of 33 kV Kameng – Khupi line to 132 kV level

Due to the radial connection of 132 kV Balipara – Tenga – Khupi line, Khupi load has been affected 7 times along with loss of Generation from Dikshi HEP during Oct 2019 due to tripping of 132 kV Balipara – Tenga Line.

To avoid black out in Khupi area and loss of Dikshi Generation due to tripping of 132 kV Balipara – Tenga Line, it is proposed to upgrade 33 kV Kameng – Khupi line to 132 kV level.

Deliberation of the sub-Committee:

After detailed deliberation the forum approved the upgradation of 33kV Kameng-Khupi to 132kV level and requested NEEPCO to work out the modalities for the same.

The Sub-Committee noted as above.

Action: NEEPCO

D.28 Mock Test for SPS in NER

In order to check the operation of Special Protection Schemes (SPS) as designed, periodic mock exercises of all the SPSs shall be performed. The schedule for each SPS needs to be discussed.

Deliberation of the sub-Committee:

After detailed deliberation the forum decided the following:-

(i)Periodic Mock test (frequency once in six months) to be conducted for all SPS. However, the scope would not cover physical tripping of elements/generating units. Prior to a Mock Test the modalities and objectives for testing to be determined by Sub-group.

(ii) A Special Meeting on SPS would be convened by NERPC in the 3rd week of Nov'19 for review of SPS-5 to SPS-9.

(iii) Testing of SPS-1 to SPS-4 agreed in the 1st week of Dec'19 by the team constitutes earlier for mock testing

The Sub-Committee noted as above.

Action: NERLDC/NERPC.

D.29 Submission of the Annual Load Generation Balance Report (LGBR) for Peak as well as Off-peak scenarios and the Annual outage plan for 2020-21 by 31.12.19 as per IEGC

As per IEGC, each SLDC shall submit LGBR for its control area, for peak as well as off-peak scenario, by 31st December for the next financial year, to respective RPC Secretariat. The annual plans for managing deficits/surpluses in respective control areas shall clearly be indicated in the LGBR submitted by SLDCs. As per IEGC, all SEBs/STUs, Transmission Licensees, CTU, ISGS, IPPs, MPPs and other generating stations shall provide to the respective RPC Secretariat their proposed outage plan in writing for the next financial year by 31st October of each year. These shall contain identification of each generating unit/transmission line/ICT etc., the preferred date for each outage and its duration and where there is flexibility, the earliest start date and latest finishing date.

Deliberation of the sub-Committee:

Director, NERPC requested all the utilities to submit the LGBR data for 2020-21 ASAP.

The Sub-Committee noted as above.

Action: all generating utilities/DISCOMs/SLDCs.

D.30 High DSM outstanding

As per clause 10 of DSM Regulation 2014, the DSM payment by the respective Constituents shall be made within 10 days of issuance of DSM statement by NERPC. In case of default, RLDC may implement clause 25A of Open Access Regulation wherein the respective Constituent will be barred from STOA transactions. Also, addition of penal interest component on outstanding amount may mount higher burden on the Constituents.

The status of DSM outstanding as on 31st October'2019 is indicated below –

Regional Entity	DSM Outstanding
Ar. Pradesh	17.05 Crore
Assam	14.01 Crore
Manipur	10.1 Crore
Nagaland	11.85 crore

Mizoram	11.49 Crore
Tripura	4.71 Crore

It is requested to clear the outstanding DSM payment on immediate basis.

Deliberation of the sub-Committee:

NERLDC requested all the utilities as above to clear the OSD as part of DSM charges immediately.

The Sub-Committee noted as above.

Action: all utilities as above.

Metering Agenda

D.31 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 D.31.a**, are not received by NERLDC and **Annexure D.31.b** provides location details of Drift correction action not being done / weekly SEM data not sent.

Deliberation of the sub-Committee:

It was decided that Golaghat SEM would be diverted to Mariani.

The Sub-Committee noted as above.

Action: NERTS.

D.32 Meter Errors:

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

l) Panchgram end of Lumshnong feeder, Panchgram end reading erratic.

Deliberation of the sub-Committee:

It was decided that SLDC Assam will co-ordinate with Panchgram for correction.

The Sub-Committee noted as above.

Action: AEGCL.

D.33 Laptop Malfunction at Umtru end:

Metering laptop at Umtru end reported malfunction, SEM data download unsuccessful.

Deliberation of the sub-Committee:

NERTS informed that Laptop being exposed to Virus infection while exchanging data through pendrives is liable to malfunction every now and then. It is the responsibility of the substations to maintain the laptop in good health. Any reinstallation of windows shall be responsibility of the Substations concerned and NERTS cannot help in that respect.

NERTS shall provide tutorial PPT for installation of SEM software and SEM download procedure by 30.11.2019 which may be used by substation engineers to install the software and download the data.

The Sub-Committee noted as above.

Action: MePTCL.

D.34 Problem in extracting data from Elster Meters at Silchar end

Problem in collecting Elster meter data in Silchar Substation. Whatever meter data is being sent is either old or non-convertible.

Deliberation of the sub-Committee:

NERTS informed that Old DCD of Silchar found defective, hence replacement DCD from Misa diverted to Silchar. However, the diverted DCD is unable to convert the extracted data. OEM contacted. Awaiting reply.

The Sub-Committee noted as above.

Action: NERTS.

D.35 Urgent Meter Replacement

Three SEMs need to be replaced on urgent basis at the following ends:

1. Mariani (AS) end of Misa
2. Mariani (AS) end of Kathalguri (AGBPP)
3. Mariani (AS) end of 33 kV Changki

Deliberation of the sub-Committee:

NERTS stated that Meter shall be diverted from Misa and installation completion by 30.11.2019.

The Sub-Committee noted as above.

Action: NERTS.

ADDITIONAL AGENDA ITEMS FROM NERPC

D.36 Visit to Azara:

After detailed deliberation and considering the importance of availability of 400kV Silchar - Azara line the forum decided that a visit to Azara by a team comprising of members from NERTS, NERLDC, AEGCL and NERPC would be conducted. The tasks shall briefly be as follows:

- (i) Implementation of reviewed line parameters at Azara for 400kV Silchar-Azara.
- (ii) Testing of SPAR for 400kV Silchar-Azara
- (iii) RCA for delayed appearance of voltage to relay when line charged via Tie Breaker
- (iv) Checking of voltage input to Main-I & Main-II relay at Azara as fluctuation in voltage observed in all 3-phases during dead time.

The Sub-Committee noted as above.

Action: NERPC.

ADDITIONAL AGENDA ITEMS FROM NERTS

D.37 Shutdown for 400kV Palatana-Silchar D/C and 132kV Palatana-Surjamaninagar:

NERTS informed that for Diamond Crossing of OPGW stringing the shutdown of 400kV Palatana-Silchar D/C and 132kV Palatana - Surjamaninagar is required. Detailed presentation attached at **Annexure-D.37**.

OTPC opposed the shutdown as that would necessitate the plant i.e. Module-I to be shutdown with no generation. Director, NERPC opined that the work has been pending for a long time due to non-grant of shutdown. Further, since one Module (i.e.363MW) of OTPC is under outage, it is opportune time for granting daytime shutdown for the said lines with minimum effect/burden on beneficiaries.

After detailed deliberation considering the importance of work and delay in project completion, the forum approved the shutdown tentatively on 29.11.2019 or 30.11.2019(daytime).

The Sub-Committee noted as above.

Action: NERLDC/NERPC/all utilities.

ADDITIONAL AGENDA ITEMS FROM AEGCL

D.38 Railway LTA, OA with Assam and modalities thereof:

AGM, SLDC, AEGCL informed that Railways has expressed interest for taking Supply of electricity from Assam (AEGCL/APDCL) and 132kV Lines and Substation erection is in advanced stage. He stated that for LTA/TSA and Open Access arrangement including software training etc. AEGCL requires support from some other state, where similar arrangement is prevalent. The forum requested NERPC to facilitate in this regard.

The Sub-Committee noted as above.

Action: NERPC.

Date & Venue of next OCC meeting:

It is proposed to hold the 163rd OCC meeting of NERPC on second week of December, 2019. However, exact date and venue will be intimated in due course.

Annexure-I**List of Participants in the 162nd OCC Meeting held on 15th November, 2019**

SN	Name & Designation	Organization	Contact No.
1.	Sh. Purik Buchi, A.E (E)	Ar. Pradesh	09402936916
2.	Sh. T.K. Mahanta, CGM, SLDC	Assam	09435340383
3.	Sh. D. Deka, CGM (O&M)	Assam	09854015609
4.	Sh. H.S. Mohan, DGM, SLDC	Assam	09435336124
5.	Sh. Dipesh Ch. Das, AGM (LDC)	Assam	09954110254
6.	Sh. Bimal Ch. Das, AGM, SLDC	Assam	09435119248
7.	Sh. G.K. Bhuyan, DGM	Assam	09854015601
8.	Sh. I. Tahbildar, AGM (TRC), APDCL	Assam	09854799857
9.	Sh. Lhumchalal Lupho, Dy. Mgr.	Manipur	07085499433
10.	Sh. Themchan Woleng, Asst. Mgr.	Manipur	08731000143
11.	Sh. B. Nikhla, EE, SP	Meghalaya	-
12.	Sh. B. Narry, AEE, (C&C)	Meghalaya	09089000911
13.	Sh. M.N. Tariang, JE, SP	Meghalaya	07005620013
	No Representatives	Mizoram	-
14.	Sh. Nitovi Wotsa, EE	Nagaland	09436004928
15.	Sh. Rokobeito Iralu, SDO	Nagaland	09436837020
16.	Sh. Anil Debbarma, DGM, SLDC	Tripura	09612589250
17.	Sh. Joypal Roy, DGM (E/M)	NEEPCO	08837200069
18.	Sh. V. Suresh, ED	NERLDC	09449599156
19.	Sh. Sourav Mandal, Dy. Mgr.	NERLDC	09402102354
20.	Sh. M.P. Nath, CM	NERLDC	09436335374
21.	Sh. S.C. De, GM	NERLDC	09436335269
22.	Sh. Jerin Jacob, Asst. Manager (SO-II)	NERLDC	09602120113
23.	Sh. Keshab Borah, Engineer	NERLDC	07002323608
24.	Sh. U. Kataki, Sr. GM (I/c-AM)	PGCIL	09435505418
25.	Sh. P. Kanungo, Sr.GM, Misa Group	PGCIL	09436302823
26.	Sh. Ashok Sinha, Sr.DGM, Misa S/S	PGCIL	09435539241
27.	Sh. Pinak Nandi, Dy.Mgr. RTAMC, Shillong	PGCIL	09436335227
28.	Sh. Pulak Deka, Manager (E)	NHPC	06900178738

29.	Sh. Alokesh Hazarika, Mgr.	OTPC	08787606131
30.	Sh. Subhashish Guhe, AGM (O)	NTPC	09435026737
31.	Sh. B. Choudhury, CGM	NTPC	09435503167
32.	Sh. Ratan Singh Basnet, Dy. Mgr.	NETC	08811072489
33.	Sh. A.K.Thakur, Member secretary	NERPC	09810271963
34.	Sh. B. Lyngkhoi, Director	NERPC	09436163419
35.	Sh. S.M. Aimol, DD	NERPC	08974002106
36.	Sh. S. Mukherjee, AD	NERPC	08794277306
37.	Sh. Sadiq Imam, AD	NERPC	-

Generation Projection (Jan- Mar 2020)

Sl. No.	Entities	Region	Comments From DICs /Others (if any)	Figure as per Comments/ PoC Data	Ratified at 162nd OCCM
1	AGTPP, NEEPCO	NER	As per data given by NEEPCO	135	
2	Doyang, NEEPCO	NER		62	
3	Kopili, NEEPCO	NER		0	
4	Kopili 2, NEEPCO	NER		25	
5	Khandong, NEEPCO	NER		44	
6	Ranganadi, NEEPCO	NER		401	
7	AGBPP_Kathalguri	NER		230	
8	Loktak, NHPC	NER	As per data given by NHPC	105	
9	Palatana GBPP	NER	As per data given by OTPC	680	
10	Bongaigaon_NTPC	NER	Submitted directly to NLDC		

Generation Projection (Jan- Mar 2020)

Generation Projection (Jan- Mar 2020)					
Sl. No.	Entities	Region	Comments From DICs /Others (if any)	Figure as per Comments/ PoC Data	Ratified at 162nd OCCM
11	Pare	NER	As per data given by NEEPCO	110	

Generation Projection (Jan- Mar 2020)

Generation Projection (Jan- Mar 2020)					
Sl. No.	Entities	Region	Comments From DICs /Others (if any)	Figure as per Comments/ PoC Data	Ratified at 162nd OCCM
12	Arunachal Pradesh	NER	Not Submitted		
13	Assam	NER	As per data given by Assam	252	
14	Manipur	NER	No Generation	-	
15	Meghalaya	NER	As per data given by Meghalaya	243	
16	Mizoram	NER	As per data given by Mizoram	68	
17	Nagaland	NER	As per data given by Nagaland	12	
18	Tripura	NER	As per data given by Tripura	178	

DEMAND FORECAST USING PAST 3 YEARS DATA (Jan- Mar 20120)

	Comments	Data given by DICs	For Ratification at 162nd OCCM
Arunachal Pradesh	As per data given by Arunachal Pradesh	156	
Assam	As per data given by Assam	1550	
Manipur	As per data given by Manipur	235	
Meghalaya	As per data given by Meghalaya	384	
Mizoram	As per data given by Mizoram	99	
Nagaland	As per data given by Nagaland	140	
Tripura	As per data given by Tripura	378	

TIME DRIFT REPORT STATUS

SL.NO	PGCIL	STATUS
1	BNC (PG)	REPORT NOT RECEIVED/ACTION NONE
2	BADARPUR (PG)	REPORT NOT RECEIVED/ACTION NONE
3	Silchar(PG)	REPORT NOT RECEIVED/ACTION NONE
4	MARIANI (PG)	REPORT NOT RECEIVED/ACTION NONE
5	HAFLONG (PG)	REPORT NOT RECEIVED/ACTION NONE
6	Mokokchang(PG)	REPORT NOT RECEIVED/ACTION NONE
7	RANGIA (PG)	REPORT NOT RECEIVED/ACTION NONE
8	Aizawl(pg)	REPORT NOT RECEIVED/ACTION NONE
9	SALAKATI(PG)	REPORT NOT RECEIVED/ACTION NONE
10	BONGAGIGAON(pg)	REPORT NOT RECEIVED/ACTION NONE
11	DIMAPUR(pg)	REPORT NOT RECEIVED/ACTION NONE
12	Khliehriat(Pg)	REPORT NOT RECEIVED/ACTION NONE
	ASSAM	
13	DULLAVCHERRA	REPORT NOT RECEIVED
14	NAGALAND(S)	REPORT NOT RECEIVED
15	MIZORAM(S)	REPORT NOT RECEIVED
	TRIPURA	
16	SM NAGAR	REPORT NOT RECEIVED
17	79 TILLA	IRREGULAR
	ARUNACHAL PRADESH	
18	CHIMPU	REPORT NOT RECEIVED
	GENERATION	
19	AGBPP	REPORT NOT RECEIVED
20	DOYANG	REPORT NOT RECEIVED
21	PALATANA	IRREGULAR

Time Drift Corrective Action Not taken

SI. NO.	ENTITY	LOCATION	TIME DRIFT STATUS (MIN)	STATUS
1	ASSAM	AZARA-BONG	-04:14	Meter replaced due to high time drift but due to inaction drift >4
2	ASSAM	AZARA-SIL	-04:41	Meter replaced due to high time drift but due to inaction drift >4
3	ASSAM	DULLAVCHERRA	+02:20	No action taken

Locations not sending weekly SEM data

SI. No.	LOCATION NOT REPORTING	STATUS
1	UDAIPUR	DATA NOT SENT
2	SONABIL	DATA NOT SENT



POWER GRID CORPORATION OF INDIA LTD, NERTS, AGARTALA

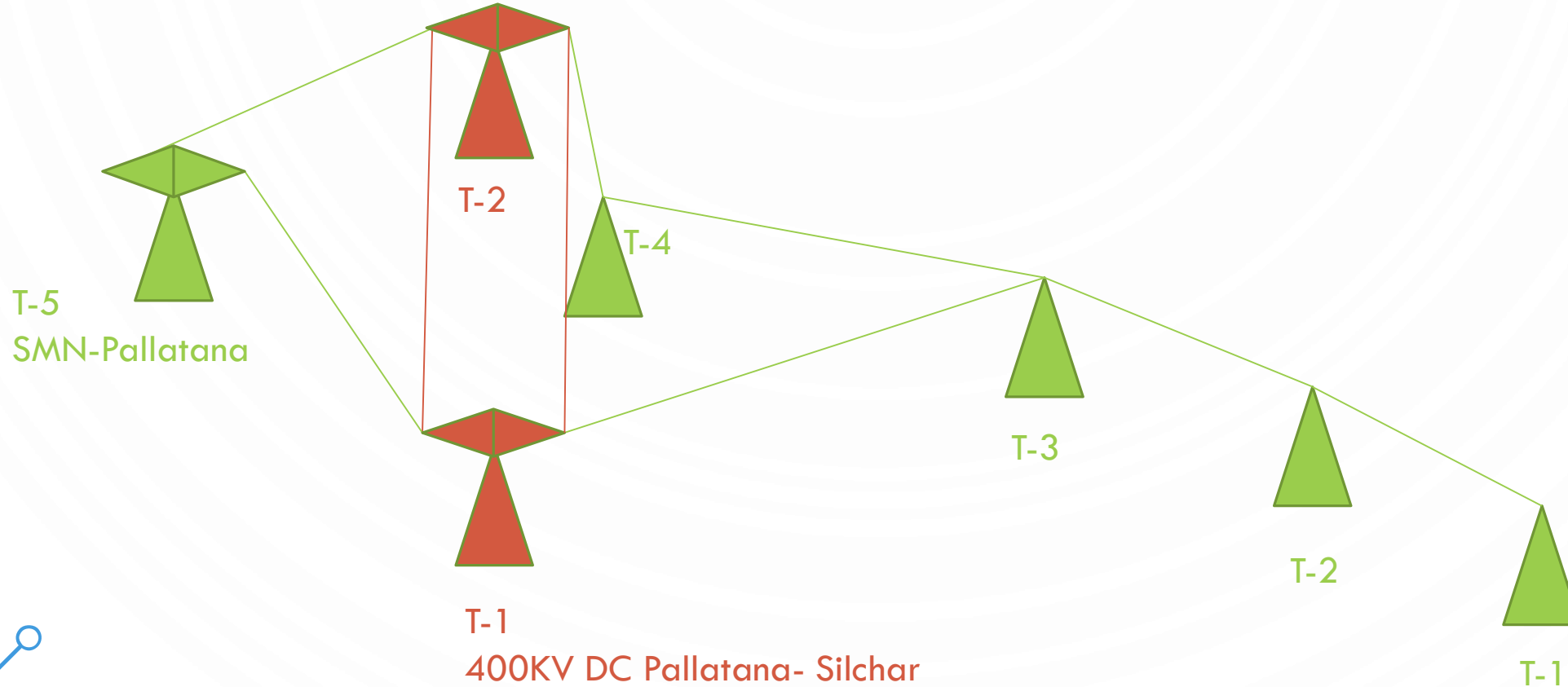
NAME OF THE WORK:

**DIAMOND CROSSING OF OPGW OF 132KV PALATANA- S. M. NAGAR TL OVER
400KV D/C PALATANA- SILCHAR TL (OPGW STRINGING WORK UNDER SD) UNDER
NER FO EXPANSION PROJECT**

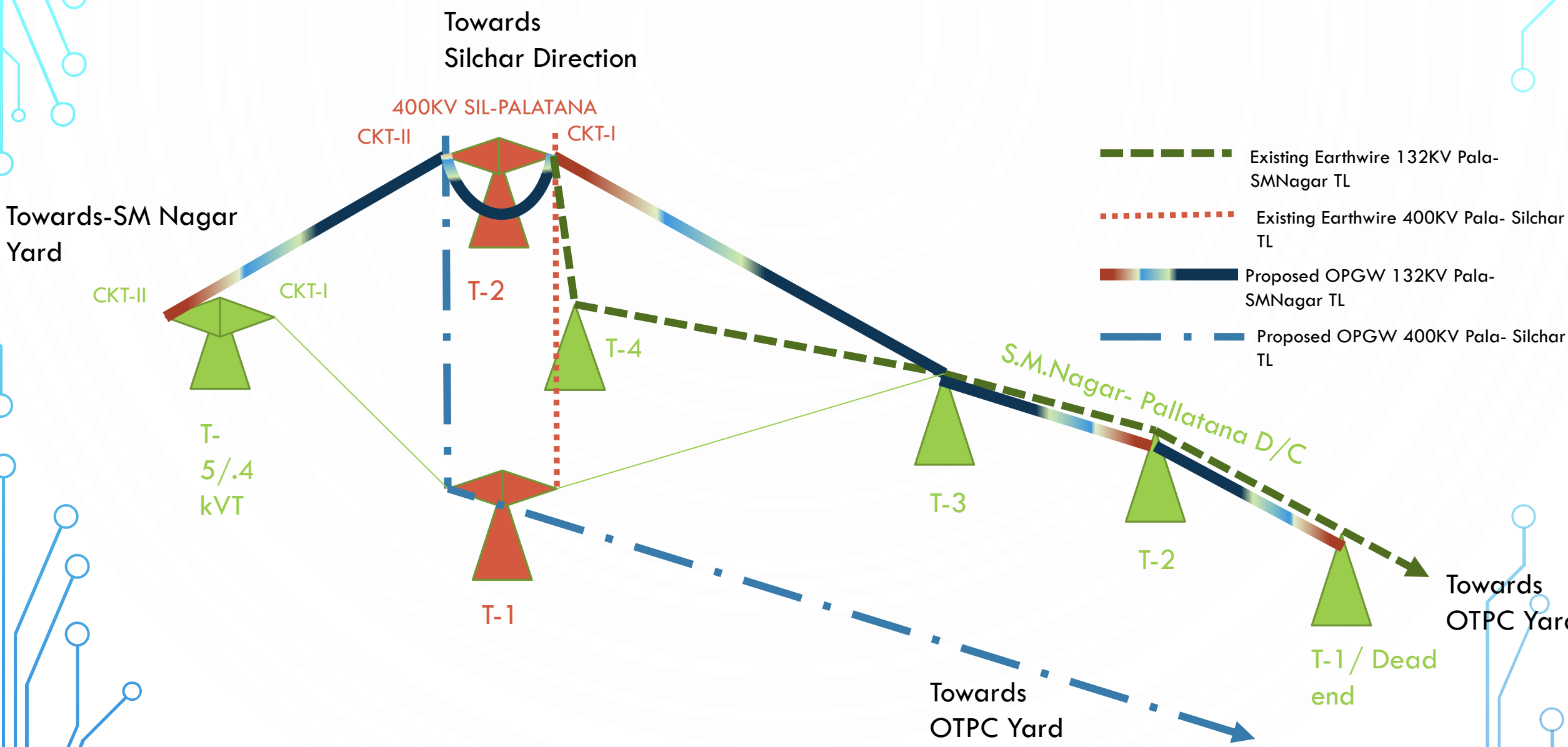
Background:

Due to electrical clearance earthwire of Tower No- 05 to Tower no 04 of 132kV Palatana- S M Nagar Transmission line connected via Tower no 02 and Tower no 01 of 400KV D/C Palatana- Silchar by arranging diamond crossing. For this section online stringing is not possible and so shut down is required. However for other section online stringing will be done.

The team of TCIL/executing earlier left site as shut down for specific section could not be allowed(last 3 OCCs) and specific OPGW drum was not started to be strung. The work was at halt



Proposed Connection: Diamond arrangement for OPGW of 132KV Palatana- S . M. Nagar TL



Requirement of shut down

1. Ckt-I & Ckt-II of 400kV D/C Palatana- Silchar TL from 08:00Hrs to 16:00Hrs on 26.11.2019
2. 132kV Palatana- Surjamaninagar TL from 08:00Hrs to 16:00Hrs on 26.11.2019
3. The shut down is required for diamond crossing work of OPGW with safety.
4. Onward this FO-OPGW work is completed, splicing will be done & then Equipments will be commissioned

WHY SAME IS REQUIRED:

A. Connecting SM Nagar Pallatana will facilitate in the following:

- 1) Connection of Fiber with Pallatana Generating station
- 2) Connection of additional 4 stations of TSECL report to Tripura SLDC (Rokhia, Udaipur, Pallatana, Gumti, Amarpur). TSECL can also add Rabindrangar to connect it by PLCC at Rokhia FO node.

B. To avoid delay in project and avoid additional idling charge/claims by gangs