



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/2018/ 6714-52

Dated: March 23, 2018

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. Engineer-in-Chief (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, Dongtieh-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. ED, NERLDC, Dongtieh, 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 142nd OCC Meeting.**

Sir/Madam,

Please find enclosed herewith the minutes of 142nd OCC Meeting held at Guwahati on the **14th March, 2018** for your kind information and necessary action. The minute is also available on the website of NERPC, [www.nerpc.nic.in](http://www.nerpc.nic.in).

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

**Encl: As above**

भवदीय / Yours faithfully,

बी. लिंगखोइ

बि. लिंगखोइ / B. Lyngkhoi

निदेशक / 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. GM, NERLDC, Dongtiah, Lower Nongrah, Lapalang, Shillong - 793006
11. Chief Engineer(Elect), Loktak HEP, Vidyut Vihar, Kom Keirap, Manipur- 795124
12. Addl. GM (EED), NTPC Ltd., Bongaigoan Thermal Power Project, P.O. Salakati, Kokrajhar- 783369
13. GM (C&M), OTPC, 6th Floor, A-Wing, IFCI Tower -61, Nehru Place, New Delhi – 110019.

वी. लिंगखोड्ड  
निदेशक / Director/ SE

## North Eastern Regional Power Committee

### **MINUTES OF THE 142nd OPERATION COORDINATION**

#### **SUB-COMMITTEE MEETING OF NERPC**

**Date** : 14/02/2018 (Wednesday)  
**Time** : 10:00 hrs  
**Venue** : "Hotel RajMahal", Guwahati.

The List of Participants in the 141st OCC Meeting is attached at **Annexure - I**

Shri P.K. Mishra, Member Secretary, NERPC welcomed all the participants to the 142<sup>nd</sup> OCC meeting. He noted the presence of participants from all the utilities except Arunachal Pradesh and Mizoram. He expressed satisfaction about the maximum participants from all the utilities and requested to continue the same in future so that matters can be resolved during the meeting. He noted that this was the last meeting of the financial year and new tariff policy would be in place from 01.04.19 onwards. A meeting in CERC in this regard has been fixed on 19.03.2018 specially for NER constituents. Apart from above draft tariff policy 2019-24; GNA, PoC review framework and SAMAST would also be discussed in that meeting. He requested all the sub-group members and also co-opted members to be present in the said meeting. For upcoming SCM and NPC meeting(s), he requested all the utilities to send their agenda as soon as possible. Further he informed that Technical Committee meeting of CERC would be held in Shillong on 16.04.2018. Further, he informed that Chairperson, CEA alongwith CE,NPC would hold a meeting in Guwahati shortly to review PSDF funded works in NER. He requested members to participate in the above meetings wholeheartedly and resolve any outstanding issues.

Thereafter, Member Secretary requested Shri B. Lyngkhai, Director/SE(O&P) to take up the agenda for discussion.

#### **A. CONFIRMATION OF MINUTES**

#### **CONFIRMATION OF MINUTES OF 141st MEETING OF OPERATION SUB-COMMITTEE OF NERPC.**

The minutes of 141st meeting of Operation Sub-committee held on 14<sup>th</sup> February, 2018 at Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2016/4556-4591 dated 23rd February, 2018.

*The Sub-committee confirmed the minutes of 141st OCCM of NERPC as no comments/observations were received from the constituents.*

**ITEMS FOR DISCUSSION**

**B.1. ACTION TAKEN:**

**1. IMPLEMENTATION OF PROJECTS FUNDED FROM PSDF:**

The status as informed in 141st OCC:

State	Protection System	ADMS	Capacitor Installation	SAMAST**
Arunachal Pradesh	Requisition of funds by May-June 2018.	Clarification submitted to Techno-Economic Sub-group.	-	SLDC to apprise SERC of the project.
Nagaland	Pack-A: Aug'18 Pack-B: Aug'18 Pack-C: May'18 Pack-D: Completed.	Clarification submitted to Techno-Economic Sub-group.	To re-submit proposal to NERPC for Study.	Documents and relevant papers have been furnished to Nagaland SERC as desired by Chairperson, SERC. SERC has requested for a presentation at Kohima/Nagaland by the SAMAST group
Mizoram	Could not be updated- due to absence of officials	Clarification submitted to Techno-Economic Sub-group.	Appraisal Committee is yet to approve	DPR to be completed by Mar'18.
Manipur	All LOAs by Apr'18	Clarification submitted to Techno-Economic Sub-group.	Submitted to NERPC for Study before sending to NPC/NLDC.	DPR to be completed by Mar'18.
Tripura	UC by 31.03.18.	Clarification submitted to Techno-Economic Sub-group.	To submit proposal to NERPC for Study.	DPR to be completed by Mar'18.
Assam	R&U Remaining 40% LOAs April'18 Retendering	Clarification submitted to Techno-Economic	-	DPR finalized.

	Diagnostic Tools, DG set and PLCC By Jun'18 all LOAs BCU Rem 40% LOAs by Apr'18	Sub-group.		
Meghalaya	MePTCL-PLCC equipment LOA by Mar'18. Earthing Pkg Tender May'18 Rem. LOAs by Mar'18 MePGCL -By April'18 erection is likely to be completed.	Clarification submitted to Techno-Economic Sub-group.	-	DPR awaiting board approval.

***Deliberation of the sub-Committee:***

SE(O&P), NERPC informed that a software for capacitor bank installation has been developed by SRPC. This may be used for determining capacitor bank studies i.r.o. Tripura/Mizoram.

Regarding SAMAST DGM(MO), NERLDC informed the forum that as agreed in OCC and CCM of NERPC, a combined DPR for NER would be submitted to NPC/NLDC as decided earlier. The latest timeline for DPR completion for all the states is 30.04.18. Further he apprised the forum that due to common DPR and subsequently common tendering the overall project cost would be substantially reduced due to non-duplication of software cost. The forum requested the SAMAST committee to approach CERC so that Hon'ble Commission issues appropriate order for common tendering and implementation.

***The Sub-Committee noted as above.***

***Action: All state utilities/NERPC.***

**2. Outage of Important Grid Elements:**

Name of the Element	Name of Utility	Status as informed in 141st OCC
63MVAR Reactor at Byrnihat to replace with 80MVAR Reactor	MePTCL	NERPC to pursue with NPC regarding exact status.
400KV 80MVAR Bus Reactor at		Unavailability of critical spare. By

Palatana	OTPC	30.04.2018 - CoD.
132 kV P K Bari – Silchar I & II	NERTS	Ckt#II – By Mar'18.
132 kV Hailakandi – Dullavcherra	AEGCL	<b>Charged on 13.03.2018.</b>
DHEP Unit 2	NEEPCO	GT failure. By Apr'18
400/220 kV, 315 MVA ICT-II at BgTPP	NTPC	*** By Apr'18
Replacement of R-ph bushing of 63MVAR L/R at Balipara for 400kV Balipara-Bongaigaon -II (out since 17.02.18)	NERTS	By Mar'18 (Subject to receipt of recommendation from OEM for replacement of Bushing at site).

**Deliberation of the sub-Committee:**

\*\*The forum suggested NTPC to explore possibility of obtaining bushing from defective Byrnihat reactor. EE,SP, MePTCL stated that formal request has to be made to Dir(Trans), MeECL after feasibility at site is assured.

**The Sub-Committee noted as above.**

**Action: All concerned utilities.**

**3. Furnishing of various data for reliable grid operation:**

Data regarding	Status as of 142nd OCC	
DAS output for FRC calculation	Event Date: 30.01.18; Doyang & RHEP provided information. Event Date: 20.02.18; Doyang, & OTPC provided information. NERLDC once again requested all generators to provide DAS data at the earliest for FRC calculation.	
Operating Procedures.	<b>Items</b>	<b>Data submitted by</b>
	OP of States	Submitted only by AEGCL and MePTCL
	OP of HVDC	Not Submitted
	OP of Transmission System	Not submitted by any constituents
	OP of Generating Stations	Not submitted by any generators
	OP of GIS	Not submitted by any constituents
Data related to Power Map.	<b>Items</b>	<b>Data submitted by</b>
	Communication (PLCC/OPGW/ GPRSVSAT/ Satellite)	List of lines mailed by NERLDC on 9 <sup>th</sup> January'18
Data related to	State SEM Location	Only Meghalaya submitted

Single Line Diagram.	
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**The Sub-committee noted as above.**

**Action: All utilities as above.**

**4. Monitoring of Corrective actions as decided in PCC forum:**

Name of the Element	Action to be taken	Name of Utility	Latest status
220 kV Samaguri - Sonabil 1 Line	Replacement of broken jumper at Brahmaputra river crossing and restore the conductor	AEGCL	<b>Completed.</b> idle charged from Sonabil.
132 kV Aizawl - Kolasib 1 Line	Installation of TLSA	NERTS	<b>Completed</b>
132 kV Imphal (MSPCL) - Imphal (PG) 1 & 2 Lines	CB problem of Karong feeder at Imphal(MSPCL) is to be attended	MSPCL	<b>Completed</b> 13.03.18.
132 kV Dimapur - Doyang 1 & 2 Lines	Installation of Numerical Relay at Doyang	NEEPCO	By Dec'18
400 kV Killing (Byrnihat) - Silchar Line	Installation of TLSA	NETC	Not required as decided by NETC.
Busbar Protection operated at Dimapur on 12.10.17	Replacement of Tension insulator of the spare bus	POWERGRID	<b>Completed</b>
Disturbance on 09.11.17 due to opening of 220 kV Kopili - Misa 1 Line	Problem in Latching Mechanism of Misa line CB at Kopili to be attended at the earliest	NEEPCO	<b>Completed</b>
132kV PK Bari-Kumarghat	Installation of Line differential relay	NERTS	By Dec'18
132kV PKBari	Installation of Numerical Relay under R&M ( <i>high priority</i> )	TSECL	By Mar'18
CB non-operation for 132kV RHEP-Ziro at RHEP	Replacement/repair of CB	NEEPCO	<b>Repair completed.</b>

**B.2. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING**

**FEBRUARY, 2018**

As per the data made available by NERLDC, the grid performance parameters for February, 2018 are given below:

**NER PERFORMANCE DURING FEBRUARY, 2018**

States	Energy Met (MU)		w.r.t. Jan,18 % inc (+) /dec (-)	Energy Reqr. (MU)		w.r.t. Jan,18 % inc (+) /dec (-)	% inc (+) /dec (-) of energy reqr vs met. In Feb,18
	Feb-18	Jan-18		Feb-18	Jan-18		
Ar. Pradesh	62.22	67.09	-7.26	63.02	68.05	-7.39	-1.27
Assam	641.17	704.17	-8.95	652.58	713.53	-8.54	-1.75
Manipur	70.65	83.57	-15.46	71.33	84.50	-15.59	-0.95
Meghalaya	187.08	190.17	-1.62	187.08	190.17	-1.62	0.00
Mizoram	51.36	59.65	-13.90	51.93	60.38	-13.99	-1.10
Nagaland	57.91	63.09	-8.21	66.25	71.43	-7.25	-12.59
Tripura	100.59	107.48	-6.41	101.17	108.02	-6.34	-0.57
<b>Region</b>	<b>1170.98</b>	<b>1275.22</b>	<b>-8.17</b>	<b>1193.37</b>	<b>1296.07</b>	<b>-7.92</b>	<b>-1.88</b>

States	Demand Met (MW)		w.r.t. Jan,18 % inc (+) /dec (-)	Demand in (MW)		w.r.t. Jan,18 % inc (+) /dec (-)	% inc (+) /dec (-) of Demand vs met. In Feb,18
	Feb-18	Jan-18		Feb-18	Jan-18		
Ar. Pradesh	128	134	-4.48	138	138	0.00	-7.25
Assam	1481	1510	-1.92	1501	1539	-2.47	-1.33
Manipur	191	195	-2.05	197	202	-2.48	-3.05
Meghalaya	311	331	-6.04	312	331	-5.74	-0.32
Mizoram	94	96	-2.08	103	105	-1.90	-8.74
Nagaland	122	124	-1.61	150	152	-1.32	-18.67
Tripura	237	226	4.87	238	226	5.31	-0.42
<b>Region</b>	<b>2333</b>	<b>2317</b>	<b>0.69</b>	<b>2387</b>	<b>2339</b>	<b>2.05</b>	<b>-2.26</b>

**REGIONAL GENERATION & INTER-REGIONAL EXCHANGE IN MU**

**AVERAGE FREQUENCY (Hz)**

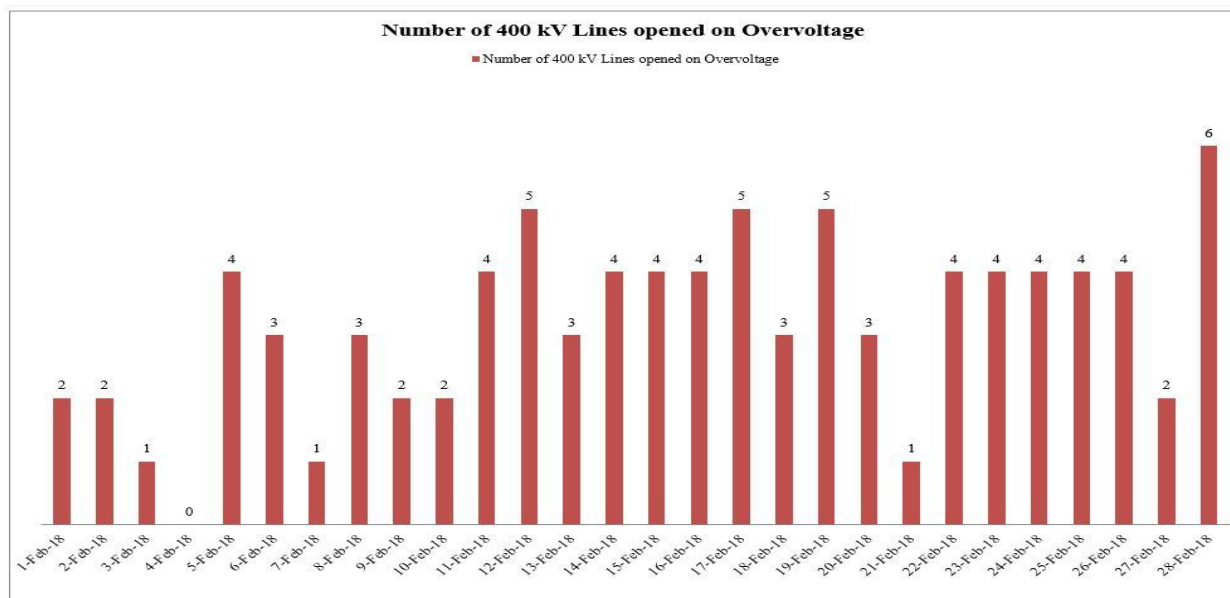
Month---->	Feb-18	Jan-18	Month---->	Feb-18	Jan-18
Total Generation in NER (Gross)	1180.627	1329.102		% of Time	% of Time
Total Central Sector Generation (Gross)	884.266	1013.558	Below 49.9 Hz	9.69	11.07
Total State Sector Generation (Gross)	296.360	315.544	Between 49.9 to 50.05 Hz	80.25	78.01
<b>Inter-Regional Energy Exchange</b>			Above 50.05 Hz	10.06	10.92
(a) NER-ER	<b>94.64</b>	<b>95.17</b>	Average	49.98	49.98
(b) ER-NER	<b>242.16</b>	<b>273.68</b>	Maximum	50.21	50.29
(c) NER-NR	<b>175.52</b>	<b>214.86</b>			

(d)NR-NER	<b>111.18</b>	<b>130.02</b>			
© Net Import	83.18	93.67	Minimum	49.70	49.62

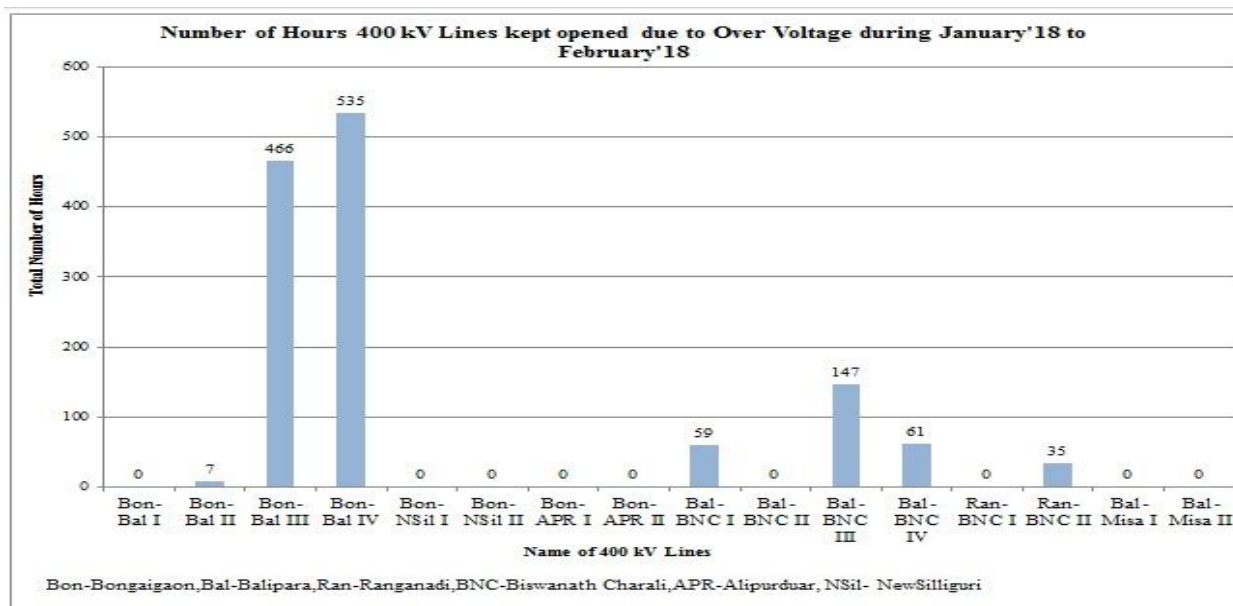
**Deliberation of the sub-Committee:**

SE(O&P),NERPC enquired of the reasons for higher peak demand of Manipur & Nagaland. DGM,SLDC, MSPCL informed that peak demand has increased in the areas of Kakching and Churachandpur due to expansion of transmission and distribution network. EE(Trans) Nagaland informed that rapid urbanisation and mass migration has led to higher peak especially for Dimapur and Kohima.

NERLDC gave a presentation on the grid performance for the month of February'18. NERLDC also highlighted that Daily, Weekly and Monthly Voltage Deviation Report, Frequency Deviation Report and System Reliability Report for February'18 are already mailed to all the constituents for necessary actions. Further it was informed that members may access these reports from NERLDC website under the tab CERC KPI Reports. NERLDC informed the forum about the number of lines kept open on high voltage. Forum express concern about the same and requested the generators to absorb MVAR. NERLDC again requested for early restoration of reactors which are under long outage and commissioning of new reactors at the earliest as mentioned in SI. No. B.1.2 and C.1 so that it does not require to open lines for maintaining voltage profile within IEGC band. The plots of 400 kV lines opened for maintaining voltage profile within IEGC band during February'18 is mentioned below:



**Outage Hours: For 400 kV Lines**



The Sub-Committee noted as above.

**ITEMS FOR DISCUSSION**

**C. OLD ITEMS**

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

During 142nd OCC meeting, the status as informed by different beneficiaries is as follows:

SN	Items	Status as given in 141st OCC Meeting	Status as given in 142nd OCC Meeting
<b>a. New Elements</b>			
1	400/220kV, 315 MVA ICT-1 of NTPC at Bongaigaon	ICT-1 - Mar'18	ICT-1 - Apr'18
2	Kameng HEP of NEEPCO two units (2 x 150 MW) Next two units (2x150 MW)	Unit #I - Mar'18	Leakage in underground portion of pen stock. After inspection final date would be intimated.
3	Pare HEP of NEEPCO (2 x 55 MW)	Unit #I - Mar'18	Unit #I - Mar'18
4	400 kV D/C Silchar - Melriat line of PGCIL	March, 2018.	June, 2018.

5	220kV Rangia - Salakati of AEGCL	May, 2018.	May, 2018.
6	132kV Monarchak - Surjamaninagar D/C of TSECL	56 tower erection completed.	Apr'2018
7	400kV D/C Balipara - Kameng	NERTS to complete by 05.03.2018.	ROW issues. 1 <sup>st</sup> week of Apr'18.
8	SLDCs (Ar. Pradesh, Manipur, Mizoram, Nagaland)	Ar. Pradesh - Mar'18 Manipur, Mizoram, Nagaland - CoD	Ar. Pradesh - Mar'18 Manipur, Nagaland - CoD Mizoram-ToC date to be confirmed.
9	400/220 kV 315 MVA ICT-II at Bongaigaon	March, 2018.	Tied up with GIS. By June'18.
10	220/132 kV, 160MVA ICT-II at Balipara	ICT#II - delayed	ICT#II - delayed, Sept"18
11	220/132 kV, 1x160 MVA ICT with GIS Bay at Kopili	March, 2018.	Sept, 2018.
12	400/132 kV, 1x315 MVA ICT-III at Silchar	March, 2018.	May, 2018.
13	Replacement of 2x315 MVA ICTs with 2x500 MVA ICTs at Misa (PG)	March, 2018.	ICT-I : May'18 ICT-II : Aug'18
14	400 kV Silchar - Misa D/C	2019	2019
15	1x125 MVAR Bus Reactor at 400 kV at Balipara	March, 2018(LOA date).	March, 2018(LOA date).
16	1x125 MVAR Bus Reactor at 400 kV Bongaigoan	March, 2018(LOA date).	March, 2018(LOA date).
17	Tuirial HEP of NEEPCO	Unit #I -CoD by Dec'17 Unit #II - Jan'18	Unit #I -CoD pending Communication and Connection Agreement. Unit #II - Feb'18
18	33kV bay at 220kV Mariani(AS) S/Sn	Metering issues to be taken up with APDCL by NERTS	Take up with APDCL. Load security payment is under process. APDCL will install meter.
19	33kV Tezu-Tezu(AP)	-	-
20	33kV bay for 132kV Badarpur(PG) S/Sn	APDCL to revert back with status.	APDCL submitted estimate to PG_Badarpur recently.

21	Dedicated 33kV feeder at Khliehriat Substation from Lumshnong.	MeECL to revert back.	To be taken up by NERTS with MePDCL.
22	Construction of 132 kV Imphal (PG) - Yurembam III & IV lines with high capacity conductor by MSPCL	-	By last week of Apr'18
<b>b. Elements under breakdown/upgradation</b>			
23	Up-gradation of 132 kV Lumshnong-Panchgram line	DPR already submitted to NERPC/NLDC.	To be approved by Techno-Economic sub-group for funding from PSDF.
24	Switchable line Reactors at 400kV Balipara & Bongaigoan	March'18	April'18
25	PLCC Panels at Loktak end of Loktak - Ningthoukhong 132 kV feeder and Loktak - Rengpang 132 kV feeder	May'2018	Oct'2018
26	LILO of 132kV Ranganadi - Nirjuli at Pare of NEEPCO by PGCIL	LILO completed. Two towers to be diverted. Complete by Dec'17.	Charged on 02.03.18. <b>To be dropped.</b>
27	LILO of 132kV Ranganadi - Itanagar (Chimpu) at Pare of Ar. Pradesh	Bay 1 at RHEP for Pare: Jan'18 Bay 2 at RHEP for Itanagar: Mar'18	Bay 1 at RHEP for Pare: Delayed Bay 2 at RHEP for Itanagar: Delayed
28	LILO portion of 132kV Ranganadi - Nirjuli(diversion work) at Lekhi by DoP Ar. Pradesh	Jan'18	Completed. <b>To be dropped.</b>
29	Re-conductoring of 132kV Umiam Stg#I - Umiam Stg-III	DPR prepared. Submitted for approval.	DPR prepared and submitted for approval
30	Upgradation of ULDC FO node	Target completion : June 2018	Target completion : June 2018
31	HTLS re-conductoring of 132kV Agartala - RC Nagar - I & II	NEEPCO to replace Bus & Line isolators with higher rated ones. Ckt#II- Mar'18	** Ckt#II- Mar'18

32	Re-conductoring of Imphal (PG)-Yurembam 132 kV S/C POWERGRID line with high capacity conductor by NERTS	-	Apr'18
33	Up gradation / modification of bay equipment at Imphal (PG) by POWERGRID and at Yurembam by MSPCL	-	Apr'18

**Deliberation of the sub-Committee:**

\*\* Sr. Manager, NEEPCO informed the forum that as recorded in 5<sup>th</sup> SCM of NER(item No. 26) POWERGRID has to upgrade bay equipments at AGTCCPP. The forum requested NERTS to expedite said works accordingly.

EE(System Protection), MePTCL informed the forum as the handing over of 400kV Byrnihat S/Sn by POWERGRID to MePTCL is not formally completed, all 400 KV protection related issues, in the 400 KV Silchar- Byrnihat and 400 KV Byrnihat – Azara line at the 400 KV Byrnihat Sub Station end will be jointly attended by Power Grid with MePTCL. He requested Power Grid protection Engineer to arrange a one day discussion with MRT Engineer, MePTCL on the protection scheme etc which is implemented at the 400 KV Byrnihat Sub Station. SE (O&P) NERPC assured that a meeting with Director (Transmission),MeEPTCL, will be convene to resolve the issue.

DGM,SLDC, MSPCL informed that 132kV Aizawl-Jiribam is to be LILO'd at 132kV Tipaimukh urgently. He requested the forum that pre-requisites like meter installation, protection and communication may please be clarified. After detailed deliberation the forum decided that (i)2 ELSTER make SEM would be installed at Tipaimukh by NERTS, (ii) Opportunity daytime S/D would be taken by MSPCL on 02.04.18 and 03.04.18 to finish LILO/bay works, (iii)24hrs manning of Tipaimukh S/Sn would be ensured by MSPCL. NERLDC informed the forum that MSPCL has already applied for issuance of Charging Clearance of LILO of 132 kV Jiribam- Aizawl S/C line at Tipaimukh S/S (MSPCL)but some of the documents are still pending. The charging clearance will be issued by NERLDC after receiving of all relevant documents/information.

***The Sub-Committee noted as above.***

***Action: All state utilities/central utilities/NERPC.***

<b>D. NEW ITEMS</b>
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**D.1 Generation Planning (ongoing and planned outages)**

NEEPCO/NHPC may kindly intimate the availability for hydro stations:

Generating Station	Units running	MW	MU	Reservoir
Khandong	2		8.03	711.05
Kopili-II	1			
Kopili	4		59.22	599.46
Ranganadi	2		Subject to inflow	
Doyang	2		13.5	315.65
Loktak	3		64.00	767.55
AGBPP	-	-	-	-
AGTPP	-	-	-	-

***Hydro planning***

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

***Deliberation of the sub-Committee:***

***The Committee discussed and approved the proposed shutdown by Generating Stations and the same has already been uploaded in the website of NERPC.***

***The Sub-Committee noted as above.***

**D.2 Outage Planning Transmission elements**

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

Furnishing request of shut down of the element, which was approved by NERPC, by Indenting Agency (ISTS licensees/STUs/Generating Companies) to NERLDC: Planned shutdown approved by NERPC shall be considered for implementation by NERLDC on D-3 basis. If an outage is to be availed on say 10th of the month, the shutdown

availing agency would reconfirm to NERLDC on 7<sup>th</sup> of the month by 10:00 Hr. This practice is necessary to ensure optimal capacity utilization and the time required for associated system study/coordination by/amongst RLDC/NLDC.

In 124<sup>th</sup> OCCM, SE(C&O) strongly opined that constituents should inform to NERPC/NERLDC in case shutdown is not avail as approved in the OCC meeting and should mention clearly the reason for not availing the shutdown. The full list of shutdown would be placed in the next OCC by NERLDC so that proper record can be made in future for generating units as well as transmission lines. All constituents endorsed the view of SE(C&O).

In 130<sup>th</sup> OCCM, Member Secretary opined strongly about non commitments of earlier decision by the constituents and stated that all proposed plan shutdowns and agenda for the next OCC meeting should be sent to NERPC Secretariat latest by 5<sup>th</sup> day of next month. He directed SE(C&O) that the decision should be strictly adhere to and no shutdowns or agenda will be entertained after that stipulated date.

In 134<sup>th</sup> OCCM, it was decided that all communication related shutdown be approved in OCC forum only.

**S/D not availed and Delay returning of shutdowns :**

OCC forum approves the S/D after lots of discussion but it is observed that more than 50% shutdowns are not being availed by POWERGRID, so very objective of the S/D planning is failed. So S/D proposal list is required to be prepared very judiciously so that whatever list approve by forum is mandatory for all to avail else same S/D may not be allowed within next 3 months.

Also S/D returning time schedule is not maintained in most of the cases. More than 40% S/D are returned even after passing more than 2 hrs from schedule returning time which is a cause of concern as it is affecting constituents either by imposing load shedding or sacrificing system security.

**OPGW work related S/D:**

No of OPGW related works are in progress in NER but the consolidated list and schedule is not forwarded to NERLDC/NERPC. During OPGW work, Auto reclosure function is kept out of service. So OPGW work list and S/D list is needs to be matched to prevent any undesired tripping. In NLDC, OPGW work list and S/D list is maintained separately to keep clear information to real time grid management.

**Deliberation in the Meeting:**

SE(O&P), NERPC once again reiterated that shutdowns which are not being availed will not be entertained in the following month and would only be accorded in the next to next month.

NERLDC highlighted that OCC forum approves the S/D after lots of discussion but it is observed that some of the shutdowns are not being availed. Details of Shutdown not availed and shutdowns applied on D-3 basis is as below:

Total S/D approved	Total S/D availed	Total S/D not availed	Total S/D deferred	Total S/D availed on D-3 basis	Total S/D not applied on D-3 basis
88	68	15	5	53	35

NERLDC gave a presentation on the non-returning of shutdowns highlighting duration of negligencies.

DGM (AM), NERTS informed the forum that in certain cases only due to unavoidable circumstances, unforeseen site conditions, problematic test result of equipment etc. returning of shut downs may not be possible with scheduled approved time frame and forum should appreciate the real time situation of site. However, he also opined that the utility not able to return particular shut down in scheduled time should inform POSOCO and NERPC well in advance (at least 2 hours before the approved schedule of return) to avoid operational and commercial complication in Grid.

Regarding OPGW work related s/d he opined that during live line stringing of OPGW only Auto Reclosure Scheme to be switched off and service continuity of the element remains in-tack. Hence, requirement of approval of "Switching off" ARS, which is not shut down in nature, in OCC Meeting may be reviewed in line with other regions.

SE (O&P), NERPC suggested that henceforth shutdown list may be prepared under following categories:

- (i) New Construction Related Shut Down
- (ii) Existing System Improvement Related Shut Down.
- (iii) Existing System Normal Maintenance Related Shut Down
- (iv) Communication Related Shutdown
- (v) R&U works Related Shut Down under PSDF

***The sub-Committee discussed and approved the proposals received from the constituents regarding transmission elements and generating units for***

**March,2018 - April,2018 and the same has already been uploaded in website of NERPC.**

**D.3 Estimated Transmission Availability Certificate (TAC) for the month of August, 2017 & September, 2017:**

NETC and POWERGRID have submitted the outage data for the month of August & September, 2017. So the attributability of outage of the said elements may please be finalized.

In 141st OCCM, DGM (MO), NERLDC stated that outages would be made attributed to respective transmission licensees due to absence of documentary evidence during verification stage. NERPC secretariat would take due care accordingly. After detailed deliberation it was decided that Transmission Licensees (POWERGRID, NETC etc) would provide the relevant documents during verification process itself and no plea would be honored after that.

For streamlining the process of Verification of Transmission Element Availability, a draft Procedure is prepared by NERLDC and NERPC.

Constituents of NER are requested to send comment and suggestion for this document by 28th Mar'18. This document will be finalized by 31st Mar'18.

**Deliberation in the Meeting:**

NERLDC informed the forum that the draft procedure has been prepared and the same shall be circulated shortly. NERPC and NETC were requested to provide their comments on the draft Procedure by 31<sup>st</sup> March'18. The forum once again advised NETC & POWERGRID to submit data in a time bound manner as decided previously.

***The Sub-Committee noted as above.***

**Action: NERLDC/NERPC**

**D.4 Assessment of Total Transfer Capability (TTC), Transmission Reliability Margin (TRM) and Available Transfer Capability (ATC) by SLDC on respective Inter-State Transmission Corridor**

Updated PSS/E Base Cases have been mailed to all the SLDCs on 01.02.18. All SLDCs are requested to assess the Total Transfer Capability (TTC), Transmission Reliability Margin (TRM) and Available Transfer Capability (ATC) for the month of Mar'18 using these cases, and submit the study cases and results to NERLDC by 20.02.18.

NERLDC has assessed the state control area wise, state subsystem wise and group of control-area wise TTCs for NER Grid, on behalf of SLDCs of NER. The study results will be presented in the meeting. SLDCs are requested to check the TTC of their control areas as computed by NERLDC and give comments, if any, by 20.02.18. If no comments received from any SLDCs of NER, TTC, ATC & TRM figures of State control area and group of control areas as assessed by NERLDC will be considered as final and may be uploaded on website.

As per discussions in 122<sup>nd</sup> OCC meeting of NERPC, all SLDCs of NER may host the assessed TTC / ATC / TRM figures on their website for information dissemination.

**Deliberation in the meeting**

NERLDC informed that SLDC, Ar.Pradesh would give presentation in the 143<sup>rd</sup> OCC meeting. Thereupon only SLDC Nagaland and SLDC Mizoram would be left. EE(Trans), DoP Nagaland once again requested NERPC to hand over one no. dongle and laptop so that SLDC may initiate the process of TTC/ATC calculation.

NERLDC has assessed TTC of each state control area of NER, each state subsystem on behalf of SLDCs of NER and group of control-area wise TTCs for NER Grid for the month of March'18:

States	Off-peak		Peak	
	N-0	N-1	N-0	N-1
Arunachal	214	184	212	182
Assam	1696	1525	1717	1537
Manipur	338	259	338	263
Meghalaya	296	170	290	150
Mizoram	129	118	129	118
Nagaland	175	88	171	74
Tripura (including Bangladesh)	316	112	324	78

SLDCs are requested to check the TTC of their control areas as computed by NERLDC and give comments, if any, by 20.03.18.

If no comments received from any SLDCs of NER, TTC, ATC & TRM figures of State control area and group of control areas as assessed by NERLDC will be considered as final and uploaded on website.

*The Sub-Committee noted as above.*

*Action: All SLDCs/NERPC.*

**D.5. Implementation of SPS for transfer of 160 MW power to Bangladesh through Tripura-Bangladesh link and modifications suggested for other SPSs in NER:**

In Special Meeting on SPS, UFR etc. held on 23.06.17, Chief Manager, NERTS, POWERGRID presented the draft scheme to implement the suggested SPS for transfer of 160 MW power to Bangladesh through Tripura-Bangladesh link. The Sub-Committee discussed the suggested schemes in detail and agreed in principle to implement the schemes.

The forum requested NERPC to take up the matter with CEA/CTU/NLDC for implementation at the earliest after vetting in OCC forum.

In 140<sup>th</sup> OCCM, S.E. (C&O), NERPC informed due to prior engagements of Member Secretary, NERPC the visit to Bangladesh could not be scheduled. Further, he mentioned that methodology of funding of the above tour has to be concurred by MoP. He mentioned that NERPC will discuss with MoP/CTU/NLDC for above visit and intimate in next OCC meeting.

The 141<sup>st</sup> OCC forum felt that all issues related to clearances and funding need to be cleared before the visit. Members requested NERPC to write to GM, NLDC for initiation of the process at central level.

**Deliberation in the meeting**

SE(O&P),NERPC informed that NERPC has already written letter to ED,NLDC in this regard and the reply is awaited.

*The Sub-Committee noted as above.*

*Action: NERPC.*

**D.6. Modus-Operandi for SPS mock testing:**

The 138<sup>th</sup> OCC forum requested NERTS to prepare a draft sequence of operation for each SPS and present in next OCC for ratification. The date for SPS 2 and SPS 3 mock testing will also be finalized in next OCC Meeting.

The 140<sup>th</sup> OCC forum opined that NERPC/NERLDC may find some experts from the region to solve this long pending issue and if not, the same may be called from other

region. The forum requested OTPC to intimate the details of their action plan for addressing the issues at their end pertaining to the successful operation of SPS-2 & 3 at the earliest.

NERPC vide letter dated. NERPC/SE(O)/OCC/2018 dated 08.02.2018 has requested OTPC to implement the changes as early as possible.

OTPC vide mail dated. 26.02.18 has intimated that Modified SPS-2&3 has been taken into service w.e.f. 26.02.18(10:45hrs) with 15ms time delay at OTPC end.

Since both SPS-2& 3 are operational within the stipulated time delay the forum may approve that grant of any shutdown related to Palatana ATS would be unconditional of generation backing down at Palatana GBPP.

**Deliberation in the meeting**

GM,NERLDC informed that though currently s/d of Palatana ATS is being allowed without generation backing down, a mock test would be very fruitful. The forum after detailed deliberation requested NERPC to schedule mock test with representatives from NERTS, TSECL, OTPC, NERLDC & NERPC at the earliest.

***The Sub-Committee noted as above.***

***Action: OTPC//NERPC/NERLDC.***

**D.7. Voltage Deviation Index of PALATANA and BgTPP:**

As per presentation given by OTPC, Palatana in 140<sup>th</sup> OCC meeting, units of Palatana are not absorbing reactive power even in case of 400 kV bus voltage at Palatana is above 420 kV. As per VDI reports issued by NERLDC and uploaded in website, the bus voltage at 400 kV are found to be out of IEGC band (above 420 kV) for more than an hour on regular basis.

Being generator buses they are supposed to control their MVar injection / drawal and maintain the bus voltage within IEGC band at all times.

In 141<sup>st</sup> OCCM, NERLDC informed that OTPC has submitted 5min interval data and it has been found that the absorption is not adequate. The forum requested NERLDC to circulate the correspondence with OTPC. OTPC was advised to look into the matter of reactive absorption during high voltage condition and improve upon the same.

**Deliberation in the meeting**

Manager, OTPC informed that control through tuning of AVR is being carried out and OTPC would revert back to the forum with satisfactory results. The forum decided to drop the agenda item and review later on.

***The Sub-Committee noted as above***

***Action: OTPC.***

**D.8. Update on Real Time Energy Assessment for Effective Grid Management:**

In 140<sup>th</sup> OCCM, NERPC intimated that the process of signing tripartite agreement between CDAC, Powergrid and L&T was in progress. He requested NERTS to expedite the matter.

In 141<sup>st</sup> OCCM, all the SLDCs confirmed the receipt of server at their premises. DGM,SLDC,AEGCL informed that static IP and SIMs have been procured by them.

**Deliberation in the meeting**

DGM (AM) NERTS requested NERPC to send the Tripartite Agreement for signature of GM, NERTS urgently.

***The Sub-Committee noted as above.***

***Action: CDAC/NERPC***

**D.9. Recording of operational instructions over VOIP in RLDC:**

In 140<sup>th</sup> OCCM, POWERGRID intimated that due to GST issue the issue was delayed but the same now has been resolved and the award will be completed by January, 2018.

**Deliberation in the meeting**

Manager, NERTS informed that re-tendering is in process and order would be placed by Mar'18/ April'18. Delivery would be by May'18/ June'18.

***The Sub-Committee noted as above.***

***Action: NERTS***

**D.10. Telemetry & Voice Communication Problem:**

Telemetry problem: Annexure-D.10 attached in tabular format.

Voice Communication problem: Annexure-D.10 attached in tabular format.

**LOKTAK and DOYANG all type of voice communication out:**

All type of voice communication (BSNL Land line/Mobile/VOIP) with NHPC, LOKTAK and DOYANG is out since 15th February'18. Even adjacent S/Ss are also unable to reach LOKTAK/DOYANG. In view of the outage of voice communication system shutdown co-ordination, scheduling, reporting as well as realtime grid operation is severely affected.

**Prior information /approval is not taken for telemetry related activity.**

Before working on telemetry equipment in S/S, NERLDC is not being informed due to which frequently it is seen that important RTU data goes out during grid emergency condition. To maintain proper information flow it is important to take approval from NERLDC Control room before doing any work in telemetry system.

**Deliberation in the meeting**

Manager, NERTS stated that since the list of Telemetry and Voice Communication discrepancies is being highlighted in the meeting itself, restoration status cannot be provided at such short notice. SE(O&P), NERPC requested NERLDC to kindly circulate the list two days prior to OCC to concerned utilities so that latest status may be reviewed in OCC forum.

Sr. Manager, NEEPCO informed that Doyang LDMS is working properly, there seems to be some issue with communication link till Dimapur. NERTS informed that due to fire at Dimapur S/Sn link upto Misa is disconnected right now, restoration activities are going on presently. Doyang ICCP would be restored by April'18. NHPC representative informed that upon preliminary inspection it has been found that PLCC is operational but some problem is there in Broadband. He assured that problem would be resolved by Mar'18.

NERLDC informed the forum that ICCP link was taken under s/d by POWERGRID telecom on 10.03.18(13:00hrs to 14:00hrs) for MUX replacement. Since outage of ICCP severely affects scheduling and real-time operation of the grid this sort of shutdown should be taken on with prior information and approval of beneficiaries in OCC forum. After detailed deliberation the forum decided that the modalities of communication related shutdown should be finalised. Members requested NERPC to invite POWERGRID telecom in next OCCM alongwith with officials (handling communication issues) from all utilities for this purpose.

***The Sub-Committee noted as above.***

***Action: NERTS, NERLDC, NERPC.***

**D.11. Low voltage issue in Tripura, Mizoram & Nagaland Power Systems**

POWERGRID Dimapur S/S is restored by 24th February'18. Even after restoration of Dimapur S/S, system voltage Aizawl and MELRIAT during morning and evening peak hours drops to 122 kV. NERLDC is taking all available corrective action by opening bus Reactors at Aizawl, Kumarghat, Imphal but still voltage remains low. Capacitive compensation at local level is necessary.

In 141<sup>st</sup> OCCM, it was decided that NERLDC/NERPC would conduct studies regarding Low voltage problem in Tripura, Mizoram in consonance with studies carried out by TSECL and P&ED Mizoram. Regarding funding for capacitor banks installation NERPC would take up the issue with IA/NLDC.

**Deliberation in the meeting**

Pls refer to discussion regarding Capacitor bank installation in **item No. 1.**

***The Sub-Committee noted as above.***

**D.12. Windy Weather Preparedness:**

NERLDC highlighted the issue regarding windy weather preparedness. NERLDC as a result of windy weather condition, chances of load crashes in the state system as well as tripping of critical grid elements that can lead to Grid Disturbances are high. In March'17, there were 29 Grid Disturbances and 29 load crashes reported while in April'17, number of Grid disturbances increased to 36 and load crashes to 48 Nos.

As a part of this preparedness, NERLDC has given an activity list that is to be followed by all states of NER. Those activities are follows:

1. Appropriate action for load – generation balance.
2. Keep frequency, line loading and voltage within prescribed limit.
3. During High Frequency, generation back down of machines within state power system.
4. During High Voltage, keep all 'Capacitors' out of service and all 'Bus Reactors' in service. Use 'Line Reactors' as 'Bus Reactors' after discharging the line.
5. During High Voltage, absorption of 'Reactive Power' by generating unit should be according to 'capability curves'.
6. Operation of Synchronous Condenser Mode in Hydro machine, if possible.
7. Maintain alertness on all substations, generating stations and control centers of state power systems

After detailed deliberation it was decided that NERPC would write to all transmission utilities for providing patrolling reports to RPC/RLDC. NERTS was requested to present Action Taken Report for installation of anemometers.

NERPC vide letter dated 05.03.2018 has written to all the utilities to keep the preparedness as discussed in the meeting.

**Deliberation in the meeting**

The forum requested all utilities to submit periodical patrolling reports and decided that compliance be reviewed under item **B.1(3)**.

***The Sub-Committee noted as above.***

***Action: All transmission utilities.***

**D.13. Integration of new RTUs at RHEP:**

GE supplied RTU at RHEP will be provided for accommodating the two new 132 kV extension bays being constructed by us at RHEP in the first-second week of March 2018. Integration of new RTU with existing RTU at RHEP and NERLDC control centre shall be required. Hence special permission may be required through appropriate forum in this regard.

In 141<sup>st</sup> OCCM, Sr. Manager, NEEPCO informed that RTUs are under tendering process. In absence of DoP Ar. Pradesh the forum decided to take up the item in next OCC for clarification and resolution.

**Deliberation in the meeting**

Sr. Manager, NEEPCO informed that RTU procurement is under tendering process and would be commissioned by Dec'18.

***The Sub-Committee noted as above.***

***Action: NEEPCO.***

**D.14. Opening of OTPC GTG-1 Breaker Due to Spurious SPS-3 Signal from Silchar SS:**

At 16:34:23 hrs on dated 08/02/2018, Spurious SPS-3 Signal Received from Silchar end and as per SPS-3 Logic GTG-1 Breaker get Open, along with GTG-1 Tie and GTG-2 tie breaker., and Our GT-1 Came into House Load.

On telephonic conversation with Silchar SS, it came under notice that they are performing Battery Bank Switching at Silchar substation at the same Time, which might be resulting of sending SPS-3 Signal.

In 141<sup>st</sup> OCCM, NERTS representative informed that upon replacement of battery bank at Silchar S/S, BCU restarted. This may have resulted in spurious SPS-3 signal being sent to Palatana. He informed that ALSTOM would visit Silchar S/S very soon and the joint investigation report would be submitted to the forum.

SE(O&P),NERPC strongly expressed displeasure for the irresponsible activities by NERTS. He again reiterated that for S/S concerned with SPS has to inform concerned utilities upon undertaking any maintenance related activities that may result in untoward SPS operation.

NERLDC highlighted about the same kind of event was observed at 18:05 Hrs on 21st Sep'17. Palatana GTG- I & II tripped at 18:05 Hrs on 21st Sep'17 due to suspected mal-operation of SPS-3. This issue was taken up in various meetings of NERPC. NERLDC informed that in the special meeting of NERPC held on 11th Oct'17 at Shillong, it was decided that spurious operation of SPS-3 on 21st Sep'17 will be investigated by POWERGRID and come out with report within 1 week. NERLDC informed that this matter was discussed in subgroup meetings & 48th PCC meeting also. However, report has not been submitted by POWERGRID till date. The forum requested POWERGRID to submit the report at the earliest.

**Deliberation in the meeting**

DGM(AM), NERTS informed that due to operational mistake in course of changeover of DC battery bank the spurious signal was generated. However restart of BCU should not send DT signal, and OEM has been called to rectify the error. The forum felt that BCU problem should be followed up in PCC and decided to drop the agenda item.

***The Sub-Committee noted as above.***

**D.15. Balipara PMU voltage problem while switching 400 kV Balipara-Bong-3**

To contain the high voltage everyday NERLDC open 400 kV lines. But whenever 400 kV Balipara Bongaigaon line-3 opens, it has been observed that the 400 kV voltage at Balipara PMU dips from 417 kV to 192 kV. This type of voltage dip occurs regularly during hand tripping of the above said line.(Attached mail dated 3/2/18).Corrective action is necessary at BALIPARA end.

**Deliberation in the meeting**

NERLDC highlighted that whenever 400 kV Balipara Bongaigaon line-3 is opened to control Over Voltage, it has been observed that the 400 kV voltage at Balipara PMU dips from 417 kV to 192 kV. This type of voltage dip occurs regularly during hand

tripping of the above said line and is creating a problem for real time operators. NERLDC also informed that the issue was taken up with NERTS previously but rectification is yet to be done.

DGM(AM), NERTS informed that OEM has been called to rectify the issue.

***The Sub-Committee noted as above.***

***Action: NERTS***

**D.16. URTDSM Project in NER:**

- The Notification of Award for URTDSM Project is placed on 15-01-2014.
- The Project dead line to complete is on 16-01-2016 (24 months from NOA)
- At present Control Centre Hardware System at NERLDC, SLDC-NEHU, SLDC-Kahilapara installed but not powered up.

Quick Implementation of URTDSM project will help the Grid Operator for better visibility of high accurate real time data with a high speed data sampling (25samples/sec) and also Analytical software for linear state estimation, parameter estimation etc.,

Advance User Interface will help the Grid Operator for oscillation monitoring, Voltage, Frequency, Phase Angle, Active Power Contours on geo-special dynamic pictures.

URTDSM Project monthly progress is to be reviewed in OCC for smooth and speedy completion of the Project.

**Deliberation in the meeting**

SE(O&P), NERPC stated that the URTDSM project has been discussed in various forum of NERPC and is still under implementation. NERLDC informed that the project has been delayed by almost two years which is hampering monitoring grid parameters. A presentation in this regard would be made by DGM (URTDSM), NERLDC in the next OCC & NETeST Meetings.

***The Sub-Committee noted as above.***

***Action: NERLDC***

**D.17. CT Ratio of Transmission Lines & Enhancement of Loadability of lines in NER:**

As deliberated in 125<sup>th</sup> OCC meeting held on 14th September, 2016 at Guwahati double jumpering of bay and line before the CT upgradation work was to be

completed, so that full capacity of CTs can be utilized for loading the lines.

**Deliberation in the meeting**

Latest status as per 142nd OCC is given below:

Name of the line	CT Ratio at either end (current)		CT Ratio at either end (required)		No. Of CTs required		Latest status
	Stn A	Stn B	Stn A	Stn B	Stn A	Stn B	
132 kV AGTPP-Agartala-I	600/1	400/1	800/1	800/1	3 by PGCIL	4 by PGCIL	completed
132 kV AGTPP-Agartala-II	600/1	400/1	800/1	800/1	3 by PGCIL	4 by PGCIL	completed
132 kV Jiribam-Aizwal	400/1	400/1	600/1	600/1	3 by PGCIL	4 by PGCIL	June'18
132 kV Jiribam-Haflong	400/1	400/1	600/1	600/1	3 by PGCIL	4 by PGCIL	June'18
132 kV Khandong - Umrangso-Haflong	300/1	400/1	600/1	600/1	3 at Khandong by NEEPCO, 3 at Umrangso by AEGCL	3 at Umrangso by AEGCL, 3 at Haflong by PGCIL	NEEPCO, PGCIL-Complete AEGCL-To update
132 kV Loktak - Imphal-II	400/1	600/1	600/1	600/1	3 by NHPC		completed
132 kV D/C Doyang - Dimapur	300/1	600/1	600/1	600/1	3 by PGCIL & 6 by NEEPCO		PGCIL-Sep'18 NEEPCO-To update
132 kV Khandong - Khliehriat-I	300/1	300/1	600/1	600/1	3 by NEEPCO	3 by PGCIL	PGCIL-Sep'18 NEEPCO-done
132 kV Khandong - Kopili I & II	300/1	300/1	600/1	600/1			PGCIL-Sep'18 NEEPCO-done

DGM(MO), NERLDC informed that for 132kV Dimapur – Dimapur CT ratio at Dimapur (NAG) end has been adopted as 1200/1. This is causing tremendous error

in reading. EE(Trans), DoP Nagaland assured that the matter would be looked into and he would revert back to the forum.

***The Sub-Committee noted as above.***

***Action: All concerned utilities.***

**D.18. Procedures of 1st time charging of new non-ISTS elements to nodes of regional entities**

As per clause no. 4.1 & 4.2 of CEA (Technical Standards for Connectivity to the Grid) regulations, 2007; a new connection shall not cause any adverse effect on safe operation, integrity and reliability of the grid.

In order to ensure the safe operation, integrity and reliability of the regional grid while charging new non-ISTS elements to nodes of regional entities; it is proposed to follow a procedure by the requester.

In 141<sup>st</sup> OCCM, NERLDC presented the draft procedures for interconnection of new non-ISTS elements to node of regional entities. It was clarified that this is in the event of difficulties faced regarding integration of Tezu ICT. Sr. Manager, NEEPCO informed that for charging of 132kV Pare HEP switchyard, NERLDC is insisting for charging instruction from CTU. He stated that for the 1.4km LILO portion of 132kV RHEP-Lekhi clearance from RIO has already been obtained. Therefore he requested the forum that back-charging of Pare switchyard be allowed for testing purposes, subject that injection into the grid would only be done after charging instruction from CTU is obtained. NERLDC clarified that as per CI.(1) of "Procedure for Integration of new transmission element into the grid" formulated by NLDC charging instruction from CTU is mandatory. NEEPCO agreed to obtain CTU charging instructions at the earliest.

Draft procedures were mailed to all constituents for their suggestions/comments. No comments received by NERLDC till date.

Procedures of 1st time charging of new non-ISTS elements to nodes of regional entities may please be considered as final document.

**Deliberation in the meeting**

NERLDC informed the forum that since no comments have been received from any utilities, the Procedures of 1st time charging of new non-ISTS elements to nodes of regional entities will be considered as final document.

Member Secretary, requested NERLDC to upload the document in NERLDC website.  
The agenda may be dropped.

***The Sub-Committee noted as above.***

**D.19. Automatic Under Frequency Load Shedding(AUFLS):**

In 7<sup>th</sup> NPC meeting held on 08.09.17 it was agreed that there is need for review of the quantum of load shedding without introduction of additional slabs/stages of frequency. And therefore RPCs may please deliberate on additional slabs of frequency as well as raising the set frequency for UFR operation.

**Deliberation in the meeting**

SE(O&P), NERPC informed that as per deliberations in last NPC meeting, 800MW load shedding is required in NER. The forum expressed apprehension at such a large quantum of load shedding under present circumstances. It was decided to review the agenda item once recommendations of M/s POWERTECH Labs are submitted to MoP.

***The Sub-Committee noted as above.***

**D.20. Mapping of feeders:**

In 7<sup>th</sup> NPC meeting held on 08.09.17 it was requested that RPCs may please give the details/ progress of feeder mapping to NPC.

**Deliberation in the meeting**

Sr. Engineer, NERLDC clarified that feeders designated for UFR operation is to be mapped in SCADA. The forum requested all SLDCs to kindly give the status.

***The Sub-Committee noted as above.***

***Action: All SLDCs.***

**D.21. Ensuring proper functioning of Under Frequency Relays(UFR) & df/dt Relays:**

In 7<sup>th</sup> 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.

**Deliberation in the meeting**

SE(O&P),NERPC informed that as mandated periodical inspection of UFR needs to be carried out. In this regard he requested help of NERTS by providing suitable kits.

DGM(AM),NERTS stated that Frequency Injection Kit is available in PGCIL stations and any logistical help may be provided. He further requested that an action plan in this regard may be devised and handed over for future course of action.

***The Sub-Committee noted as above.***

***Action: NERTS, NERLDC, NERPC.***

**D.22. Replacement of meters:**

In 7<sup>th</sup> NPC meeting held on 08.09.17 it was decided that NPC Secretariat may develop a framework for replacement of meters after taking inputs from RPCs on the practice being followed by the utilities. In this regard, a concept/note is given at **Annexure-D.22** for further discussion.

**Deliberation in the meeting**

DGM(MO), NERLDC stated that the reply to the queries would be furnished by NERLDC. It was also clarified that for states installation of SEM at intra-State system would be undertaken under SAMAST scheme.

***The Sub-Committee noted as above.***

**D.23. Outage of DIMAPUR\_PG Substation (141st OCCM MOM D.15)**

During the 141st OCC Meeting (Agenda Item No. D-15), POWERGRID apprised the forum about incidence of fire at Dimapur Substation on 15.01.2018 & submitted a detailed report as appended hereunder:

Fire incidence at Dimapur Control Room occurred on 15/01/2018 causing major damage to Control & Power Cables in the Control Room. All efforts were put for dousing the fire so as to reduce the damage to bare minimum. Feeders connected to Dimapur were hand tripped for averting catastrophic damage. Immediately after dousing the fire, inspection of all control and relay panels were carried out along with power and control cables. It was found that most number of cables have sustained damages. Envisaging there might be instances of protection maloperation in case the elements are put in service without replacement of existing cables, it was decided for

taking up en-mass replacement of all cables in the switchyard/ Control Room as preventive measure.

However, during this period all arrangements were available for bringing into service at short notice. Replacement of cables is presently in its final stage of completion and as on date Dimapur-Dimapur-II, ICT-I in addition to Dimapur-Dimapur-I and Dimapur-Imphal are in service. Balance elements shall be progressively brought into service by 20.02.2018.

POWERGRID had constituted an internal committee for enquiry into the reason of fire incident. The committee in its report has observed that the fire had triggered from an RTU panel inside the Control Room and despite best efforts for extinguishing the same, managed to engulf the major portion of the Control Room.

Conclusively, the incident can be described as a sudden occurrence/ break out of fire and beyond complete control of POWERGRID. It may also be noted that it was by dint of immediate fire quenching measure that extensive damage to other part of the station could be avoided.

Further during deliberation of 141st OCCM, EE (Trans), DoP Nagaland informed the forum that currently there is restriction on Nagaland drawal in peak hours. He requested that 132kV Dimapur-Kohima be restored at the earliest. NERTS informed that 132kV Dimapur-Kohima would be restored by 20.02.2018. Members urged upon NERTS to complete restoration works at the earliest including communication system.

### **Deliberation in the meeting**

DGM (AM), NERTS informed that Dimapur substation has been restored in all respect on 24.02.2018 in war footing and the forum appreciated the all-out effort of POWERGRID for restoring the system in minimum time frame.

***The Sub-Committee noted as above.***

### **METERING RELATED ITEMS**

#### **D.24. Procurement of additional 70 Laptops:**

Revised Target as intimated by NERTS in 140<sup>th</sup>. OCC:

- i. e-RA : Feb'18
- ii. LOA : March'18
- iii. Material Dispatch : April'18

OCC expressed serious concern over the delay and stated that there should not be any further delay.

In the 141st. OCC meeting, NERTS representative intimated that the scheme would be further delayed by 2-3 months as fresh offer would have to be obtained.

OCC viewed the issue very seriously and advised NERTS to stick to the timeline as agreed in 140<sup>th</sup>. OCC and report status in next OCC meeting.

**Deliberation in the meeting**

NERTS provided the latest status as under:

- e-RA: 17.03.18
- LOA: by 1<sup>st</sup>. week of April'18.
- Supply: May'18

NERLDC to provide break-up of physical locations where 70 Laptops are to be supplied to take care of GST issues.

***The Sub-Committee noted as above.***

***Action: NERTS.***

**D.25. Installation of new L&T SEMs in NER:**

Regarding installation of SEMs at Pare and Kameng HEP, NERTS agreed to take necessary action at the earliest.

NERTS also agreed to expedite installation of check meters in ISGS and report the status.

In the 141st. OCC meeting, NERTS representative stated that installation would be carried out at the earliest and status would be furnished in next OCC.

**Deliberation in the meeting**

NERTS provided the latest status as under:

- Pare HEP: completed
- Kameng HEP: NERTS to install within 2 days. NEEPCO to ensure availability of site personnel for necessary coordination.

***The Sub-Committee noted as above.***

***Action: NERTS.***

**D.26. AMR in NER:**

NERTS stated the target as below in 140<sup>th</sup>. OCC meeting:

- i. Tendering : Jan'18
- ii. Bid opening : Feb'18
- iii. LOA : Mar'18

In the 141st. OCC meeting, NERTS representative stated that Tendering would be by end of Feb'18.

**Deliberation in the meeting**

NERTS provided the latest status as under:

- Tender: 20.03.18
- Bid sale: till 20.04.18
- OBD: 27.04.18
- LOA: 15.06.18

***The Sub-Committee noted as above.***

***Action: NERTS.***

**D.27. Testing of SEMs at accredited laboratory:**

In the 141st. OCC meeting, NERTS representative stated that tendering would be in Feb'18 for testing of meters at site.

**Deliberation in the meeting**

Manager, NERTS informed that current estimate is based on all 234 SEMs in NER with appx. Cost being INR 22lakhs(@8100/meter). DGM(MO),NERLDC clarified that testing is required only for those meters which will remain in service after 5 years. However, meters withdrawn from service testing will not be required.

DGM (AM), NERTS informed that storage and handling of items has financial implication and accordingly, requested NERLDC to divert the discarded meters to the constituents which they may use in their own system.

It has been agreed that NERTS and NERLDC will work out the following:

- (i) No. of meters to be tested
- (ii) No. of discarded meters to be handed over to constituents for their use.

DGM (AM), NERTS further informed that POWERGRID will scrap the discarded meters if constituents are not willing to accept those.

***The Sub-Committee noted as above.***

***Action: NERTS.***

**D.28. Procurement of DCD:**

As agreed in 139th. OCC, NERTS was once again advised to initiate necessary action for procurement of DCD.

In the 141st. OCC meeting, NERTS representative intimated that action has been initiated for DCD procurement.

**Deliberation in the meeting**

NERTS informed that DCDs would be supplied by May'18 subject to consent of the party which is being awaited.

***The Sub-Committee noted as above.***

***Action: NERTS.***

**D.29. Erratic reading of SEM:**

Regarding rectification of meter error at Dullavcherra end of 132 KV Dullavcherra-Dharmanagar feeder, NERTS representative intimated that rectification would be done at the earliest. Regarding rectification of meter error at –

1. Dullavcherra end of 132 KV Dullavcherra-Dharmanagar feeder
2. Jiribam(PG) end of 132 kV Jiribam(PG)-Jiribam(Manipur)

**Deliberation in the meeting**

NERTS informed the latest status:

- Durlavcherra (AEGCL) – upon inspection found that Durlabcherra end current and voltage was in order Confirmatory Check of reading by Mar'18.
- Jiribam(PG) – upon inspection found that Jiribam end current reading is very low and voltage was in order. Confirmatory Check of reading by Mar'18.

NERLDC to provide both end readings to NERTS for analysis.

***The Sub-Committee noted as above.***

***Action: NERTS.***

**D.30. Commissioning of RS-485 scheme in all ISGS of NER:**

NERTS was advised to initiate action regarding implementation of RS-485 scheme in all ISGS at the earliest in line with point 4 of MOM of SEM meeting. It was agreed that if necessary, L&T personnel should be called for this.

Regarding detailed extensive training by L&T, it was decided it would be carried out after implementation experience of RS-485 in some Stations and training may be in one such Stations.

In the 141st. OCC meeting, NERTS representative intimated that status would be furnished in next OCC meeting.

**Deliberation in the meeting**

NERTS informed that Kopili HEP has been identified as the pilot project. In this regard vendors have been approached and quotations would be received within 21.03.18 for 24/25 Locations. However, NERLDC may finalise the no. of locations. Regarding extensive training by L&T on metering issues it was decided NERLDC will finalise date during April'18 for conducting the training by POWERGRID preferably at Misa Sub Station.

***The Sub-Committee noted as above.***

**Action: NERTS.**

**D.31. SEM for two 132kV extension bays at RHEP:**

SEM meters for commercial accounting will have to be put in place at the two C&R panels of the 132 kV extension bays, for which requisition to concerned authorities will have to be placed through appropriate forum.

DGM(MO),NERLDC informed that NERTS would be instructed to despatch and install the two SEMs at the earliest.

*In the 29<sup>th</sup>. Metering Meeting, it had been already agreed that SEMs would be installed without availing shutdown and NERLDC would take care of accounting during the period.*

**Deliberation in the meeting**

Latest status:

- For 132kV RHEP-Chimpu – by Mar'18
- For 132kV RHEP-Itanagar – by Mar'18

***The Sub-Committee noted as above.***

**Action: NERTS.**

**D.32. Providing 50 SEMs, 6 Laptops and 6 DCDs to TSECL:**

In the 141st. OCC meeting, it was decided that 3 DCDs out of those to be supplied to TSECL would be retained by NERTS on loan basis in view of requirement of additional DCDs for Pare and Kameng, These would be replenished after procurement of new DCDs.

**Deliberation in the meeting**

DGM (AM), NERTS informed the forum that the meters, laptops and DCDs were made available to TSECL at Kumarghat Sub Station during last week of January 2018 based on their request for urgent requirement. Further, invoice was also raised during November 2017.

Sr. Manager, TSECL informed that by 31.03.18 the materials would be collected from Kumarghat S/Sn of NERTS. He intimated that payment would released within 15 days of receipt of materials.

***The Sub-Committee noted as above.***

***Action: TSECL.***

**D.33. DCD of Sonabil sub-station of Assam faulty since last 2 months:**

DCD replacement / alternative arrangement for Meter data downloading to be arranged.

**Deliberation in the meeting**

DGM(MO), NERLDC suggested that personal laptop may be used to collect and send SEM reading at Sonabil. AEGCL agreed. NERTS would provide USB-Optical port cable.

***The Sub-Committee noted as above.***

***Action: AEGCL.***

**D.34. DC of OTPC was decided by NERLDC on dated 08/03/2018 (DC R-1):**

On dated 08/03/2018 OTPC GT-2 was trip, so the DC R-1 sent to NERLDC considering GT-1 Base load @ 330 MW (less than IC due high ambient Temperature) from 13:45 hrs to 17:00 hrs, however NERLDC has decided our DC @ 324.1 MW for block 56 and 327.5 MW for Block 57 to 60. Deciding the DC of OTPC by NERLDC is not as per IEGC 5.2 (e) and 6.4 (16).

**Deliberation in the meeting**

After detailed deliberation the following were decided:

- DC as declared by the generator would be used in the Accounting for the purpose of computation of fixed charges.
- RLDC would use necessary correction for temperature to arrive at the figure of scheduled generation.
- Day ahead temperature as furnished by OTPC would be used by RLDC for the purpose.

***The Sub-Committee noted as above.***

**ADDITIONAL AGENDA ITEM**

**D.35. Installation of VINPLUS in Udaipur (TSECL) PC:**

TSECL representative intimated that there was some problem in the Computer at Banduar (Udaipur) and since then VINPLUS has not been working in the PC. He requested NERTS to depute its representative to re-install VINPLUS.

NERTS agreed to do the needful.

***The Sub-Committee noted as above.***

***Action: NERTS/TSECL.***

**Date & Venue of next OCC meeting**

It is proposed to hold the 143<sup>rd</sup> OCC meeting of NERPC on second week of February, 2018. However, the exact date and venue will be intimated in due course.

The meeting ended with thanks to the Chair.

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**List of Participants in the 142<sup>nd</sup> OCC Meetings held on 14.03.2018**

SN	Name & Designation	Organization	Contact No.
	<b>No Representatives</b>	<b>Ar. Pradesh</b>	-
1.	Sh. Dipesh Ch. Das, AGM (LDC)	Assam	09954110254
2.	Sh B.C. Borah, AGM, SLDC	Assam	09435119248
3.	Smt. Jharna Devi, AM (HQ)	Assam	08822798944
4.	Sh. K. Goswami, Consultant, APDCL	Assam	08638487200
5.	Sh. S. Chandradhaja, DGM, SLDC	Manipur	09862296029
6.	Sh. T. Gidon, EE, SLDC	Meghalaya	09774479956
7.	Sh. B. Nikhla, EE	Meghalaya	09436314163
8.	Sh. B. Narry, AEE, C&C S/D	Meghalaya	09089000911
	<b>No Representatives</b>	<b>Mizoram</b>	-
9.	Sh. Nitovi A. Wotsa, EE (Trans.), DMR	Nagaland	09436004928
10.	Sh. Mhonlumo Kikon, EE (TR), Mokochung	Nagaland	09436005616
11.	Sh. L. Singson	Nagaland	09436831129
12.	Sh. Rokobeito Iralu	Nagaland	09436832020
13.	Sh. Debabrata Pal, Sr. Manager (Comml.)	Tripura	09436500244
14.	Sh. Joypal Roy, Sr. Manager (E/M)	NEEPCO	09435577726
15.	Sh. N.R. Paul, GM	NERLDC	09436302723
16.	Sh. R. Sutradhar , DGM (MO)	NERLDC	09436302714
17.	Smt. Momai Dey, Sr. Engineer	NERLDC	09436302716
18.	Smt. Palash Jyoti Borah, Engineer	NERLDC	08761093397
19.	Sh. Ankit Jain, Sr. Engineer	NERLDC	09436335381
20.	Sh. Keshab Borah, AE	NERLDC	07399276312
21.	Sh. P. Kanungo, DGM (AM)	PGCIL	09436302823
22.	Sh. S.K. Singh, Mgr (AM)	PGCIL	09435706899
23.	Sh. Rodik Hmad, M (E)	NHPC	09402277414
24.	Sh. Narendra Kr Gupta, Sr. Manager (O&M)	OTPC	09774253426
25.	Sh. Kangkan Paul, Dy. Manager	NTPC	09435029230
26.	Sh. P.K. Mishra, Member secretary	NERPC	09968380242
27.	Sh. B. Lyngkhoi, Director/S.E (O&P)	NERPC	09436163419
28.	Sh. S. Mukherjee, AEE	NERPC	08794277306

**ANALOG AND DIGITAL DATA STATUS OF POWERGRID/ISGS**  
**(As dated 13.02.2018)**

Sl. No.	RTU STATION	ANALOG DATA	DIGITAL DATA
1.	BALIPARA	Data of 400/220 kV ICT 2 is wrong. Data of 220 kV Balipara - Sonabil Line 1, <b>Data of 220/132 kV ICTs wrong</b>	F_R3_R (BONGA_PG LINE 2 REACTOR), F_R4_R (BONGA_PG LINE 1 REACTOR), F_R2_R (BNC_PG LINE 1 REACTOR) data SUSECT.
2.	BONGAIGAON	400kV Bonga-BTPS 1 and 2 MW suspect. 400 kV Bongaigaon-Azara Line reactor suspect.	F_28(Tie CB between Aipurduar-2 and Balipara-3), F_21(BTPS LINE 1), F_06(400 kV ALIPURDUAR 1) F_24(AZARA_AS line),F_10(tie between balip-2 & reactor-2) ,F_20(BTPS-2),F_21(BTPS-1), B_01_R(Tertiary Reactor-1),B_02_R(tertiary Reactor-2) SUSPECT. <b>CB Status of lines turns to suspect as Line Shutdowns.</b>
3.	SALAKATI	All data suspect.	All data suspect.
4.	DIMAPUR	All data suspect.	All data suspect.
5.	IMPHAL	132 kV Silchar line 1 data, 20 MVAR REACTOR SUSPECT	
6.	ITANAGAR	All data suspect.	All data suspect.
7.	KOLASIB	All data suspect.	All data suspect Since 22/05/2017.
8.	MISA		F_04 (400/220 kV ICT 1), B_03_R (Tertiary Reactor 3), E_L3 (Kopili-3), E_07 (220 kV B/C).
9.	BNC (HVDC)	Firing Angle of pole 1 & 2, 400 kV Ranganadi - BNC Line I & II position swapped at BNC end, SUBAN_NH 3(BNC to SUBAN Line3) MW&MVAR Data Suspect, 132 kV Transfer Bus Data Suspect.	F_01(ICT-1), F_02(Tie between ICT-1 & ICT-2), F_03(ICT-2), F_04(SUBAN-4), F_4R_R(SUBAN-4 Reactor), F_05(Tie between SUBAN-3 & SUBAN-4), F_06(SUBAN-3), F_R3_R(SUBAN-3 Reactor), F_R2_R(SUBAN-2 Reactor), F_R1_R(SUBAN-1 Reactor), F_08(Tie Between SUBAN-1 & SUBAN-2), F_09(SUBAN-1),F_13(Filter-3), F_14(Filter-3 main), F_23(pole-1), F_2W(Tie between bus-3 &4), F_1W(Tie between Bus-1 &2), F_25(Bus reactor-2),F_26(Tie Between Bus Reactor-2 & Ranga-1), F_28(Pole-2 Bus-4) , F_29(Pole-2 Bus-2), F_31(Tie Between Ranga-2 & Balip-2), F_36(Tie Between Balip-1 & Balip-3), F_38(Filter-2), F_39(Tie Between Filter-2 & Filter-3), F_40(Filter-1), F_42(Tie Between Balip-4 & Bus Reactor-1), F_43(Bus Reactor-1), D_01(ICT-1 132 KV side), D_02(ICT-2 132 KV Side), D_03(BNC-1), D_04(BNC-2)
10.	ROING	All data suspect.	All data suspect.
11.	TEZU	All data suspect.	All data suspect.
12.	SILCHAR	400 KV Palatana line I &II Line flow do not show when are below 10MW, AZARA and Killing line reactors connection reversed,132kV Line-1 & 2 MELRI_PG Data Suspect	D_11, D_12(MELRI_PG Line 1 & 2)
13.	AIZWAL		D_L6 ( MELRI_MI LINE), D_R1_R (BUS REACTOR)

14.	<b>PALATANA</b>		D_07 (Surja_TE 2)
15.	<b>KOPILI</b>	Bus frequency and 220/132 kV 160MVA ICT 1 data is suspect	All CB Suspect.
16.	<b>DOYANG</b>	All data suspect.	All data suspect.
17.	<b>RANGANADI</b>	All data suspect.	All data suspect. Data is not stable.
18.	<b>KOPILI EX NO</b>	33 KV bus voltage suspect, 132 kV Bus 2 Voltage suspect, 132kV Bus 1 data suspect, 220 kV Bus 4 & 3 voltage data wrong, XFMR_S ED_T1 Data wrong.	D_06 (ICT-1).
19.	<b>BTPS (NTPC)</b>		A_08 (Unit 1), A10(Unit 2)
20.	<b>RC NAGAR</b>	Bus 2 frequency suspect	
21.	<b>LOKTAK</b>	Bus 1 Frequency & Voltage, 132/33 kV ICT All Data Suspect	D_G3( Unit 3), D_L3(132 kV Imphal Line ), D_L1(132 kV Rengpa Line), D_06 ( 132/33 kV ICT)
22.	<b>Mokokchung</b>	All data suspect.	All data suspect.