



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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Website: www.nerpc.nic.in

No. NERPC/SE (O)/OCC/2018/ **1696-1733**

Dated: December 26, 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. 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 151st OCC Meeting.

Sir/Madam,

Please find enclosed herewith the minutes of 151st OCC Meeting held at Guwahati on the **14th December, 2018** 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,

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. 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.



निदेशक / Director/ SE

North Eastern Regional Power Committee

MINUTES OF THE 151st OPERATION COORDINATION

SUB-COMMITTEE MEETING OF NERPC

Date : 14/12/2018 (Friday)
Time : 10:00 hrs
Venue : "Hotel Nandan", Guwahati.

The List of Participants in the 151st OCC Meeting is attached at **Annexure - I**

Shri P.K. Mishra, Member Secretary, NERPC welcomed all the participants to the 151st OCC meeting. He expressed satisfaction about large number of participation and hoped that the members would continue to contribute to the proceedings in a constructive manner. He listed the various ongoing projects in NER funded under PSDF and the progress was in the right track barring Ar. Pradesh and requested them to look into the matter as top priority. He also mentioned that as agreed in the 19th TCC/NERPC Meetings that ADMS Project shall also be tendered by NERPC for the benefit of the region and hence requested to constitute the sub-group during the meeting with members from all 7 NER States so that project can be completed on time.

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

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 150th MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 150th meeting of Operation Sub-committee held on 14th November, 2018 at Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2016/4556-4591 dated 6th December, 2018.

The Sub-committee confirmed the minutes of 150th 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 151st OCC:

State	R&U scheme	ADMS	Capacitor Installation	SAMAST**
Arunachal Pradesh	Pkg-I: Approved. Tender by Dec'18 Pkg-II: To be approved. Tender by Jan'19.	Revised DPR submitted	-	DPR submitted for Techno-Economic Appraisal.
Nagaland	Pack-A: Completed Pack-B: Dec'18 Pack-C: Dec'18 Pack-D: Completed.	Revised DPR yet to be submitted	To re-submit proposal to NERPC for Study.	DPR submitted for Techno-Economic Appraisal
Mizoram	Could not update due to absence of representatives			
Manipur	LOAs issued. Completion by Nov'18.	Revised DPR submitted	Submitted to NERPC for Study before sending to NPC/NLDC.	DPR submitted for Techno-Economic Appraisal
Tripura	Tentative Completion by 31.12.2018	Revised DPR submitted	To submit proposal to NERPC for Study.	DPR submitted for Techno-Economic Appraisal
Assam	Substation auxiliary and diagnostics tools - Tendering in process. LOA by Dec'18.	Revised DPR submitted	-	DPR submitted for Techno-Economic Appraisal
Meghalaya	MePTCL Balance items LOA by Oct'18 MePGCL – Erection complete by Mar'19	Revised DPR submitted. Query referred to DISCOM	-	DPR submitted for Techno-Economic Appraisal

Deliberation of the sub-Committee:

Director (O&P), NERPC informed that the 19th TCC/RPC approved the common tendering for ADMS. The forum unanimously nominated the following for the Tendering group:

1. Sh. N. Perme, SE(SO&PSC), DoP Ar. Pradesh
2. Sh. B. Borah, AGM, SLDC, AEGCL
3. Smt. K. Steela, DGM, SLDC, MSPCL
4. Sh. D.J. Lyngdoh, EE, SLDC, MeECL
5. Sh. B. Tlumtea, Sr.EE, SLDC, P&ED Mizoram
6. Sh. N. Wotsa, Sr.EE, DoP Nagaland
7. Sh. A. Debbarma, DGM, SLDC, TSECL
8. Sh. B. Lyngkhoi, Director NERPC - Convenor

Director, NERPC requested Assam, Manipur, Nagaland & Tripura to submit their reply to queries raised by TESC i.r.o. SAMAST positively by 18.12.18.

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 150 th OCC
63MVAR Reactor at Byrnihat to replace with 80MVAR Reactor	MePTCL	1 st NERSCT MoM to be recorded. MePTCL may initiate preparation of bid documents etc for the tendering process.
Repairing of R-ph bushing of 63MVAR L/R at Balipara for 400kV Balipara-Bongaigaon -II (out since 17.02.18)	NERTS	Completed on 10.12.18
Outage of 420kV 80MVAR L/R for 400kV Bongaigaon-NSLG-I at Bongaigaon - (out since 04.07.18)	NERTS	By January, 2019
132kV Dimapur - Imphal (out since 25.07.18)	NERTS	By January, 2019
63 MVAR B/R-4 at 400kV Biswanath-Chariali(out since 27.04.18)	NERTS	By December, 2018
132 kV, 20MVAR Bus Reactor at Roing out of service since 08:00 Hrs of 16.08.18 (Shutdown approved till 1600 Hrs of 31st August'18)	NERTS	Winding failure. Sent to factory
220kV Sonabil-Samaguri-I	AEGCL	By March, 2019

The Sub-Committee noted as above.

Action: All concerned utilities & NERPC.

3. Furnishing of various data for reliable grid operation:

Data regarding	Status as of 151 st OCC
DAS output for FRC calculation	NERLDC informed that during November'18 no such event occurred. NERLDC requested all the generators to submit DAS data in future whenever NERLDC will ask for the data after such event.
Patrolling report(s) for T/L**.	Patrolling report and vegetation clearance self-certification submitted for 132kV Balipara-Khupi. The forum decided that location number is to be identified in Sub-group for lines frequently tripping on vegetative faults. In the meantime, all utilities to submit patrolling report for lines under List of Important Grid Elements. The forum requested NERLDC to circulate List of Important Grid Elements. NERLDC informed that List of Important Grid Elements document is available in NERLDC website

The Sub-committee noted as above.

Action: All utilities as above.

4. DIFFERENCE IN ACTUALS VS LGBR:

Energy Requirement:

Name of State	Jul 18 (actual)	Jul18 (LGBR)	Aug 18 (actual)	Aug 18 (LGBR)	Sep 18 (actual)	Sep 18 (LGBR)	Oct 18 (actual)	Oct 18 (LGBR)
Ar. Pradesh	72.49	66.28	76.34	77.02	74.16	71.19	70.06	77.25
Assam	998.64	952.10	1039.01	970.21	950.19	934.64	815.67	885.83
Manipur	72.38	65.08	70.53	76.98	69.88	69.64	75.80	75.56
Meghalaya	169.75	155.00	162.17	159.00	150.14	164.00	144.61	166.00
Mizoram	46.53	45.43	58.96	44.80	58.04	39.37	70.64	44.19
Nagaland	82.22	80.84	80.88	79.25	80.49	76.88	74.27	69.66
Tripura	144.97	123.51	179.61	127.98	192.00	125.18	187.38	132.09

Energy Availability:

Name of State	Jul18 (actual)	Jul18 (LGBR)	Aug 18 (actual)	Aug 18 (LGBR)	Sep 18 (actual)	Sep 18 (LGBR)	Oct 18 (actual)	Oct 18 (LGBR)
Ar. Pradesh	77.75	99.88	81.81	96.23	81.12	82.62	67.90	77.45
Assam	975.84	992.22	991.95	967.37	987.64	859.96	772.79	898.78
Manipur	111.82	129.88	109.25	126.69	177.79	110.48	105.39	117.42
Meghalaya	293.16	312.29	285.36	322.71	276.17	308.96	200.13	274.43
Mizoram	85.38	97.31	92.74	99.89	111.76	89.77	106.29	83.22
Nagaland	79.00	99.30	84.88	99.50	81.24	87.96	68.17	88.06
Tripura	294.08	308.19	312.05	294.40	309.44	268.15	342.04	300.01

Demand:

Name of State	Jul18 (actual)	Jul18 (LGBR)	Aug 18 (actual)	Aug 18 (LGBR)	Sep 18 (actual)	Sep 18 (LGBR)	Oct 18 (actual)	Oct 18 (LGBR)
Ar. Pradesh	130.38	136.00	135.88	148	131.92	143	129.08	146.00
Assam	1862.54	1761.36	1833.85	1752.66	1865.26	1787.60	1785.42	1840.56
Manipur	174.16	162.83	177.32	173.10	184.39	168.04	187.28	175.61
Meghalaya	333.95	308.22	325.43	314.92	317.42	328.18	336.23	320.58
Mizoram	100.77	92.62	99.09	92.62	95.47	95.23	99.18	96.76
Nagaland	132.89	153.75	134.32	139.63	142.07	148.77	133.77	138.05
Tripura	298.12	322.71	291.86	327.32	296.01	359.46	269.32	312.39

Deliberation of the sub-Committee:

After detailed deliberation, it was decided that all SLDCs would furnish the reasons for mismatch at the earliest.

The Sub-committee noted as above.

Action: All SLDCs.

B.2. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING OCTOBER, 2018

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

NER PERFORMANCE DURING OCTOBER, 2018

States	Energy Met (MU)		w.r.t. Oct,18 % inc (+) /dec (-)	Energy Reqr. (MU)		w.r.t. Oct,18 % inc (+) /dec (-)	% inc (+) /dec (-) of energy reqr vs met. In Nov,18
	Nov-18	Oct-18		Nov-18	Oct-18		
Ar. Pradesh	61.92	66.14	-6.38	62.61	66.76	-6.22	-1.10
Assam	694.25	809.08	-14.19	710.63	833.04	-14.69	-2.30
Manipur	71.22	70.86	0.51	72.27	71.55	1.01	-1.45
Meghalaya	162.38	146.70	10.69	162.38	146.70	10.69	0.00
Mizoram	57.08	62.20	-8.23	57.73	62.71	-7.94	-1.13
Nagaland	55.40	67.23	-17.60	63.74	75.57	-15.65	-13.08
Tripura	112.05	129.05	-13.17	113.16	130.28	-13.14	-0.98
Region	1214.30	1351.26	-10.14	1242.52	1386.60	-10.39	-2.27

States	Demand Met (MW)		w.r.t. Sep,18 % inc (+) /dec (-)	Demand in (MW)		w.r.t. Aug,18 % inc (+) /dec (-)	% inc (+) /dec (-) of Demand vs met. In Oct,18
	Oct-18	Sep-18		Oct-18	Sep-18		
Ar. Pradesh	128	125	2.40	138	138	0.00	-7.25
Assam	1525	1704	-10.50	1547	1785	-13.33	-1.42
Manipur	189	185	2.16	189	187	1.07	0.00
Meghalaya	352	336	4.76	352	336	4.76	0.00
Mizoram	102	97	5.15	102	99	3.03	0.00
Nagaland	135	131	3.05	139	134	3.73	-2.88
Tripura	258	269	-4.09	259	269	-3.72	-0.39
Region	2620	2700	-2.96	2672	2790	-4.23	-1.95

REGIONAL GENERATION & INTER-REGIONAL EXCHANGE IN MU

AVERAGE FREQUENCY (Hz)

Month---->	Nov-18	Oct-18	Month---->	Nov-18	Oct-18
Total Generation in NER (Gross)	1355.751	1592.154		% of Time	% of Time
Total Central Sector Generation (Gross)	1023.114	1156.509	Below 49.9 Hz	10.01	11.71
Total State Sector Generation (Gross)	332.637	397.224	Between 49.9 to 50.05 Hz	80.54	79.34
<i>Inter-Regional Energy Exchange</i>			Above 50.05 Hz	9.45	8.95
(a) NER-ER	0.00	1.00	Average	48.31	49.97
(b) ER-NER	358.23	405.33	Maximum	50.25	50.20
(c)NER-NR	365.86	478.92	Minimum	49.69	49.69
(d)NR-NER	0.00	0.00			
© Net Import	-7.63	-74.59			

Deliberation of the sub-Committee:

NERLDC gave a presentation on the grid performance for the month of November'18 (**Annexure-B.2-a**). NERLDC also highlighted that Daily, Weekly and Monthly Voltage Deviation Report, Frequency Deviation Report and System Reliability Report for November'18 was 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. 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 Sub-Committee noted as above.

ITEMS FOR DISCUSSION

C. OLD ITEMS

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

During 151st OCC meeting, the status as informed by different beneficiaries is as follows:

SN	Items	Status as given in 150 th OCC Meeting		Status as given in 151 st 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	By Jan'19	To be submitted to NERLDC.	By Jan'19	To be submitted to NERLDC.
2	Kameng HEP of NEEPCO two units (2 x 150 MW) Next two units (2x150 MW)	To be reviewed	Already submitted.	To be reviewed	Already submitted.
3	400 kV D/C Silchar - Melriat line of PGCIL	Nov'18	To be submitted to NERLDC.	Charged on 28.11.18. To be dropped.	Already submitted.
4	400/220 kV 315 MVA ICT-II at Bongaigaon	Dec'18	Already submitted	HV side charged, LV side by Mar'19	LV side separate application to be submitted
5	220/132 kV, 160MVA ICT-II at Balipara	ICT damaged in transit. To be reviewed	To be submitted to NERLDC.	ICT damaged in transit. Uncertain.	To be submitted to NERLDC.
6	220/132 kV, 1x160 MVA ICT with GIS Bay at Kopili	Dec'18	To be submitted to NERLDC.	March 2019 (Delay in Supply)	To be submitted to NERLDC.
7	33kV bay at 220kV Mariani(AS) S/Sn	Demand note for CT PT unit pending from Assam. To be expedited by APDCL. Latest status to be submitted ASAP.	Not applicable.	APDCL has submitted estimate. Payment expected by Dec'19	Not applicable.
8	33kV bay for 132kV Badarpur(PG) S/Sn	To be expedited by APDCL. Latest status to be submitted ASAP.	Not applicable.	To be expedited by APDCL. Latest status to be submitted ASAP.	Not applicable.

9	By Nov'18	Not applicable.	SLDC Meghalaya to co-ordinate.	Not applicable.	By Nov'18
10	Replacement of 2x315 MVA ICTs with 2x500 MVA ICTs at Misa (PG)	ICT-I : Jan'19 ICT-II : Mar'19 Delay due to Tertiary re-arrangement	To be submitted to NERLDC.	ICT-I : May'19 ICT-II: Jun'19 Tertiary re-arrangement approved in 1st NERSCT.	To be submitted to NERLDC.
b. Elements under breakdown/upgradation					
11	Up-gradation of 132 kV Lumshnong-Panchgram line	Could not be updated due to absence of MePTCL representative.	Not applicable.	Queries/ revised study to be submitted by SLDC.	Not applicable.
12	Switchable line Reactors at 400 kV Balipara & Bongaigoan Ckt # 1 & 2	Completed except Bong#2 LR of Balipara which is under restoration. By 20.11.2018.	Not applicable	Reactors charged. CSD tuning to be done. By Dec'18	Not applicable
13	PLCC Panels at Loktak end of Loktak - Ningthoukhong 132 kV feeder and Loktak - Rengpang 132 kV feeder	Dec'18	Not applicable.	PLCC panels at Rengpang & Ningthoukong end completed. Loktak end by Dec'18	Not applicable.
14	Upgradation of 132 kV Silchar-Imphal to 400 kV	To be kept on hold till restoration of 132 kV Dimapur-Imphal line	To be submitted to NERLDC	One circuit upgradation by Dec'18.	To be submitted to NERLDC
15	Replacement of CTs and installation of Bus Bar Protection at 220 kV Misa	By Dec'18	Not applicable	<ul style="list-style-type: none"> • CT Replaced • Relay Replacement by January 2019 	Not applicable
16	Upgradation of 132 kV Bus Bar at Umiam Stg-III to ACSR Zebra	MePGCL to send proposal to NLDC/NPC.	Not applicable	MePGCL to send proposal to NLDC/NPC.	Not applicable
17	Integration of existing bays with C264 RTU at RHEP by NEEPCO	By Jan'19	Not applicable	By Jan'19	Not applicable

18	220/132 kV 30 MVA ICT at Mokokchung	-	-	Mar'19(LOA date)	To be submitted to NERLDC
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Deliberation of the sub-Committee:

NERLDC requested the forum that for SCADA data & voice integration, the utilities have to inform NERLDC at least six months ahead and before charging of any new element, they have to apply as per approved format atleast 10 working days ahead.

The Sub-Committee noted as above.

Action: All state utilities/central utilities/NERPC.

D. NEW ITEMS

D.1 Generation Planning (ongoing and planned outages)

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

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

Plants	Reservoirs level in meter as on 31-10-18	MU content	Present DC (in MU)	No of days as per current generation
Khandong + Kopili stg II	716.65	19.58	0.162	89
Kopili	604.75	140.62	1.104	127
Doyang	313.80	11.8	0.184	64
Loktak	768.00	115	1.097	105

Thus, for maintaining the generation availability of NER Region it is requested to all hydro generations to judiciously plan the utilization of water and furnish the day ahead declared MU such that NER Region does not face lack of generation availability in the upcoming lean hydro season.

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

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

D.2 Outage Planning Transmission elements

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

Furnishing request of shut down of the element, which was approved by NERPC, by Indenting Agency (ISTS licensees/STUs/Generating Companies) to NERLDC:

Planned shutdown approved by NERPC shall be considered for implementation by NERLDC on D-3 basis. If an outage is to be availed on say 10th of the month, the shutdown availing agency would reconfirm to NERLDC on 7th of the month by 10:00 Hr. This practice is necessary to ensure optimal capacity utilization and the time required for associated system study/coordination by/amongst RLDC/NLDC.

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

In 142nd OCCM, Director (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 forum further decided that the modalities of communication related shutdown should be finalized. Members requested NERPC to invite POWERGRID telecom in next OCCM alongwith with officials (handling communication issues) from all utilities for this purpose.

Deliberation in the Meeting:

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 availed on D-3 basis	Total S/D not applied on D-3 basis

139	105	34	111	28
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NERLDC highlighted that the inordinate delay in revival of elements under S/D for ISTS licensees is coming very high which is affecting the secure operation of the grid.

Details for the month of November, 2018 are as below:

Transmission Licensee	Total Delay	Avg. Delay	Max. Delay
POWERGRID	-	08: 45	-
NETC	50 Mins	16:40	50 Mins (400 kV Bongaigaon- Byrnihat line)
ENICL	-	-	-

Regarding shutdown for 132 kV Silchar-Imphal D/C, the forum noted the following:-

- Upgradation of 132 kV Silchar-Imphal D/C is a priority work in the interest of the region.
- 132 kV Silchar - Imphal Ckt#II is to be upgraded at first to 400 kV.
- Daytime Shutdown of 132 kV Silchar - Imphal Ckt#I is accorded on 15.12.18,16.12.18 and 20.12.18 for Shifting of line to ERS and crossing of Ckt 2 under NERSS-IV project at Silchar and Imphal Substation.
- Continuous shutdown of 132 kV Silchar - Imphal Ckt#II is accorded from 18.12.18 to 21.12.18 for shifting of the 132 kV line to 400 kV swichyard for charging the line at 400 kV level under NERSS-IV project at Silchar and Imphal Substation.
- Before commencement of continuous shutdown of 132 kV Silchar-Imphal – II line, 132 kV Dimapur-Imphal line is to be restored by routing 132 kV Dimapur-Kohima to Imphal. Copy of charging clearance of 132 kV Dimapur – Imphal line with new configuration from RIO of CEA will be submitted before availing the shutdown.
- NERLDC highlighted that the shutdown would be allowed subject to issuance of Charging clearance from NERLDC.

DoP Nagaland and MSPCL consented to the above shutdown(s)/arrangements for upgradation of 132 kV Silchar-Imphal Ckt#II.

The sub-Committee discussed and approved the proposals received from the constituents regarding transmission elements and generating units for December, 2018-January, 2018 and the same has already been uploaded in website of NERPC.

D.3 Estimated Transmission Availability Certificate (TAC) for the month of August, 2018 to October, 2018:

NETC and POWERGRID have submitted the outage data for the month of August 2018 - October, 2018. So the attributability of outage of the said elements may please be finalized.

NERTS has informed that in order to process the monthly energy billing in time, it is desirable that within 30(thirty) days availability certificate is issued. It is to be deliberated how to issue the availability certificate within 30(thirty) days.

Deliberation in the Meeting:

NERLDC and NERPC affirmed that the TAC is being done well within thirty days for all ISTS elements. NERLDC also informed that some delay is due to non-submission of DR/EL in time by Transmission Licensees. NERLDC have informed that they have constraint to verify outage of transmission elements in case of not fulfilling of criteria of Procedures for verification of Transmission Availability Certificate.

The Sub-Committee noted as above.

Action: Concerned transmission utilities/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 01.10.18. All SLDCs are requested to assess the Total Transfer Capability (TTC), Transmission Reliability Margin (TRM) and Available Transfer Capability (ATC) for the month of November'18 using these cases and submit the study cases and results to NERLDC by 22.10.18.

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 the TTC of their control areas as computed by NERLDC and give comments, if any, by 22.10.18.

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 122nd OCC meeting of NERPC, all SLDCs of NER may host the assessed TTC / ATC / TRM figures on their websites for information dissemination.

Deliberation in the meeting

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 January'19(considering N-1):

States	Off Peak	Peak
Arunachal	229	224
Assam	1480	1570
Manipur	217	224
Meghalaya	224	172
Mizoram	118	118
Nagaland	168	169
Tripura (including Bangladesh)	56	54

NERLDC requested that the ATC/TTC calculation shall have to be done on an hourly basis to cater to real time markets in the future. It was requested of all SLDCs to calculate ATC/TTC on an hourly basis. The forum after detailed deliberation that the same will be taken up for discussion after Mar'19.

NERLDC also informed the forum about PSS/E training to 2nd Batch of AEGCL w.e.f 17th Dec'18 to 20th Dec'18.

The Sub-Committee noted as above.

Action: All SLDCs/STUs.

D.5. Update on Real Time Energy Assessment for Effective Grid Management:

NERLDC has provided public IP of its server.

b) Following list of location for meters replacement / installation were submitted for the CDAC project:

Sl. No	Feeder's Name	Status	Meter to be replaced/Installed by PGCIL
1	Srikona End of 132kV Silchar FDR-1	Replace	1
2	Srikona End of 132kV Silchar FDR-2	Replace	1
3	Deomali End of 220kV Kathalhuri Fdr	Replace	1
4	PK Bari-I End of 132kV Silchar-1	Replace	1

5	PK Bari-I End of 132kV Silchar-2	Replace	1
6	Pavoi End of 132kV BNC-1	Replace	1
7	Mokok (S) End of Doyang	Replace	1
8	Mokok (S) End of Mokok-Mokok-1	Replace	1
9	Mokok (S) End of Mokok-Mokok-2	Replace	1
10	Khupi End of 132kV Balipara	Install	1
11	Lekhi End of 132kV Pare	Install	1
12	Khupi End of 132kV Kameng	Install	1
13	Zuangtui End of Melriat	Install	1
14	Luangmual End of Aizawl	Install	1

M/s CDAC has informed that pilot testing of Meter data acquisition of L&T Energy meters (2 No.) has been planned during 12th – 16th Nov 2018. The location identified for Pilot Testing is 400kV Azara Grid Sub-station, Assam

No. Of meters: 2 No.

AZARA END OF 400KV SILCHAR FDR

AZARA END OF 400KV BONGAIGAON FDR

In 150th OCC meeting DGM(MO), NERLDC informed that under pilot project, one TARA device has been installed at Azara S/S on 12.11.2018 with the SEM of Silchar feeder. DGM(MO), NERLDC, AGM-Assam SLDC, Manager(MO)-NERLDC and CDAC representatives were present during the process.

M/s CDAC is in the process of installing GUI at NERLDC server and after that continuous data receipt for two weeks would be tested. Subsequent to that, installation process in all NER locations would commence.

Regarding SIM for TARA devices, it was decided that NERPC would write to the nodal officers and respective department heads for procurement of SIM and handing over of the same to M/s CDAC at the earliest.

Deliberation in the meeting

M/s CDAC informed the following:

- SRS, SAT has been approved.
- Beta version of software REALver1.0 has been installed at NERLDC.
- 8 locations of Assam meter data is reporting including one proprietary L&T meter at Azara. Reporting interval is 15min.
- Last 35 days data is being stored.

- 8 hardware servers have been delivered and 120 TARA devices has also been delivered.
- 79 location TARA remaining to be installed. The schedule of completion against each control area/states was finalised with overall target being Jan'19.
- The cables required in the respective sub-stations for connecting meter to the TARA devices shall be provided by the concerned utilities.

The forum decided that the following shall be the nodal officer for installation of TARA devices and configuration of software at SLDC premises:

1. Sh. D. Kamduk, SLDC, DoP Ar. Pradesh
2. Smt L. Ritu, SLDC, MSPCL
3. Sh. D. Das, SLDC, AEGCL
4. Sh. A. Koch, SLDC, MeECL
5. Sh. B. Tlumtea, SLDC, DoP Mizoram
6. Sh. R. Iralu, SLDC, DoP Nagaland
7. Sh. M. Paul, SLDC, TSECL

The Sub-Committee noted as above.

Action: All utilities/NERPC.

D.6. Recording of operational instructions over VOIP in RLDC:

Status as updated in 149th OCCM: NERTS informed that LOA already placed. Supply by 1month. Details of LOA shared with NERLDC.

GM(AM), NERTS informed that the materials have been dispatched by party and are now in transit.

Deliberation in the meeting

GM(AM), NERTS informed that the device has been installed but switch problem remains. The same would be rectified by December, 2018.

The Sub-Committee noted as above.

Action: NERTS

D.7. 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.

Discussions as per previous meetings:-

- Inspection for Mawphlang completed.
- Inspection for Baghjap, Sankardevnagar and Sipajhar under Assam would be tentatively done in the first week of November, 2018.

Deliberation in the meeting

Director (O&P), NERPC informed for the Assam stations as above UFR inspection is envisaged to be done on 1st/2nd week of Jan'19. He requested the support of AEGCL, NERTS and NERLDC for the same.

The Sub-Committee noted as above.

Action: NERPC/NERTS/NERLDC/AEGCL.

D.8. VSAT for power system communications in NER:

As per discussion in 10th NETeST meeting it was decided that VSAT for remote station connectivity would be explored. NERTS was requested to prepare DPR and present in 147th OCC.

In 147th OCCM DGM(AM), NERTS informed that 2 Service Providers have been approached, however no quotation has been received till date. The forum noted that since the scheme deems sufficient financial involvement, RPC approval is required. NERTS suggested that a Committee may be formed for Comprehensive project. After detailed deliberation it was decided that since at present no list of stations are available which require VSAT communication, the stations of Roing, Tezu and Namsai would be given priority. NERTS was requested to prepare the DPR for VSAT communication i.r.o. above three station at the earliest.

In 148th OCC meeting, NERTS informed that they have received quotation from AIRTEL as per which financial implication will be around Rs. 60368800.00 in which recurring cost is Rs. 59944000.00 per annum. The recovery mechanism may be deliberated before placing the agenda to 19th TCC / NERPC Meeting.

Meanwhile POWERGRID is exploring High Bandwith Lease Line connectivity (MPLS from Airtel).

GM, NERLDC opined that VSAT option for entire NER should be explored in line with the scheme operational under KPTCL

In 149th OCCM DGM(AM), NERTS informed that Leased Line Connectivity has been explored for Roing, Tezu & Namsai with recurring expenditure amounting to INR 28 lakhs. DGM(SL), NERLDC through a presentation highlighted the VSAT scheme for NER whose main advantages are as follows:

- Direct communication link from Control Centre avoiding repeater stations and last mile problems.
- Reliable Communication System with more than 99.9% network uptime.
- Proven Technology.
- Quick to deploy remote stations. Typically a remote station can be added to the existing network within a week.
- With proper installation and link engineering the network can withstand adverse rain and wind conditions(Extn C Band Techlogy with Apdative Modulation).

The approximate financial involvement for the project considering 150 stations:

Capital Expenditure: INR 17 Cr

Operational Expenditure: Royalty: 61.85 lakhs, AMC: 1.13Cr Total: 2Cr(approx.)

DGM(SL), NERLDC opined that the OPGW network planned for NER does not encompass redundant connectivity for tail-end stations. The VSAT network would not only provide alternate path for all stations but would ensure reporting of data even in case of terrestrial exigencies.

MePTCL representative opined that since already so much emphasis has been given to OPGW connectivity for transmission of power sector data, the additional cost is not justified unless deemed to be of the utmost necessity.

Members from various utilities expressed apprehension regarding time delays in transmission of data and dependability of the system on weather conditions.

After detailed deliberation the forum decided that (subject to MePTCL concurrence):

- Pilot project to be executed at Byrnihat station. The data would be transmitted from Byrnihat to KPTCL(via satellite) to SRLDC to NLDC to NERLDC. This would be kept in monitoring mode in the interim.
- NERPC to take up with proper authorities for funding from suitable sources.

Director, NERPC informed that the matter was discussed at length in the 11th NETeST meeting and it was decided that a visit to KPTCL would be done on 10th December,

2018 with members from NERLDC, AEGCL and NEEPCO to assess the technical feasibility. Members requested that the financial aspect particularly the burden of recurring cost may be considered before any sort of involvement.

Deliberation in the meeting

Members of the group which visited Bangalore on 10.12.18 updated the forum of the technical aspects of the visit:

- Extended C Band Technology is being used by KPTCL. Same technology has to be replicated for NER.
- Minimum hardware is required at the remote stations and easy to install with only 3 units (modem, switch and antenna).
- Delay in receipt of data & voice is minimum and negligible.
- Voice communication is reliable and clear.

The team has confirmed that they are convinced about the performance of VSAT Communication Technology and that it is more suitable for NER Region.

The forum thanked the members for undertaking this visit and agreed to the implementation of Pilot Project. The forum requested the members for finalizing the modalities for implementation of pilot project. Members took cognizance of the view and referred the matter to the next NETeST meeting of NERPC for further discussion.

The Sub-Committee noted as above.

Action: NERTS/NERLDC/NERPC.

D.09. DIMAPUR_PG Voice communication and telemetry out since Feb'18.

In 148th OCCM DGM(AM), NERTS informed that Dimapur substation phone is working OK since March'18 (VOIP number 23640213). The same was restored along with power system restoration. Under urgency in March'18, NERTS had collected one telephone from SLDC end and same was later replenished. For data, he informed that the same would be corrected by Nov'18.

Deliberation in the meeting

NERTS informed that Dimapur voice communication has been restored and data would be restored by Feb'19.

The Sub-Committee noted as above.

Action: NERTS

D.10 Update on PDMS:

The following were decided as per deliberation in the previous meeting(s):-

- All utilities to inform the name and details of SPOC (Single Point of Contact).
- Assam would be the Pilot state.
- M/s PRDC would organise a training program on PSCT tentatively on the first week of December, 2018. AEGC/ APDCL would host the same.

Further M/s PRDC has informed that for Operational Load Flow Study to be conducted by them selection of time ahead date and time stamp is required alongwith the following data:

- MW and MVAR flows for all station incomers and outgoing lines, transformers, reactors, cap banks and load points till 132 kV or 66kV. SCADA snapshot for that particular time stamp from NERLDC and state wise SLDCs.
- Voltage at all buses or nodes.
- Transformer tap positions.

Deliberation in the meeting

PRDC representative informed the following status:

- Data has been collected from 30 locations of Assam.
- For 12 out of 30 locations relay setting has been obtained.
- Network modelling in PSCT has been initiated.
- Server is to be installed. In the interim data would be backed in PC based Server.
- Operational load flow date may be fixed.

After detailed deliberation it was decided that the date for operational load flow would be 19.12.2018(at 19:00 hrs). The forum requested all the utilities to submit the following data:

- MW and MVAR flows for all station incomers and outgoing lines, transformers, reactors, cap banks and load points till 132 kV or 66 kV. SCADA snapshot for that particular time stamp from NERLDC and state wise SLDCs.
- Voltage at all buses or nodes.
- Transformer tap positions.

It was decided that PRDC along with the help of NERPC & NERLDC would circulate formats to the respective utilities by 17.12.18.

The Sub-Committee noted as above.

Action: All utilities.

D.11 Non Reporting of RTU at RHEP:

Decision as per deliberation(s) in previous meetings:

- The bays on S900 RTU at RHEP have to be transferred to the existing C264 RTUs for 132kV RHEP-Chimpu D/C. For this MFTs are to be procured by NEEPCO. This has to be accelerated.
- NEEPCO to extend data upto the nearest wideband location through PLCC. ABB would visit RHEP by 21.11.2018 and the work would be completed by Nov'18.
- Scheme for connecting RHEP via BNC has been proposed to NEEPCO by POWERGRID, NEEPCO may review and take up.

Deliberation in the meeting

NEEPCO informed the following status:

- Bays to be shifted on C264 by Dec'18
- Data to be extended upto nearest broadband i.e. BNC by Dec'18

The Sub-Committee noted as above.

Action: NEEPCO

D.12 Telemetry Availability Status at NERLDC from Constituents (as on 07-11-2018):

Sl. No.	Name of the Constituents	Total Analogue Data points	Total Digital Data points	Total Data Points	Analogue Data points Reporting	Digital Data Points Reporting	Total Reporting	Total Percentage of data Availability
1	Arunachal Pradesh	106	152	258	7	11	18	6.97%
2	Assam	1217	1731	2948	406	459	865	29.34%
3	Manipur	180	255	435	93	150	243	55.86%
4	Meghalaya	409	388	797	168	46	214	26.85%
5	Mizoram	71	50	121	9	7	16	13.22%
6	Nagaland	237	270	507	7	3	10	1.97%
7	Tripura	524	715	1239	161	139	300	24.21%
8	PGCIL	628	1082	1710	414	761	1175	68.71%
9	NEEPCO	202	286	488	138	155	293	60.04%
10	NTPC	31	49	80	23	49	66	90%
11	OTPC	42	85	127	42	85	127	100%
12	NHPC	18	29	47	17	27	44	93.61%
	NER	3647	5063	8710	1468	1865	3333	38.27%

Deliberation in the meeting

NERLDC highlighted about the present status of telemetry data in the region as on 7th Dec'18. Forum took cognizance of the low availability of data for most states and

referred the matter to the next Sub-group meeting of NETeST scheduled to be held in the first week of Jan'19. NERPC also informed that as discussed during Sub group meeting the point to point checking for POWERGRID, AEGCL & NEEPCO will be done on 1st week of Jan'18

TSECL informed that VoIP for 400kV SMNagar-Comilla Ckt#I is out of order. Presently communication is via SMNagar to SLDC Agartala. The forum requested NERTS to take urgent and necessary action in this regard.

The Sub-Committee noted as above.

Action: All utilities, NERPC.

D.13 Sudden change in DC of BgTPP and Kopili on 2nd November'18.

On 02-Nov-18, NERLDC have experienced huge difficulty in managing the over drawl of Assam/Tripura /NER during full day. The reason for the same is related to abrupt change in DC by BgTPP & Kopili.

In case of BgTPP, it has been observed that the day ahead DC declared during entitlement by BgTPP was 465 MW. However, in R1 they have suddenly reduced their DC to 232 MW which is half of their previous day DC. In such a situation it becomes difficult for the beneficiaries to manage their schedule as well as load pattern.

In case of Kopili, it has been observed that they have suddenly changed their DC due to non -revival of shutdown of Kopili Unit-4. As a result, 41 MW of deviation occurred in NER region which could have been controlled if the shutdown were planned properly.

In 150th OCC meeting, NEEPCO informed that on 02.11.2018 there was no change in DC from NEEPCO side. Further, he clarified that Unit#4 was under shutdown which was returned on 16:00hrs. However at 17:00hrs when it was tried to be synchronized rotor earth fault was detected. Accordingly DC for 03.11.2018 was modified by 23:00hours.

It was decided that the matter would be discussed in next OCC with detailed data.

Deliberation in the meeting:

NERLDC informed the forum that DC revision for Kopili was done on 02.11.18. NEEPCO informed that Kopili had done DC revision on 02.11.18 for 02.11.18 but not for 03.11.18. After detailed deliberation the forum decided to drop the agenda item.

The Sub-Committee noted as above.

D.14 Utilization Certificate for Deposit Work of Construction of 33kV Transmission Line and Associated Bay from 220kV Mariani S/S(ASEB) to 220kV New Mariani S/S of POWERGRID

An amount of Rs.100,34,749.00 was deposited to ASEB (vide DD N.o. 059528 Dated 04.08.2015 of Rs.7,81,032.00 + DD No. 914008 Dated 06.01.2014 for Rs.92,53,717.00 both Axis Bank) for the deposit work. As on date POWERGRID have received provisional utilization of Rs.59,34,884.00 as detailed below:

- i) Rs. 45, 47,620.00 from DGM, APDCL.
- ii) Rs.13, 87,264.00 from AGM, 22kV Gid S/S AEGCL.

Balance utilization to be Received: Rs.40,99,865.00

The above work has been completed long back, but final utilization certificate has not been issued till date inspite of repeated requests by POWERGRID. ASEB to resolve the issue at the earliest for issue of final utilization certificate.

In 150th OCCM APDCL was requested to issue the utilization certificate at the earliest.

Deliberation in the meeting:

GM(AM), NERTS informed that APDCL has submitted the utilization certificate but AEGCL has yet to submit. The forum requested AEGCL to expedite.

The Sub-Committee noted as above.

Action: AEGCL.

D.15 Delay in commissioning of 400/220kV ICT#2 and associated GIS bays at Bongaigaon and 220kV Line Bays at Salakati (for 220kV D/C Bongaigaon-Salakati-Line).

Continuous shut down for 400/220/33kV ICT#1 was availed w.e.f 16-11-18 for bay up-gradation work to GIS at 400kV Bongaigaon S/S. However due to development of defect in Circuit Breaker of GIS bay , the Transformer cannot be put into service through GIS bay as the Circuit Breaker(mechanism) taken back to the supplier works for repair/rectification. Hence, the ICT will be charged with original arrangement/configuration till readiness of GIS bay.

Deliberation in the meeting:

In the event of exigency, the forum consented to the commissioning of the ICT with original configuration. NERTS informed that the same would be completed by Mar'19.

The Sub-Committee noted as above.

Action: NERTS.

D.16 Submission of Load Forecast Data on (D-2)th day by constituents

Study of Optimization of Generation Despatch of ISGS of NER is being carried out by NERLDC on daily basis using GAMS (General Algebraic Modeling System). The study results have been found to be helpful for day-ahead scheduling.

In order to facilitate the study, the forecasted load data is required to be received at NERLDC on (D-2)th day, D being the day for which the study is being conducted. It is therefore, requested to send the load forecast data 2 days ahead instead of 1 day ahead that is being followed till date.

Deliberation in the meeting:

NERLDC informed the forum that Study of Optimization of Generation Despatch of ISGS of NER is being carried out by NERLDC on daily basis using GAMS. The study results have been found to be helpful for day-ahead scheduling. In order to facilitate the study, the forecasted load data is required to be received at NERLDC on (D-2)th day, D being the day for which the study is being conducted.

NERLDC informed that Arunachal Pradesh, Manipur, Meghalaya & Tripura are submitting the data. Assam, Nagaland & Mizoram was requested to send the data. After detailed deliberation, all SLDCs agreed to submit the load forecast data on D-2 basis.

The Sub-Committee noted as above.

Action: All SLDCs.

D.17 Review of SPS in NER:

Several new elements and units in southern part of NER have been commissioned in recent times. Considering the new network topology and change in load generation pattern in southern part of NER, there is a need to review all the SPS which are currently operational in NER. It is also to be noted that studies should take into account addition of generation of Tural and drawl of Bangladesh.

Low drawl of Bangladesh is also a concern. Such an event occurred on 23rd November'18 where 400 kV Silchar- Azara was under planned shutdown and the southern part of NER grid was connected through 400 kV Silchar- Byrnihat (336 MW), 132 kV Badarpur- Khliehriat (PG) (70 MW) and 132 kV Jiribam(PG)- Halflong(PG) (23 MW). 132 kV Dimapur(PG)- Imphal(PG) was under continuous shutdown. It has been observed that Bangladesh drawl was only 56 MW. In such case the southern part of

NER grid is not safe in case of tripping of 400 kV Silchar- Byrnihat even after SPS are under operation.

Immediate review all the SPS which are currently operational in NER is essential.

Deliberation in the meeting:

NERLDC informed that considering the new network topology and change in load generation pattern in southern part of NER, there is a need to review all the SPS which are currently operational in NER.

Director, NERPC informed that the matter would be discussed in detail in the Special Meeting for SPS to be held in Jan'19.

The Sub-Committee noted as above.

Action: NERPC.

D.18 CT ratio of Transmission lines and enhancement of loadability of lines in NER:

As deliberated in 125th 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. The status as per 143rd OCC Meeting held on 12th April'18 are as follows:

Name of the line	Ratio at either end current)		Ratio at either end (required)		No. Of CTs required		To be completed by
	Stn A	Stn B	Stn A	Stn B	Stn A	Stn B	
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 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
132kV Dimapur (PG) - Dimapur	600/1	1200/1	600/1	600/1		3 by DoP, Nagaland	July'18

Deliberation in the meeting:

The forum updated the latest status as follows:

Name of the line	CT Ratio at either end current)		CT Ratio at either end (required)		No. Of CTs required		To be completed by
	Stn A	Stn B	Stn A	Stn B	Stn A	Stn B	
132 kV Jiribam- Aizwal	400/1	400/1	600/1	600/1	3 by PGCIL	4 by PGCIL	Feb'19
132 kV Jiribam- Haflong	400/1	400/1	600/1	600/1	3 by PGCIL	4 by PGCIL	Feb'19
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	AEGCL- Under tender process.
132 kV D/C Doyang - Dimapur	300/1	600/1	600/1	600/1	3 by PGCIL & 6 by NEEPCO		PGCIL- Feb'19 NEEPCO tendering yet to be initiated

132 kV Khandong - Khliehriat- I	300/1	300/1	600/1	600/1	3 by NEEPCO	3 by PGCIL	PGCIL- Feb'19 NEEPCO- completed
132 kV Khandong - Kopili I & II	300/1	300/1	600/1	600/1			PGCIL- Feb'19 NEEPCO- done
132kV Dimapur (PG) - Dimapur	600/1	1200/1	600/1	600/1		3 by DoP, Nagaland	PGCIL- completed DoP Nagaland - Apr'19

The Sub-Committee noted as above.

Action: All utilities as above.

D.19. Preparedness for Fog season:

The tripping of generators especially thermal power stations due to problem in air filters have been observed during last winter season. With the onset of the winter season this year, there is also high chances of tripping of generators due to problem in air filters.

All the generators are requested to kindly do proper maintenance of air filters under operation and maintain enough spares so as to avoid any such event

Deliberation in the meeting:

NERLDC informed the forum that with the onset of the winter season this year, there is also high chances of tripping of generators due to problem in air filters. NERLDC requested all the generators to kindly do proper maintenance of air filters under operation and maintain enough spares so as to avoid any such event.

OTPC informed that as per preventive maintenance carried out the Air Filters are working within permissible limits. NEEPCO acquiesced to revert back with the status.

The Sub-Committee noted as above.

Action: NEEPCO.

D.20. Outage of elements at Ranganadi S/S without information/consent of NERLDC

400 kV Ranganadi – Biswanath Chariali I & II were under shutdown from 08:00 hrs to 16:00 hrs on 03.11.2018 as approved in the 149th OCC shutdown. But, the 400 kV

bus along with 02 nos 360 MVA ICT I & ICT II at Ranganadi S/S were put under outage without information/consent from NERLDC.

At around 16:15 Hrs, when request for closing code for 400 kV bus along with 02 nos 360 MVA ICT I & ICT II was received from Ranagnadi S/S, NERLDC came to know about the S/D of the said elements.

Removal of elements from Grid without information/consent of NERLDC can cause threat to the integrity and security of the Grid as well as threat to the security of the personnel working in the site. This type of availing opportunity shutdown without prior intimation/consent from NERLDC may be avoided.

Deliberation in the meeting:

NERLDC informed the forum about the incident on 3rd Nov'18. GM(AM), NERTS informed that all POWERGRID sites have been strictly instructed to inform NERLDC before taking any opportunity shutdown. The forum requested all the utilities to inform NERLDC before availing any opportunity shutdown.

The Sub-Committee noted as above.

Action: All utilities.

D.21. Availing Emergency Shutdown for the same equipment consecutively

Emergency Shutdown of 220 kV Misa - Kopili I line was availed on 09.11.18 w.e.f 18:03 to 19:11 Hrs for attending Hot spot on R-ph CT terminal at Misa end, again on 10.11.18 Emergency Shutdown has been availed for the same equipment (R-Ph CT at Misa end) from 13:34 Hrs for attending Oil leakage. The oil leakage could have been observed and attended on 09-11-2018 itself.

Repeated availing of Emergency Shutdown for the same element may be avoided considering security of the Grid.

Deliberation in the meeting:

NERLDC informed the forum about the incident on 9th Nov'18 and 10th Nov'18. GM(AM), NERTS informed that oil leakage was there due to improper tightening of CT studs, hence twice shutdown was taken. NERTS assured that such incident will be avoided in future.

The Sub-Committee noted as above.

D.22. Continuous over-drawal of Tripura after giving partial requisition from BgTPP.

On 09-11-2018, Tripura was continuously overdrawing around 25 MW to 41 MW from Grid since 00:15 Hrs, after surrendering power from BgTPP generation. NERLDC requested Tripura for withdrawn of partial from BGTTP and maintain their drawl as per their schedule. Also, at 06:24 Hrs, Zero-Crossing Violation message was given to Tripura. However, Tripura failed to come to their schedule.

Deliberation in the meeting:

NERLDC informed the forum on 09-11-2018, Tripura was continuously overdrawing around 25 MW to 41 MW from Grid since 00:15 Hrs, after surrendering power from BgTPP generation and told that even after repeated request and communication from NERLDC Tripura did not come to schedule or withdraw their partial requisition.

Sr. Manager, TSECL once again reiterated that Tripura has no requirement of BgTPP power as has been repeatedly communicated to MoP. After detailed deliberation it was decided that Tripura would comply with all NERLDC directives w.r.t. drawal/injection from the grid.

The Sub-Committee noted as above.

Action: TSECL

D.23. Near miss of blackout in NER Grid on 05-12-2018

Due to opening of isolator of Bus Reactor-2 at 400 kV Bongaigaon substation, all the 400 kV lines from Bongaigaon Substation tripped at 10:19 Hrs of 05-12-2018 and the 400 kV Bongaigaon S/S became dead subsequently causing tripping of the all the associated feeders from 400 kV Bongaigaon S/S. The NER Grid survived by virtue of its connectivity with all India grid through 220 kV Salakati S/S via 220 kV Salakati – Alipurduar D/C.

Bonagaigaon S/S being the only 400 kV link for the connectivity of NER Grid with the rest of Indian grid, blackout of the Bongaigaon S/S has caused blackout of the complete NER Grid several times in the past. Thus, the GD of 05-12-2018 was a near miss of blackout of NER Grid.

POWERGRID is requested to thoroughly analyze the root cause for automatic opening of isolator of Bus Reactor-2 and submit a detailed report on the event.

All necessary corrective action must be taken in order to avoid occurrence of any such events again which may cause blackout of Bongaigaon S/S.

Deliberation in the meeting:

Director, NERPC informed that a meeting for RCA and remedial actions was held in Shillong on 10.12.18 with participation of NERPC, NERLDC, AEGCL, NERTS, MePTCL, NEEPCO, ERLDC, NLDC, NRLDC, POWERGRID CC, POWERGRID ERTS II. The minutes of the meeting was accordingly circulated, and copy was also given to MoP.

The Sub-Committee noted as above.

D.24. Submission of the Annual Load Generation Balance Report (LGBR) for Peak as well as Off-peak scenarios and the Annual outage plan for 2019-20 by 31.12.18 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 in the meeting:

The forum requested all the utilities to submit the data by 24.12.2018.

The Sub-Committee noted as above.

Action: All utilities.

D.25. Procurement of additional 70 Laptops:

NERTS informed the status in 150th. OCC meeting as below:

The tender documents for the above is under preparation.

Expected Tendering: 20-11-2018.

OBD: 20-12-2018

LOA/NOA: 31.12.2018

Expected Completion: 31.01.2019

Forum re-iterated the need of Laptops at the earliest and requested NERTS to stick to the timeline.

Deliberation in the meeting:

NERTS informed the following status:

Laptops (without software) already received at delivery locations.

The following is the revised schedule for software supply/cum installation in Laptops:

Expected Tendering: 25-12-2018 (Software Licence)

OBD: 15-01-2019

LOA: 31.01.2019

Expected Completion: 28-02-2019

The Sub-Committee noted as above.

Action: All utilities.

D.26. Installation of new L&T SEMs in NER:

NHPC informed in 150th OCC meeting that for 132kV Loktak-Imphal-2, 132kV Loktak - Jiribam and 132kV Loktak-Rengpang at least 1-2 hrs shutdown is required to replace the SEMs. The forum advised NHPC to submit requisition separately.

Deliberation in the meeting:

NHPC informed that except 132 kV Loktak-Imphal-2 SEMs have been installed for all the feeders.

The Sub-Committee noted as above.

Action: All utilities.

D.27. Procurement of DCD:

NERTS informed the following in 150th OCC:

Placement of Award: 25.11.2018

Tentative Delivery: 31.12.2018

Deliberation in the meeting:

NERTS informed the following status:

LOA Placed on **12-12-2018**.

Delivery Schedule as per the LOA: **10-01-2019**

The Sub-Committee noted as above.

Action: All utilities.

D.28. Time drift in SEMs.

Time drift status may be updated by utilities.

Deliberation in the meeting:

CGM, SLDC, AEGCL informed that the time drift for Samaguri is very high at present (greater than 10mins) which needs to be corrected at the earliest.

The Sub-Committee noted as above.

Action: AEGCL, NERTS.

D.29 Replacement of SEMs.

SN	LOCATION	FEEDER NAME	STATUS
1	BNC	BNC END OF PAVOI-I	Meters already made available at site. Replacement by 15.10.18
2	BNC	BNC END OF PAVOI-II	
3	BNC	PAVOI END OF BNC-I	
4	BNC	33 KV BNC-1	
5	BNC	33 KV BNC-2	

Regarding sl no 1 to 5, it was decided that the ELSTER meters would be replaced by L&T meters.

Deliberation in the meeting:

NERTS informed that the above Elster meters are drift free. However as decided by forum replacement of the Elster Meter taken up. The progress is as follows:

- 1.0 33kV BNC #II ..Installation Completed on 12.12.2018
- 2.0 33kV BNC # I ...Installation by 13.12.2018
- 3.0 BNC End of Pavaoi#I ...Planned on 14.12.2018
- 4.0 BNC End of PavoI #II ...Planned on 15.12.2018
- 5.0 PavoI End of BNC # I ..Planned on 20.12.2018

The Sub-Committee noted as above.

Action: NERTS.

D.30 Utilization of Laptop for Metering

TSECL intimated that the problem of Laptop has been resolved and they would start sending data using Laptop.

Deliberation in the meeting:

TSECL informed that 79Tilla has been sending data periodically, however other stations are yet to send the data.

The Sub-Committee noted as above.

Action: TSECL

D.31 Non-receipt of SEM data:

SL.NO	LOCATION	FEEDER NAME
	ASSAM	
1	TINSHUKIA	TINSUKIA END OF 220KV KTG FDR-I
2	TINSHUKIA	TINSUKIA END OF 220KV KTG FDR-II
4	SONABIL	SONABIL END OF 220 KV BALIPARA-1 FDR
5	SONABIL	SONABIL END OF 132KV BALIPARA FDR
6	KAHILIPARA	KAHELIPARA END OF UMTRU-1 FDR
7	KAHILIPARA	KAHELIPARA END OF UMTRU-2 FDR
8	BTPS (AS)	220 BTPS(ASSAM) - NTPC LINE
9	UMRANGSOO	UMRANGSOO END OF 132 KV KHANDONG
10	UMRANGSOO	UMRANGSOO END OF 132 KV HAFONG
	ARUNACHAL PRADESH	
11	DEOMALI	DEOMALI END OF 220KV KATHALGURI FDR
	TRIPURA	
12	UDAIPUR	UDAIPUR END OF PALATANA
	NAGALAND	
13	KOHIMA	KOHIMA END DIMAPUR (PG)
14	KOHIMA	KOHIMA END OF KARONG
15	SANIS	SANIS END OF DOYANG
16	MOKUKCHANG	MOKUKCHANG END OF DOYANG
	MANIPUR	
17	RENGPANG	RENGPANG END OF LOKTAK
	MIZORAM	
18	Kolasib	Kolasib end of both Badarpur / Aizawl

WEEKLY SEM data from above locations not sent to NERLDC.

Status as informed by various utilities in 149th. OCC meeting:

SL.NO	LOCATION	FEEDER NAME	Status
	ASSAM		
1	TINSHUKIA	TINSUKIA END OF 220KV KTG FDR-I	Tinsukia visited on 09.10.18, DCD display problem
2	TINSHUKIA	TINSUKIA END OF 220KV KTG FDR-II	
4	SONABIL	SONABIL END OF 220 KV BALIPARA-1 FDR	DCD defective
5	SONABIL	SONABIL END OF 132KV BALIPARA FDR	
6	KAHILIPARA	KAHELIPARA END OF UMTRU-1 FDR	No display in DCD. Already intimate to NERLDC.
7	KAHILIPARA	KAHELIPARA END OF UMTRU-2 FDR	
8	BTPS (AS)	220 BTPS(ASSAM) - NTPC LINE	Old CMRI defective
9	UMRANGSOO	UMRANGSOO END OF 132 KV KHANDONG	CMRI not available. Also NERTS does not collect data from Umrangso
10	UMRANGSOO	UMRANGSOO END OF 132 KV HAFONG	
	ARUNACHAL PRADESH		
11	DEOMALI	DEOMALI END OF 220KV KATHALGURI FDR	DCD not available
	TRIPURA		
12	UDAIPUR	UDAIPUR END OF PALATANA	Software issue. After laptop is received.
	NAGALAND		
13	KOHIMA	KOHIMA END DIMAPUR (PG)	No representative
14	KOHIMA	KOHIMA END OF KARONG	
15	SANIS	SANIS END OF DOYANG	
16	MOKUKCHANG	MOKUKCHANG END OF DOYANG	
	MANIPUR		
17	RENGPANG	RENGPANG END OF LOKTAK	ICT put in service one week back. Start to SEND data after receipt of laptop

The Sub-Committee noted as above.

D.32 Error observed in Meter readings:

1. Panchgram end of 132 kV Badarpur feeder, Meter no. 6872 reading half of other end, meter 6872 data is suspect.
2. Imphal(PG) end of 132 kV Dimapur(PG) feeder, Meter no. 8669 reading erratic.

Deliberation in the meeting:

NERTS informed that respective sites have been advised to check and update the status. Status on this will be updated by 17-12-2018.

The Sub-Committee noted as above.

Action: NERTS, all respective utilities.

D.33 Deviation Settlement Mechanism(Fourth Amendment Regulations), 2018:

Kindly arrange Awareness cum discussion on "Deviation Settlement Mechanism and related matters (Fourth Amendment) Regulations, 2018" will become effective from 1st Jan 2019.

Deliberation in the meeting:

Director, NERPC informed that a workshop in this regard has been organized on 18.12.18 at SLDC Kahelipara. He requested all the utilities to attend.

The Sub-Committee noted as above.

D.34 Expediting construction of 132kV supply for Railway traction sub-station for railway electrification projects in various States:

MoP has directed NERPC to get the status from respective State regarding railway traction sub-station for ongoing electrification. (**Annexure – D.34**). It is seen that in NER the work being executed is only in the State of Assam (at new Bongaigoan, Sarbhog, Nalbari & Kamakhya)

Deliberation in the meeting:

AGM, AEGCL informed that the status i.r.o. Assam has been submitted.

The Sub-Committee noted as above.

ADDITIONAL AGENDA ITEMS FROM DoP AR.PRADESH

D.35 Problems in synchronisation of lines in Ar.Pradesh system:

SE(SO&PSC), DoP Ar. Pradesh informed that after shutdown/tripping of 132kV RHEP-Chimpu and 132kV Pare-Lekhi-Nirjuli synchronization problems are arising due to absence of check sync facility at Lekhi/Chimpu. He requested that:

- RHEP may please put in sync check facility at RHEP end for 132kV RHEP-Chimpu direct line.
- For 132kV Pare-Lekhi-Nirjuli sync may please be carried out at Nirjuli S/S instead of Lekhi for normalisation after shutdown.

NERTS confirmed that check sync is available at Nirjuli(PG). NEEPCO informed that check sync facility would be enabled by Dec'18.

NERLDC requested NEEPCO to do check sync facility for all the feeders from Ranganadi at the earliest.

The Sub-Committee noted as above.

Action: NEEPCO

Date & Venue of next OCC meeting

It is proposed to hold the 152nd OCC meeting of NERPC on second week of January 2019. However, the exact date and venue will be intimated in due course.

The meeting ended with thanks to the Chair.

Annexure-I

List of Participants in the 151st OCC Meeting held on 14th December, 2018

SN	Name & Designation	Organization	Contact No.
1.	Sh. N. Perme, SE (SO&PSC)	Ar. Pradesh	09436288643
2.	Sh. Sanjib Goswami, CGM	Assam	09864035245
3.	Sh. J.K. Baishya, CGM, SLDC	Assam	09435041494
4.	Sh. B.M. Saikia, CGM, APDCL	Assam	
5.	Sh. R. Choudhury, DGM (TRC)	Assam	09435143426
6.	Sh. K. Goswami, Consultant	Assam	09864025095
7.	Sh. K. Gogoi, DGM,SLDC	Assam	09435301799
8.	Sh. Dipesh Ch. Das, AGM (LDC)	Assam	09954110254
9.	Sh. Bimal Ch. Borah, AGM, SLDC	Assam	09475119248
10.	Sh. Arup Sarmah, DM (Comm)	Assam	09707854367
11.	Sh. Pintu Dekaju, AGM (T&C)	Assam	09401516024
12.	Sh. N. Pritam Singh, Deputy Manager	Manipur	08118929250
13.	Sh. Themcham Woleng, Manager	Manipur	08731000143
14.	Smt. P. Sun, EE, MOD, SLDC	Meghalaya	08787771648
15.	Sh. T. Gidon, EE, SLDC	Meghalaya	09774479956
16.	Sh. Alokesh Koch, AEE, SLDC	Meghalaya	08257060204
17.	Sh. Alvin Shullai, AEE,	Meghalaya	09436334458
	No Representative	Mizoram	-
18.	Sh. M. Kikon, EE (Trans), Mokochung	Nagaland	09436005616
19.	Sh. Lengminlal Singson, SDO (Trans)	Nagaland	09436831124
20.	Sh. D. Chakraborty, SDO (G)	Nagaland	07577950317
21.	Sh. Shuwatho Katiry, JE	Nagaland	07005584689
22.	Sh. Debabrata Paul, Sr. Manager	Tripura	09436500244
23.	Sh. Jyotirmay Dutta, DGM	Tripura	09436540963
24.	Sh. Anil Debbarma, DGM, SOD, SLDC	Tripura	09612589150
25.	Sh. Joypal Roy, Sr. Manager (E/M)	NEEPCO	09435577726
26.	Sh. T. Taji, Sr. Manager (KHEP)	NEEPCO	09436042053
27.	Sh. Ashim Kumar Sarmah, Dy. Mgr.	NEEPCO	09435078860
28.	Sh. Amaresh Mallick, GM	NERLDC	-
29.	Ms. Momai Dey, Sr. Engineer	NERLDC	09436302716

30.	Ms. Bornali Nath, Engineer	NERLDC	-
31.	Sh. Pranjal, Engineer	NERLDC	-
32.	Sh. Keshab Borah, Asst. Engineer	NERLDC	07399276312
33.	Sh. P. Kanungo, DGM	PGCIL	09436302823
34.	Sh. Deva Prasad Paul, Manager	PGCIL	09435382360
35.	Sh. Smurti Ranjan Das, Sr. Mgr. (Elect)	OTPC	09612400784
36.	Sh. Kangkan Paul, Dy. Manager	NTPC	09435029230
37.	Sh. Pulak Deka, Manager	NHPC	06900178739
38.	Sh. R.K. Senthil Kumar, JD	C-DAC	09845454110
39.	Sh. K. Jagan Mohan, PTO	C-DAC	09739109842
40.	Sh. Debabrata Paul, Sr. Engineer	PRDC	09903957283
41.	Sh. Hirak Jyoti Bhuyan	Taurus	09101177485
42.	Sh. Debashish Mekherjee	Taurus	09007649508
43.	Sh. Rajesh Asarjee	Taurus	09434835280
44.	Sh. P.K. Mishra, Member secretary	NERPC	09968380242
45.	Sh. B. Lyngkhoi, Director (O&P)	NERPC	09436163419
46.	Sh. S. Mukherjee, AD	NERPC	08794277306



उ.पू.क्षे ग्रिड प्रदर्शन

NER GRID PERFORMANCE

For Month: November 2018

NORTH EASTERN REGIONAL LOAD DESPATCH CENTRE

POSOCO, SHILLONG

Contents



Highlights

Frequency Profile

Voltage Profile & Issues

Cross Border Transaction

Generation Pattern

Inter Regional Exchange

Energy Availability of States

Maximum Demand Met

Drawl Pattern of States

Violation Messages

STOA Transactions

Water Level of reservoir

Contents



[Energy
Content of
HEPs](#)

[GD & GI
counts](#)

[Shutdown
Analysis](#)

[Inordinate
Delays of S/D](#)

[Telemetry
Status](#)

Highlights for the month of November 2018



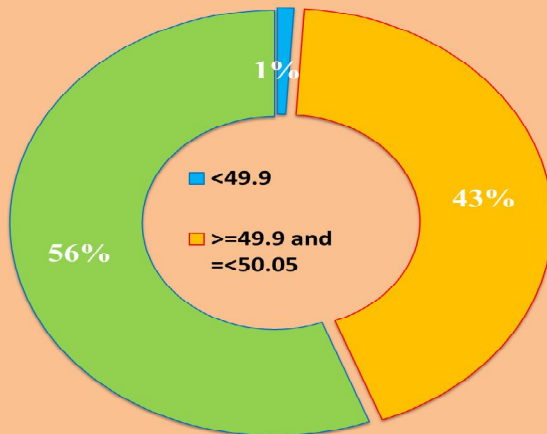
1. 400 kV Silchar- Melriat II line (charged at 132 kV) first time charged on 28.11.18 at 22:56 Hrs
2. 400 kV Silchar- Melriat I line (charged at 132 kV) first time charged on 28.11.18 at 23:36 Hrs
3. 245 kV, 31.5 MVAR Bus Reactor at Mokokchung (PG) first time charged on 29.11.2018 at 22:41 Hrs .
4. At 10:19 Hrs on 05.12.18, fault occurred in 400 kV Bongaigaon S/S resulting in bus dead condition of 400 kV Bongaigaon Bus, 400 kV Balipara Bus, 400 kV Biswanath Chariali Bus, 400 kV Ranganadi Bus and 400 kV Misa Bus. Khupi area & Capital area of Arunachal Pradesh and Sonabil area of Assam were affected as a result of black out resulting in about 140 MW load loss and also, causing a major treat to the reliability of NER Grid as major 400 kV Substations were blacked out.

[BACK](#)

Frequency Profile for the month of November'18:



% OF FREQUENCY WITHIN & OUT SIDE THE IEGC BAND



FDI for the month of November

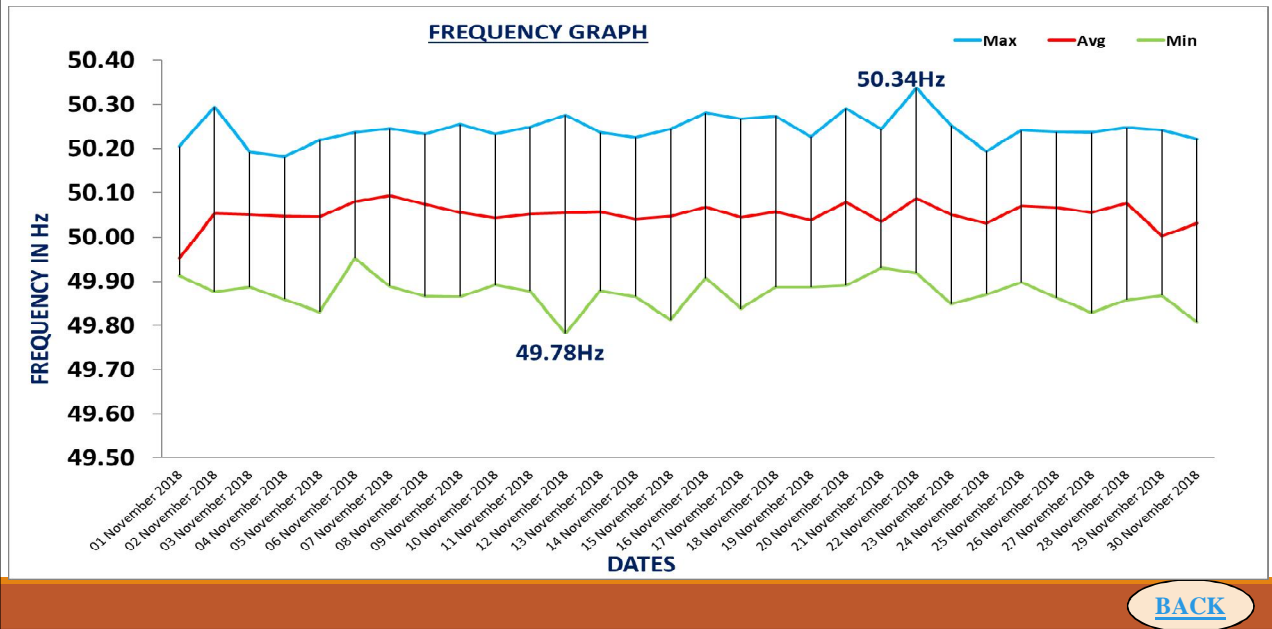
Sl No.	KPI	Nov'17	Nov'18
1	FDI	0.265	0.201

Frequency Violation Messages



Constituents	Frequency Violation Message		
	Alert	Emergency	Total
AP	10	0	10
Assam	37	0	37
Manipur	24	0	24
Meghalaya	16	0	16
Mizoram	6	0	6
Nagaland	18	0	18
Tripura	30	0	30
AGBPP	0	0	0
AGTCCPP	0	0	0
RHEP	0	0	0
KOPILI	1	0	1
KHANDONG	0	0	0
KOPILI-II	0	0	0
DHEP	0	0	0
LOKTAK	0	0	0
BgTPP	0	0	0
PALATANA	0	0	0
PARE	0	0	0

Daily Frequency Profile



Voltage Deviation Index (outside IEGC range) in %

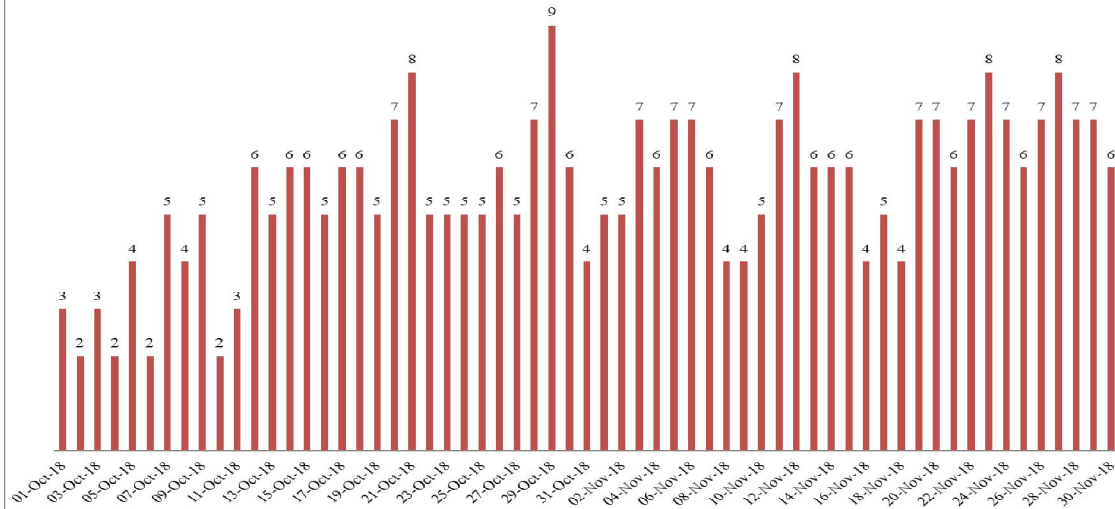


VDI for the month of November			
SI No.	Name of 400 kV Node	Nov'17	Nov'18
1	Azara (AEGCL)	0.000	0.000
2	Balipara (PG)	0.020	0.001
3	BgTTP (NTPC)	0.206	0.008
4	Biswanath Chariali (PG)	0.011	0.001
5	Bongaigaon (PG)	0.010	0.000
6	Byrnihat (MePTCL)	0.100	0.001
7	Misa (PG)	0.075	0.046
8	Palatana (OTPC)	0.172	0.000
9	Ranganadi (NEEPCO)	0.164	0.097
10	Silchar (PG)	0.000	0.000

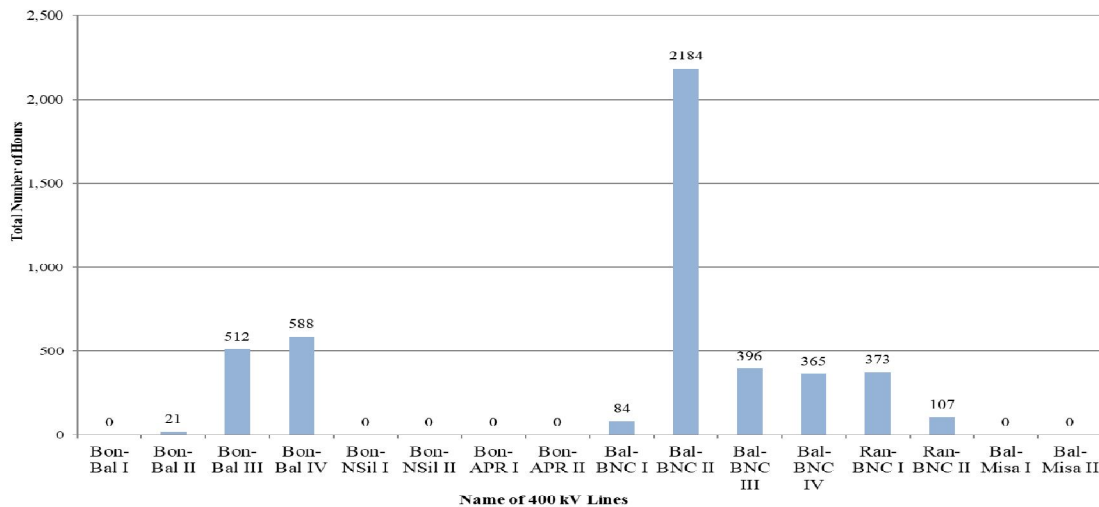


Number of 400 kV Lines opened on Overvoltage for Oct '18 - Nov'18

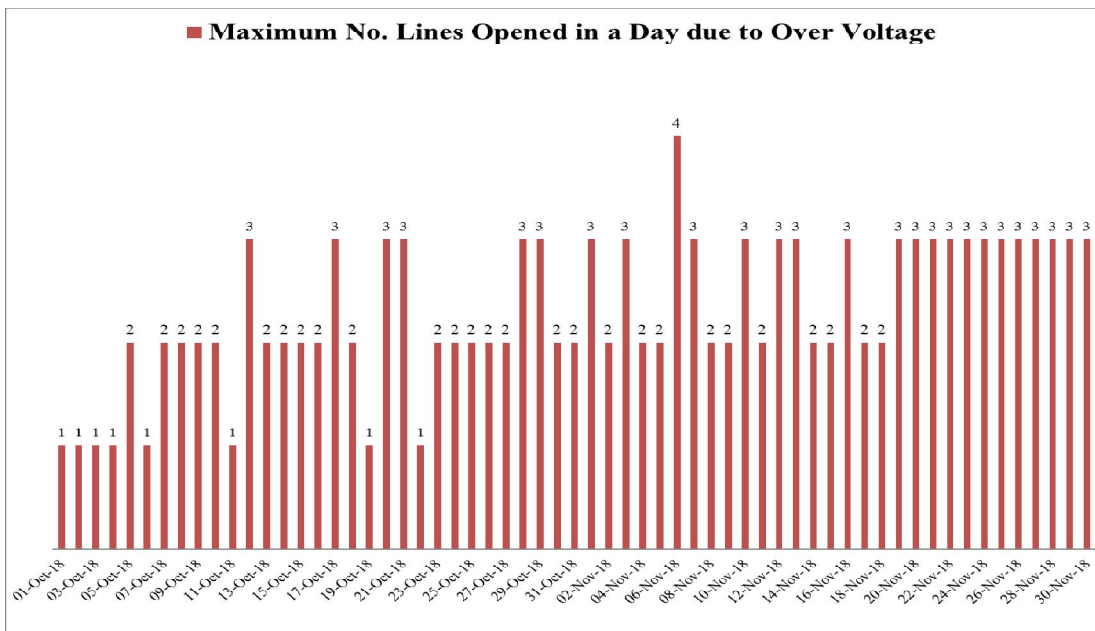
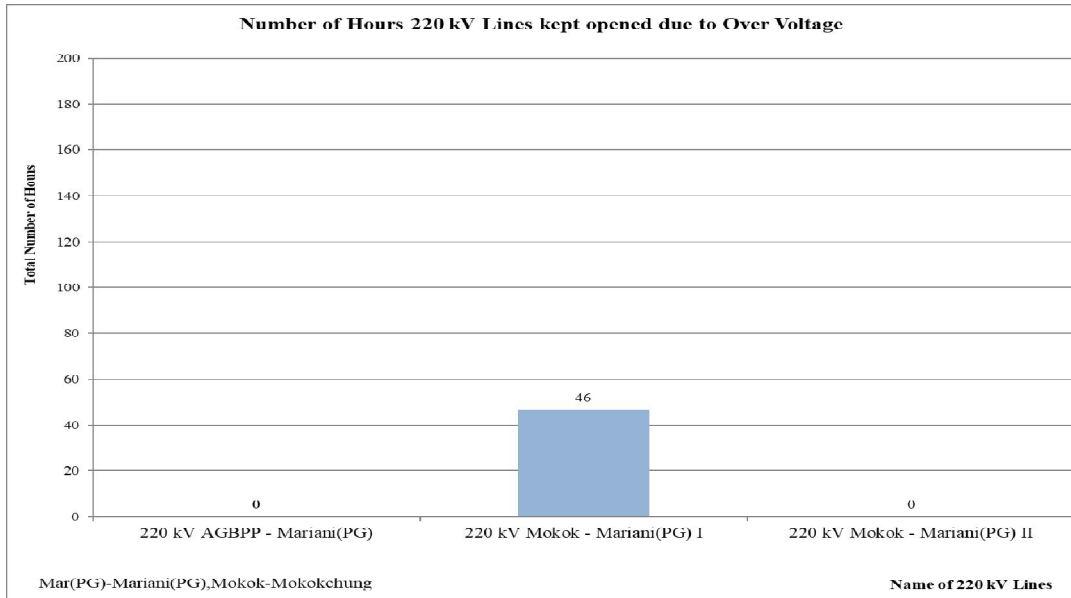
■ Number of 400 kV Lines opened on Overvoltage



Number of Hours 400 kV Lines kept opened due to Over Voltage during Oct'18 - Nov'18



Bon-Bongaigaon, Bal-Balipara, Ran-Ranganadi, BNC-Biswanath Charali, APR-Alipurduar, NSil- NewSilliguri



[BACK](#)

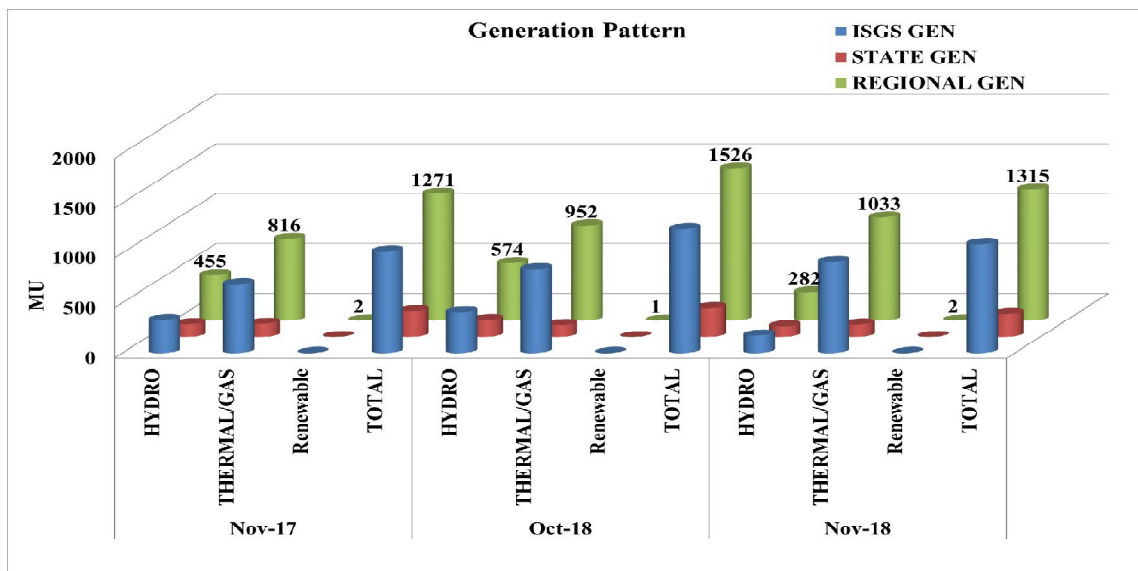
Cross Border Transactions (in MU)



Net Inter-Country Power Exchange(in MU)	
Import (+)/ Exp (-) by Bhutan	-16.160
Drawal by Bangladesh	67.74
Drawal by Myanmar	0.55

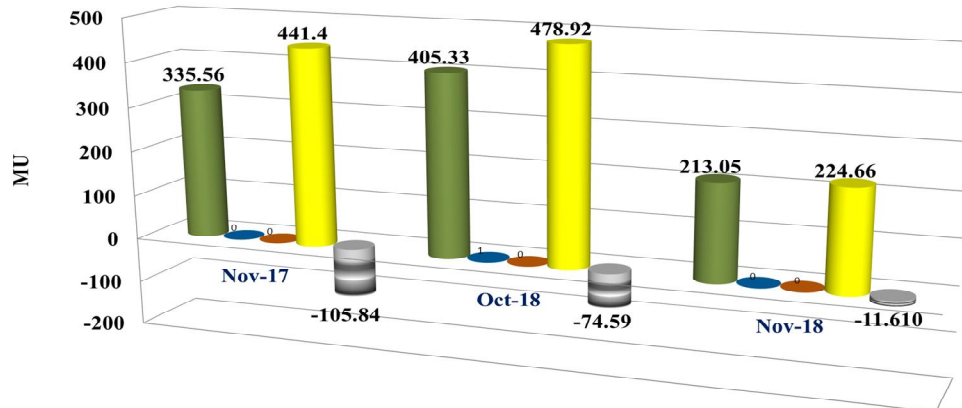
[BACK](#)

Comparison of Generation Pattern (MU)



[BACK](#)

Comparison of Inter – Regional Exchange in MU



	Nov-17	Oct-18	Nov-18
ER-NER	335.56	405.33	213.05
NER-ER	0	1	0
NR-NER	0	0	0
NER-NR	441.4	478.92	224.66
Net Import(+)/Export(-)	-105.84	-74.59	-11.610

SRI for the month of October



Sl No.		Nov'17	Nov'18
1	ER-NER Import TTC Violation	2.94%	0.00%
	NER-ER Export TTC Violation	0.00%	0.00%
2	ER-NER Import ATC Violation	3.78%	0.00%
	NER-ER Export ATC Violation	0.00%	0.00%
3	400 kV Bongaigaon wrt Balipara (Max angular diff between buses)	10.7	5.9
	400 kV Balipara wrt Misa (Max angular diff between buses)	7.1	2.1
	400 kV Binaguri wrt Bongaigaon (Max angular diff between buses)	9.1	7.4

[BACK](#)

Comparison of Energy Availability (in MU)



Constituents	Energy Met (MU)		Difference	% Difference	Energy Met (MU) per Day	
	Nov-17	Nov-18			Nov-17	Nov-18
Arunachal	69.09	39.29	-29.80	-43.13	2.30	1.31
Assam	696.69	481.26	-215.42	-30.92	23.22	16.04
Manipur	68.84	45.24	-23.60	-34.29	2.29	1.51
Meghalaya	135.42	127.81	-7.60	-5.61	4.51	4.26
Mizoram	39.53	42.24	2.71	6.86	1.32	1.41
Nagaland	58.70	34.91	-23.79	-40.53	1.96	1.16
Tripura (Excluding Bangladesh)	104.60	83.31	-21.28	-20.35	3.49	2.78
Region (Excluding Bangladesh)	1172.86	854.06	-318.80	-27.18	39.10	28.47

[BACK](#)

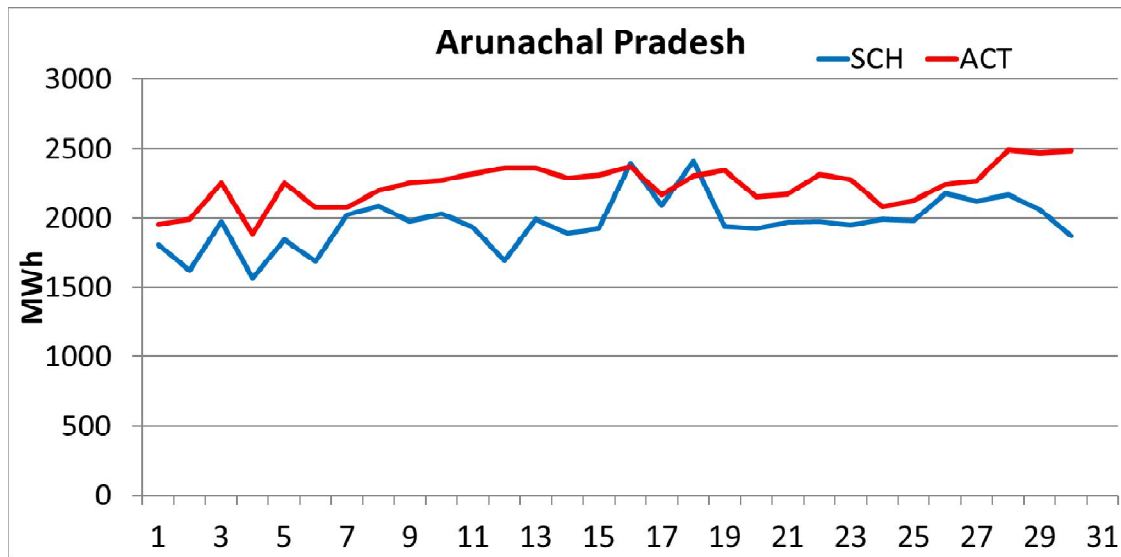
Maximum Demand Met of states for November'18



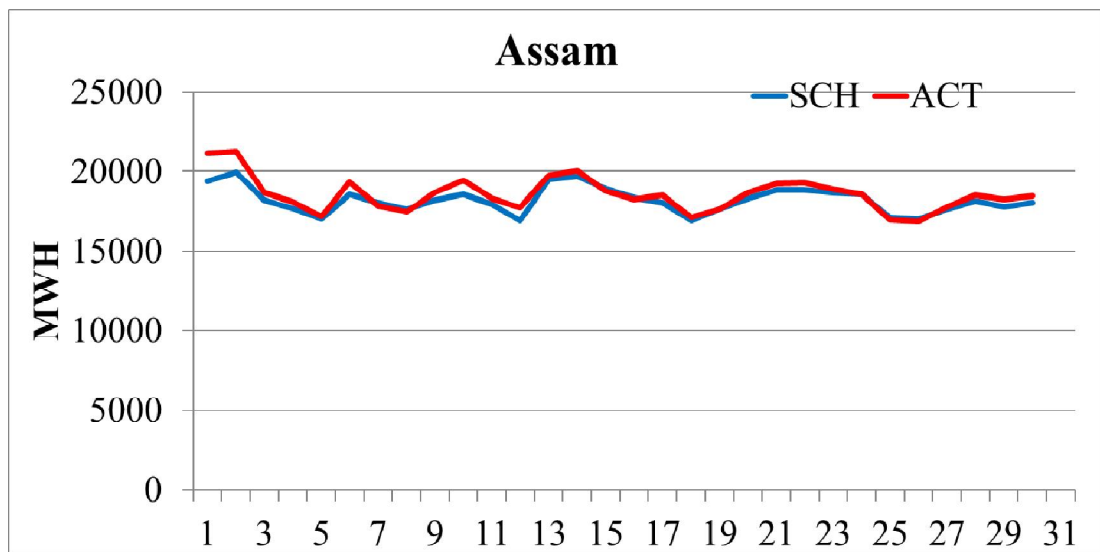
Name of Constituents	Maximum Demand Met (MW) in November'18	Maximum Demand Met (MW) in October'18	Maximum Demand Met (MW) in November'17
Ar Pradesh	128	125	136
Assam	1525	1704	1478
Manipur	189	185	178
Meghalaya	352	336	339
Mizoram	102	97	90
Nagaland	135	130	131
Tripura(Excluding Bangladesh)	258	269	240
Region(Excluding Bangladesh)	2620	2699.9	2536
Max Drawal by Bangladesh	154.5	174.7	156.3
Max Drawal by Myanmar	1.7	1.7	1.3

[BACK](#)

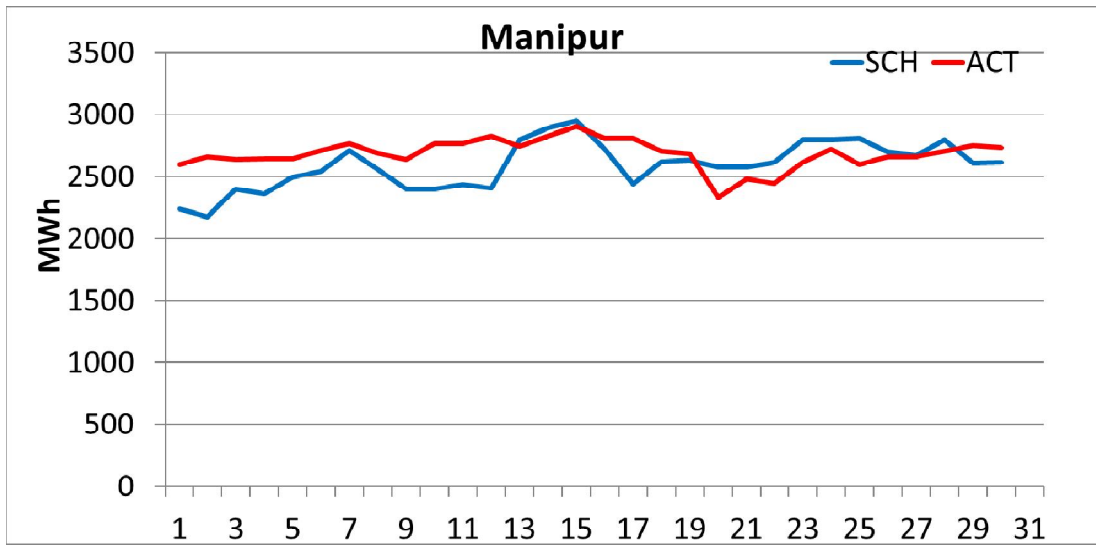
Actual drawl against Schedule in MWh



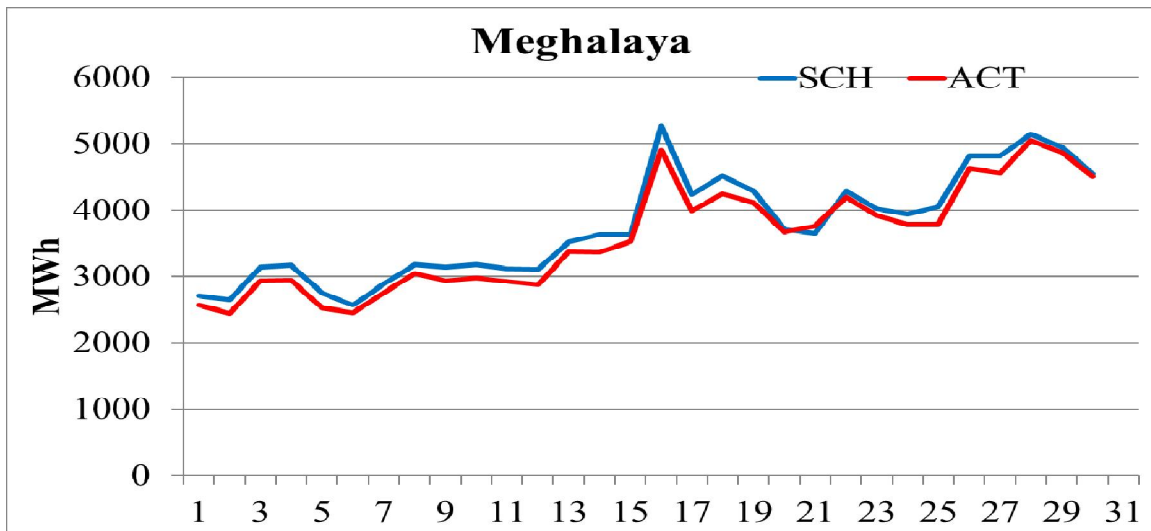
Actual drawl against Schedule in MWh



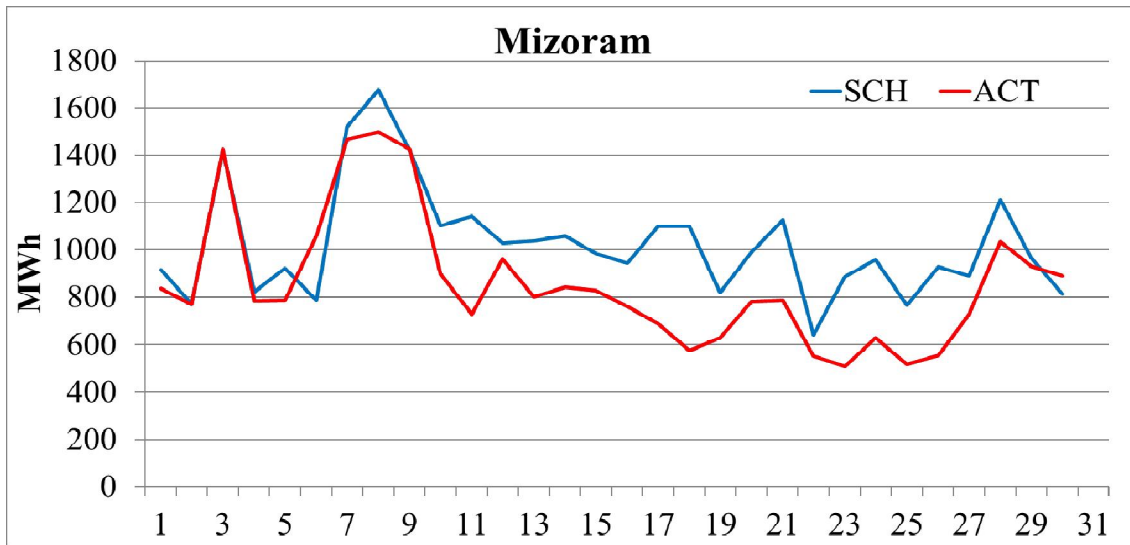
Actual drawl against Schedule in MWh



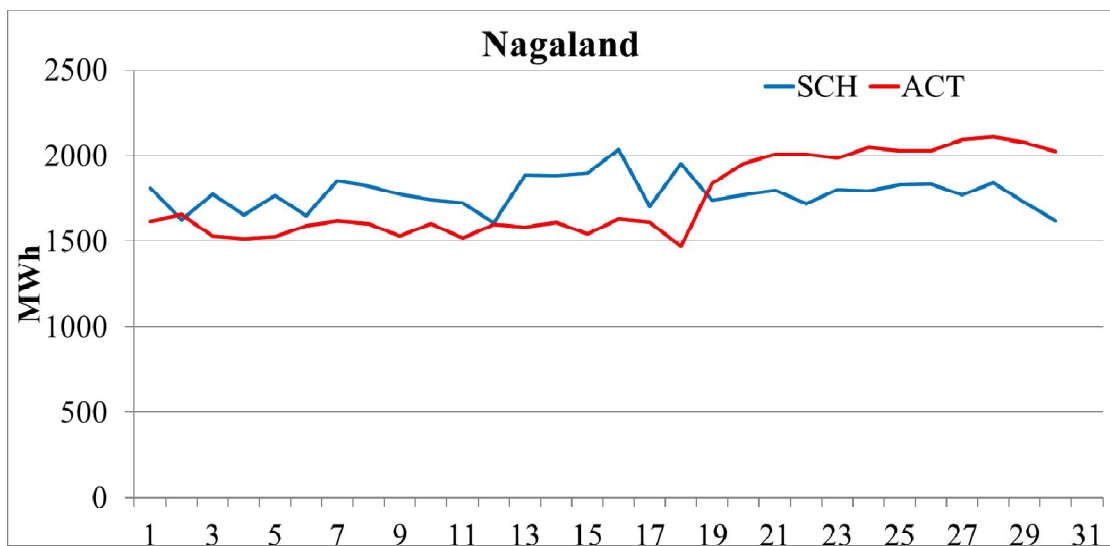
Actual drawl against Schedule in MWh



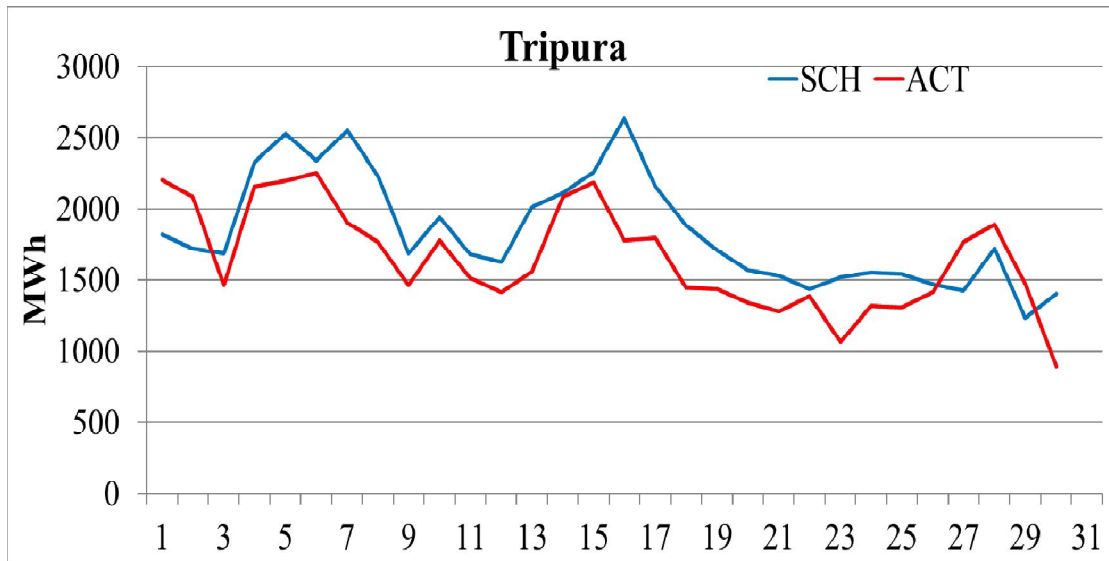
Actual drawl against Schedule in MWh



Actual drawl against Schedule in MWh



Actual drawl against Schedule in MWh



[BACK](#)

Violation Message Summary of November 2018

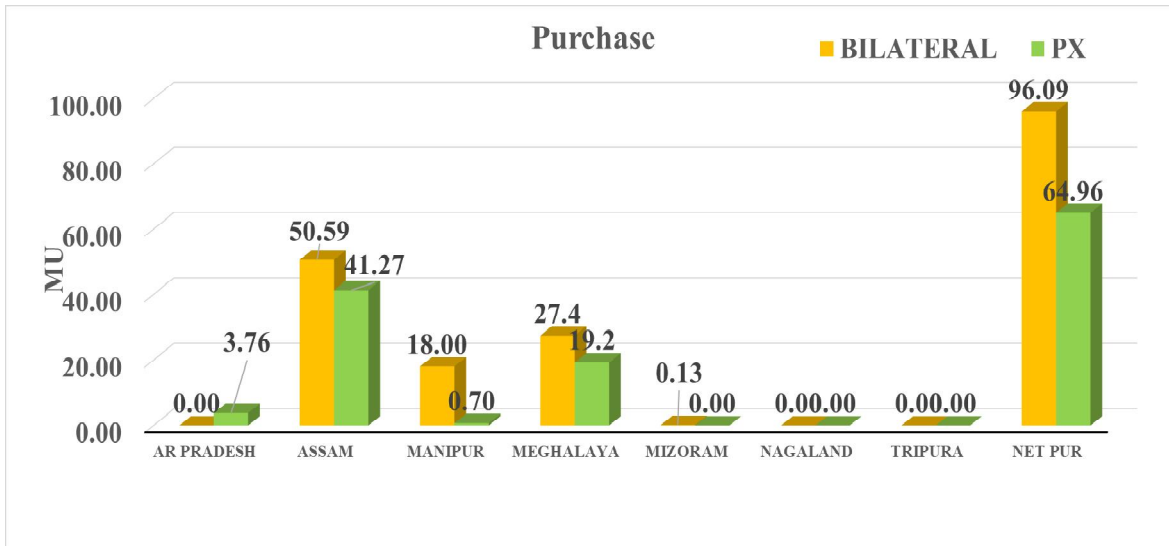


Constituents	Deviation Violation Message			Zero crossing Violation Message		
	Alert	Emergency	Total	Alert	Emergency	Total
AP	1	0	1	2	1	3
Assam	16	1	17	2	0	2
Manipur	0	0	0	1	1	2
Meghalaya	1	0	1	1	0	1
Mizoram	0	0	0	2	3	5
Nagaland	0	0	0	1	1	2
Tripura	4	0	4	4	6	10
AGBPP	0	0	0	0	0	0
AGTCCPP	0	0	0	0	0	0
RHEP	0	0	0	0	0	0
KOPILI	0	0	0	0	0	0
KHANDONG	0	0	0	0	0	0
KOPILI-II	0	0	0	0	0	0
DHEP	0	0	0	0	0	0
LOKTAK	0	0	0	0	0	0
BgTPP	0	0	0	0	0	0
PALATANA	0	0	0	0	0	0
PARE	0	0	0	0	0	0

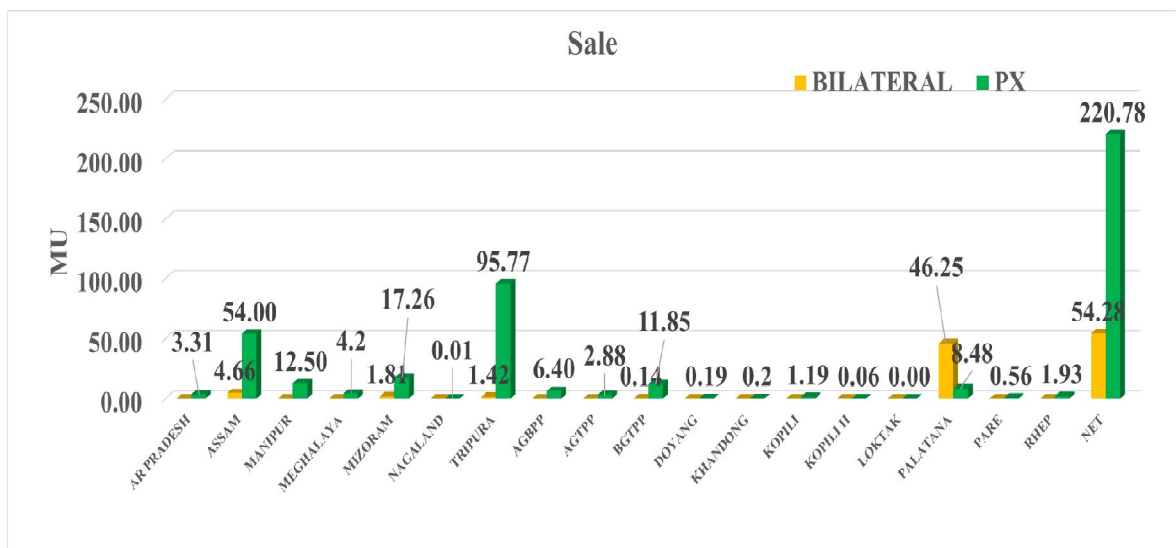
[BACK](#)



STOA Transactions by the States



STOA Transactions by the States

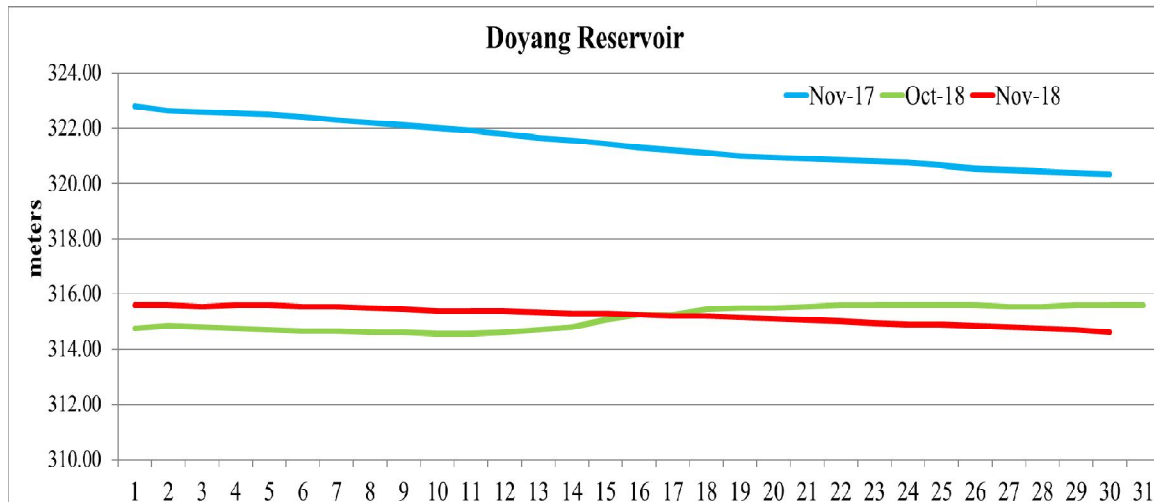


[BACK](#)



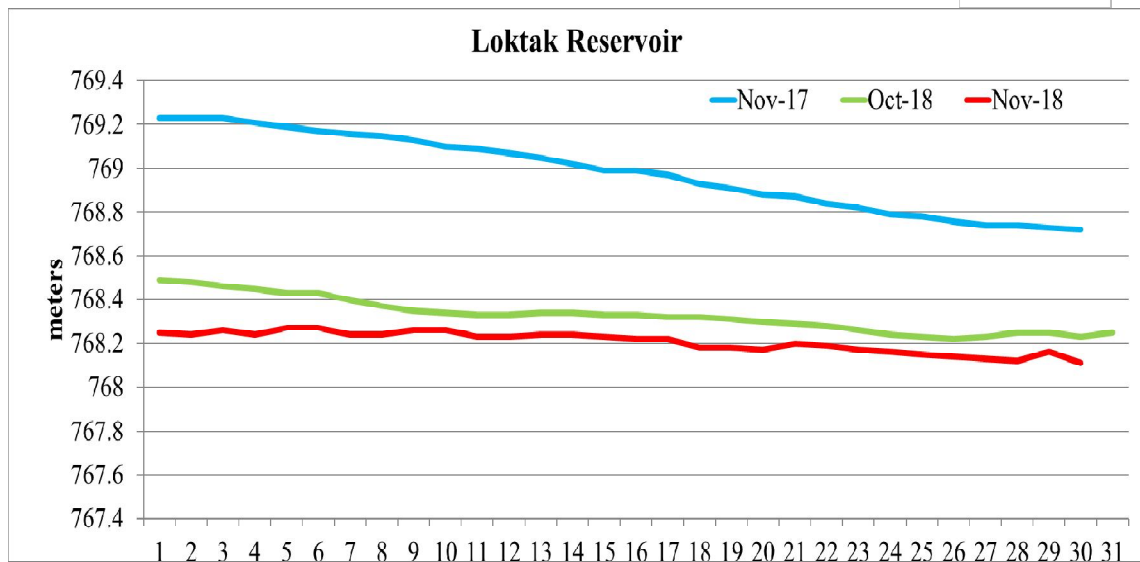
Water Level of Reservoirs in NER

MDDL= 306 Mtr
FRL= 333 Mtr

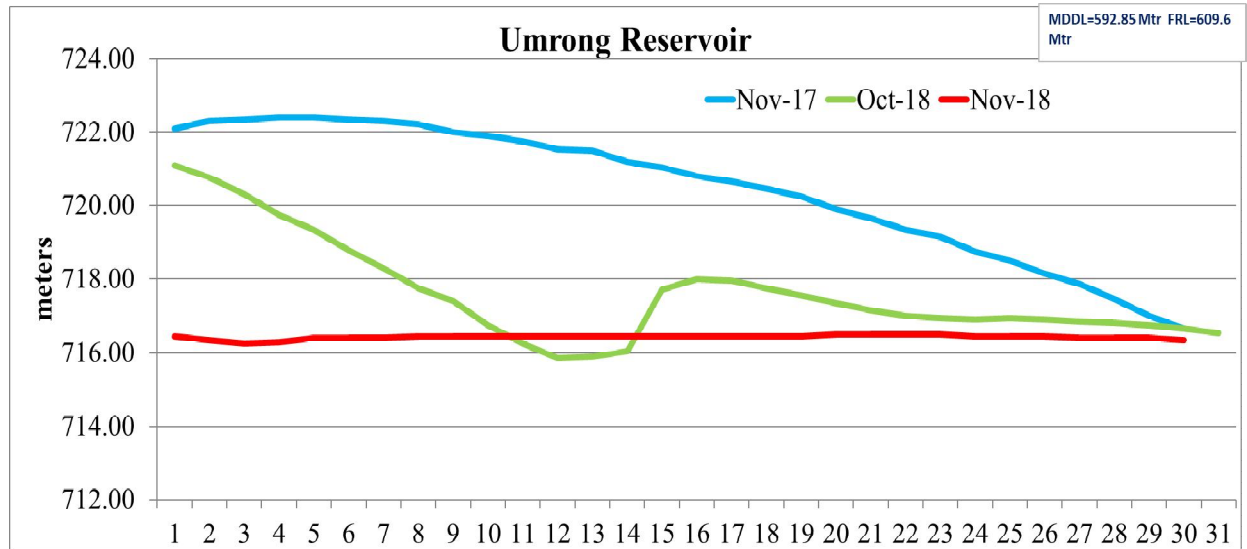


Water Level of Reservoirs in NER

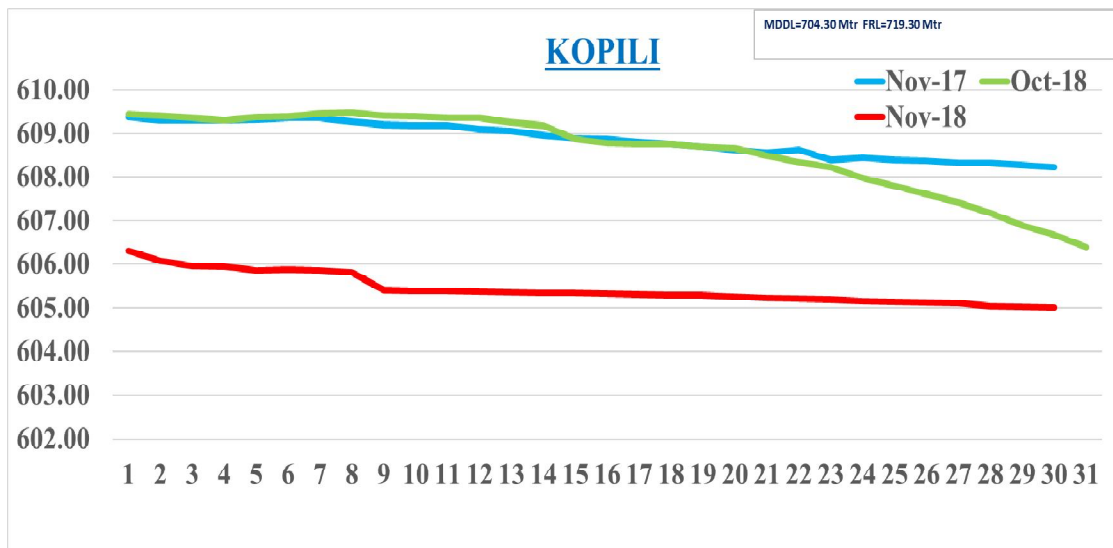
MDDL= 766.2 Mtr
FRL= 769 Mtr



Water Level of Reservoirs in NER



Water Level of Reservoirs in NER



[BACK](#)

Energy Content of Hydro Plants



Plants	Reservoir Level in meters (as on 12/11/18)	MU Content	Present DC (MU)	No of days as per current Generation
Khandong + Kopili STG II	716	19.58	.149+0.072	89
			0.221	
Kopili	604.75	(62.3+ 4x19.58)	1.104	127
		140.62		
Doyang	313.8	11.8	0.184	64
Loktak	768	115	1.097	105

[BACK](#)

Details of Grid Disturbance / Grid Incidents



GD & GI Count for November'18

Sl. No.	Category of GD	Total Counts
1	GI 1	5
2	GI 2	2
3	GD 1	8
4	GD 2	0
5	GD 3	0
6	GD 4	0
7	GD 5	0

[BACK](#)



Details of Shutdowns availed and not-availed

151th OCCM approved and w.e.f. 14.11.18 to 13.12.18

Total no. of SD approved	Nos. of SDs availed	Nos. of SDs not availed	Nos. of SD availed on D-3 basis	Nos. of SD not availed on D-3 basis
139	105	34	111	28

[BACK](#)

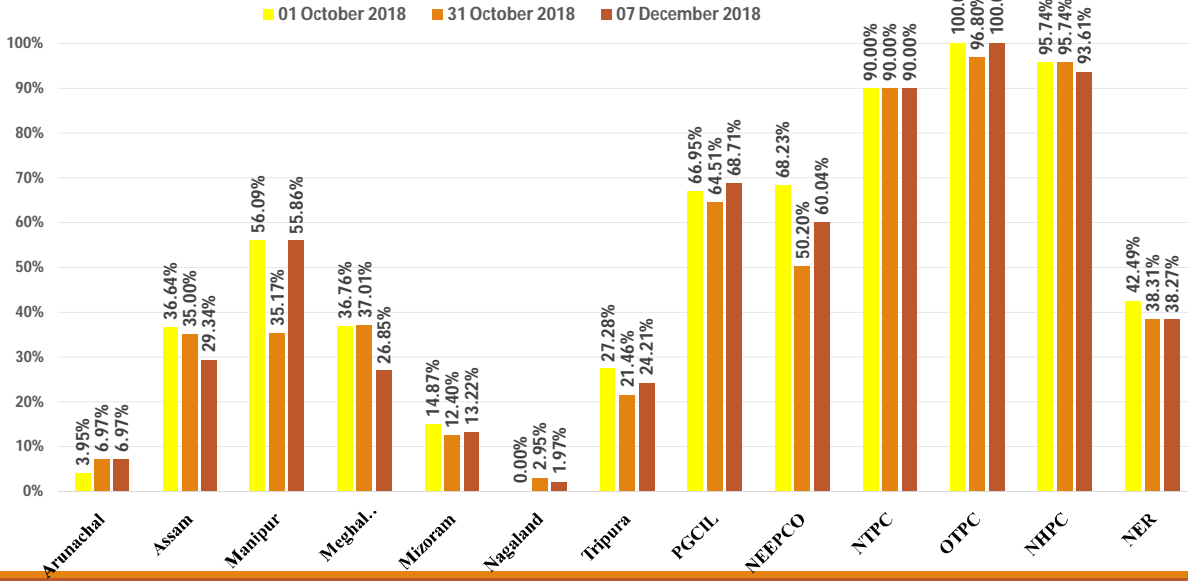


Inordinate delay for Shutdowns

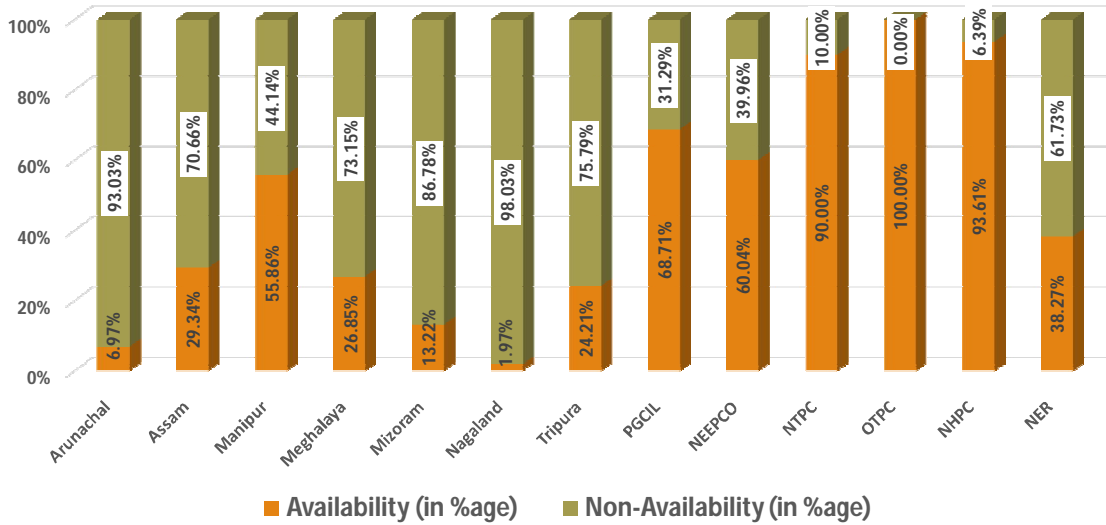
Transmission Licensee	Total Delay (in Hrs)	Avg. Delay (in Hrs)	Max. Delay (in Hrs)
POWERGRID	718 Hrs 46 Mins	8 Hrs 45 Mins	339 Hrs 31 Mins (132 kV Tezu – Namsai)
NETC	50 Mins	16 Mins 40 secs	50 Mins (400 kV Bongaigaon-Byrnihat)
ENICL	Nil	Nil	Nil

[BACK](#)

Comparison of Telemetry Availability Statistics



TELEMETRY STATISTICS (as on 07.12.18)



[BACK](#)

Thank You

Annexure

Summary of Transmission line work being executing by various State electricity board				
SN	STATE	Tr. Line work to be expedited (Annexure-I)	Contact yet to Award (Annexure-II)	Estimate awaited (Annexure-III)
1	Madhya Pradesh	13	4	4
2	Odisha	11	2	
3	Andhra Pradesh	5		
4	Karnataka	2	4	5
5	West Bengal	5	2	
6	Assam	1	4	
7	Uttar Pradesh	19	5	1
8	Haryana	5	2	
9	Punjab	1	2	2
10	Rajasthan	5	5	7
11	Bihar	6	11	1
12	Jharkhand	2	3	
13	Gujarat	2	7	4
14	Telangana	1		
15	Tamil Nadu	2	1	3
16	Jammu & Kashmir	1		
17	Maharashtra		7	
18	Chhattisgarh		1	
19	Damodar Valley Corporation Limited		5	
Total		81	65	27

works for which tender finalization to be expected

SN	Electrification Project/Agency	Name of Grid Sub Station	Name of Rly TSS	Tr. Line (kms)	STATE
1	Daund Manmand (RVNL)	Kopergaon	Kopergaon 2 nd feeder	2.95	MAHARASHTRA
2	Bhigwan-Solapur section of (Pune-Wadi-Guntakal) RVNL	Parewadi	Parewadi	5 km	MAHARASHTRA
3	Bhigwan-Solapur section of (Pune-Wadi-Guntakal) RVNL	LILO Kuruwadi-Jeur line	Kuruwadi	7 km	MAHARASHTRA
4	Bhigwan-Solapur section of (Pune-Wadi-Guntakal) RVNL	Mohol	Mohol	7.5 km	MAHARASHTRA
5	Solapur-Gulberga section of (Pune-Wadi-Guntakal) RVNL	Hotagi	Hotagi	6 km	MAHARASHTRA
6	Solapur-Gulberga section of (Pune-Wadi-Guntakal) RVNL	Godgaon	Godgaon		KARNATAKA
7	CHHINDWARA-KALUMNA (RVNL)	LILO	Patansaongi	3.6	MAHARASHTRA
8	Daund-Baramati (RVNL)	Shirsufal	Shirsai	5 km.	MAHARASHTRA
9	Rattam-Nimach (CORE)	Nimach	Nimach	11	MADHYA PRADESH
10	RAIPUR-TITLAGARH (RVNL)	Paraswani	Mahasamund	11	CHHATTISGARH
11	Hardaspur-Paradeep (RVNL)	Paradeep	SIJU	5.000	ODISHA
12	Singapur Road-Damanjodi (CORE)	Lakshmiapur	Lakshmiapur	2.5	ODISHA
61	HOSPET-BATTERY-GUNTAKAL (RVNL)	Alipura	Beilary cant	3	KARNATAKA
13	Kengeri - Mysore (CORE)	Tubalkare	Yeilyur	6	KARNATAKA
14	Kengeri - Mysore (CORE)	Hootabaly	Mysore	7	KARNATAKA
15	Calicut-Mangalore (CORE)	Mangalore	Jakotte	5	KARNATAKA
16	Pakur-Malda (CORE)	Malda	Khaltipur	23	WEST BENGAL
17	Katwa-Azimganj (CORE)	Gokarna	Kharghat	16	WEST BENGAL
18	NEW BONGAIGAON-GUWAHATI (RVNL)		New Bongaigaon	10 Km	ASSAM
19	NEW BONGAIGAON-GUWAHATI (RVNL)		Sarbhog	2 Km	ASSAM
20	NEW BONGAIGAON-GUWAHATI (RVNL)		Nalbari	5 Km	ASSAM
21	NEW BONGAIGAON-GUWAHATI (RVNL)		Kamakhya	5 Km	ASSAM
22	Bhandai-Udi (CORE)	Bah	Bah	24.8	UTTAR PRADESH
23	Bhandai-Udi (CORE)	Bah	Fathabad	20.6	UTTAR PRADESH
24	Unnao-Unchahar (CORE)	Sarani	Raghuraj singh	12	UTTAR PRADESH