North Eastern Regional Power Committee

AGENDA FOR 46TH PROTECTION COORDINATION SUB-COMMITTEE MEETING OF NERPC

Date of Meeting : **07/04/2017 (Friday)**

Time of Meeting : **10:30 hrs**

Venue : **"Hotel Nandan", Guwahati.**

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 45TH MEETING OF PROTECTION SUB-COMMITTEE OF NERPC.

The minutes of 45th meeting of Protection Sub-committee held on 30th November 2016 at Guwahati were circulated vide letter No. NERPC/SE/PCC/2016/3451-76 dated 9th December 2016.

No comments/observations were received from the constituents, the Sub-Committee may kindly confirm the minutes of 44th PCCM of NERPC

B. ITEMS FOR DISCUSSION

2. Protection audit of Agartala, Surjamaninagar, Udaipur sub-stations of TSECL and Palatana, OTPC.

During Sub Group Committee Meeting of PCC held on 24th Oct'16, the forum decided that the Protection audit of Agartala, Surjamaninagar, Udaipur sub-stations of TSECL and Palatana, OTPC are required to be taken up urgently.

For protection audit of Agartala, Surjamaninagar, Udaipur sub-stations of TSECL and Palatana, OTPC from 7th to 9th November 2016, following members were nominated by the respective constituents:

a. AEGCL- Ashutosh Bhattacharya, Dy. Manager (9435332928)
b. NERTS- Deva Prasad Pal, Sr. Engineer (9435382360)
c. NERPC- Abhijeet Agrawal, AEE (9871266951)
d. NEEPCO- Prosenjit Sen, Sr. Manager (9436167999)
e. OTPC- Smruti Ranjan Das, Manager (9612400784)
f. Tripura- Mrinal Paul, Manager (9436137022)

The team had visited the substations for Protection Audit. The Audit team has observed that there are discrepancies in the OTPC protective relay settings which are in contrast with the Ramakrishna Committee Recommendations. The team recommended to OTPC to adopt the actual gradation of proper functioning of all these protective relays in coherence with the Ramakhrishna Committee Recommendations.

In the 45th PCCM, OTPC representative stated that the protective settings of the ICT was as per the OEM recommendation and were not permitted to change. The Committee opined that the settings should be as per the requirements of the grid and therefore OTPC should give the audit report to OEM as a valid document to change the settings as per the requirements of the grid within 1 week.

OTPC & TSECL may please intimate the current status.

It was discussed in the **subgroup meeting held on 23rd Jan'17** that the last 3rd party Protection audit was done 4 years back. As per recommendations of Enquiry Committee, thorough third party protection audit need to be carried out in time bound manner. This exercise should be repeated periodically and monitored by RPCs. Subgroup agreed that it was necessary to carry out 3rd party protection audit at the earliest and referred the matter to PCC forum.

Members may please discuss

3. Identification of short lines to install line differential protection.

During Sub Group Committee Meeting of PCC held on 24th Oct'16, NERLDC informed the forum that for purpose of installation of line differential protection on Short lines, it is necessary to identify the list of lines for this purpose.

The identification exercise for installation of Differential Protection relays has to be completed for all Transmission Lines of NER Grid level on a priority basis.

As informed by BgTPP-NTPC & POWERGRID, the installation of Differential Protection on 400 kV BgTPP – Bongaigaon D/C has been completed.

As the 1st stage, differential protection is to be installed on important short lines like 132 kV Silchar – Srikona D/C, 132 kV Imphal(PG) – Imphal(MSPCL) D/C etc.

In-45th PCC meeting, forum decided that in the absence of uniformity of specific length criteria for installation of differential protection installation on short lines (valid for both existing and new transmission lines), the criteria adopted by SRPC could be referred for North-Eastern Region. After detailed deliberation, the following criterion was decided for adoption for identification of short line for differential protection:-

a) All 132 kV transmission lines of length <5 Kms.
b) All 220 kV transmission lines of length <10 Kms
c) All 400 kV transmission lines of length <50 Kms
d) All 132 kV & above dedicated transmission lines of Generators with installed capacity > 50 MW

The short lines as identified would be considered on basis of importance for installation of Differential Protection relays. The process of installation may be started wherever no additional investments in terms of Communication links between two ends of the line are required. Constituents of NER are requested to identify the lines in which line differential protections are to be installed under above criteria.

Members may please intimate the current status

4. Preparation of Draft model maintenance procedures that are to be followed by utilities.

During Sub Group Committee Meeting of PCC held on 24th Oct'16, it was noted that NERTS and AEGCL have already submitted their maintenance manual to the forum. SE(P), NERPC suggested that PGCIL, NERLDC and AEGCL together will prepare the guidelines for draft model maintenance procedure for transmission systems for all utilities. All constituents were requested to give their suggestions and feedback to them.

Sh. H. Talukdar, PGCIL, Sh. Jerin Jacob (Eng.NERLDC)/Rahul Chakrabarti, (Sr. Engr, NERLDC) and Sh. Ashutosh Bhattacharjee, DM, AEGCL were nominated to draft the guideline within 30th November 2016. The forum also agreed that the nominated members may call on utilities whenever needed.

In subgroup meeting held on 23rd January 17, following points were discussed:

i. Draft Model Maintenance procedure for transmission systems is under preparation by the group. Some of the compiled parts were discussed in the meeting and many suggestions given in the meeting to be incorporated in the draft. It is expected to be finalized in the 46th PCC. Subgroup requested POWERGRID to prepare maintenance procedure for GIS, HVDC and FSC by 31st January, 2017.

ii. It was noted that to follow the guidelines of the draft maintenance procedure, utilities may require procurement of diagnostic tools. The subgroup requested to power utilities of NER to furnish the list of diagnostics tools available with them to NERPC and NERLDC by **10th February, 2017** for further discussion. The power utilities shall inform the list of tools which are available with them. Subgroup noted that power utilities of NER may procure those tools which are not available with them from PSDF fund.

iii. This maintenance Procedure may be referred by power utilities for their own maintenance procedure of transmission system. Power utilities will do all periodic mandated maintenance and keep the record with them which will be subject to inspections in future.

Members may please finalize model maintenance procedure & utilities may intimate status about diagnostic tools.

5. Calculation of Relay Setting as per recommendation of V. Ramakrishna task Force

The relay settings details as formulated by NERTS in line with recommendations of V. Ramakrishna Task Force on Power system contingencies, had been circulated by NERLDC to all constituents of NER for comments. During Sub Group Committee Meeting of PCC held on 24th Oct'16, it was agreed that the same can be implemented at the earliest for uniformity in protection systems.

In 45th PCC meeting, it was informed to the forum that Meghalaya has started the exercise while Assam has started implementing but having problem in the Resistive Reach setting and will come up with detailed analysis of the issue in the next meeting. Tripura has assured that it will start the work at the earliest. NTPC told that they can start implementing as per NERTS formulation only after receiving comments from their Corporate Office and will communicate the same to NERPC at the earliest.

Members may please intimate current status.

6. Review of Zone-II relay settings:

During Sub Group Committee Meeting of PCC held on 24th Oct'16, the forum discussed the relay settings document finalised by NERTS POWERGRID for adoption in NER, for fulfilment with recommendations of V.Ramakrishna Committee Task Force. The forum had agreed for implementation of Zone-II / Zone-III settings accordingly.

NERLDC has circulated the impedances of shortest and longest lines for review of the reach of Zone-II Relay Settings by the constituents. Till now NERLDC has received comments from Assam, Meghalaya, OTPC and Kopili (NEEPCO).

Forum asked AEGCL to furnish the guidelines of Zone-2 timing followed by them at the earliest to NERPC & NERLDC.

NERLDC & NERPC may please intimate current status.

7. Review of Earth Fault Relay settings & resistive reach of Distance Protection

Several disturbances and major trippings in NER Grid occurred on account of fault due to vegetation etc, resulting in high-resistive faults that fall outside the characteristic of Distance Protection. In this case, Earth fault relays of faulty section should operate before Zone -2 operation of remote end.

In view of this it is proposed that the Resistive reach of Distance protection as well as settings of earth fault relays is to be reviewed by all utilities.

Members may please discuss.

8. Manual for Protection Systems:

It has been noticed that several grid events are occurring on account of different practices for protection adopted by different utilities leading to lack of co-ordination. As per Sec.7 of CEA Technical Standards for Connectivity to the Grid Regulations, 2007, utilities shall develop their own protection manuals conforming to various standards for the reference and use of its personnel.

During Sub Group Committee Meeting of PCC held on 24th Oct'16, it was noted that standard guidelines for protection system already exists. The recommendations of V. Ramakrishna Task Force Report are to be used by the utilities for all purposes.
It was also noted that CBIP has brought out an updated manual as of 2016 that contains detail guidelines for Transmission line protection. The manual was circulated to all constituents by NERLDC for reference.
The forum decided that the constituents may refer to it as guidelines for Protection systems for transmission.

In the 45th PCC meeting, the subcommittee decided that all members may refer to the CBIP manual and give comments, if any, during the next PCC meeting

Members may please discuss.

9. Review of relay settings- Substation wise (including downstream state substation).

During Sub Group Committee Meeting of PCC held on 24th Oct'16, it was informed that due to ill-coordination in relay settings between State systems and ISTS, frequent tripping of elements are occurring. Most of the Grid disturbances in NER Grid are due to this.

P&E Dept., Mizoram and DoP, Nagaland were requested to co-ordinate their relay settings with ISTS systems and implement the same as suggested by NERTS.

NERPC may take up with P&E Dept., Mizoram and DoP, Nagaland in this regard for quick implementation.

In the 45th PCCM, Chair/Sub-committee noted that whenever any state is absent in the meeting, any problem relating to the state would not be discussed as it is obvious that without their presence it is fruitless to discuss the issues related to them.
NERPC noted the absence of representatives from MSPCL, P&E Dept., Mizoram, DOP, Arunachal Pradesh and DoP, Nagaland seriously. The matter was referred to next PCC meeting.
Decision taken in sub group meeting held at Shillong on 24.10.16 are to be implemented at the earliest and status to be reported to NERPC&NERLDC.

P&E Dept., Mizoram and DoP, Nagaland may please inform the current status.

10. Details of PSS installed and activated in all Hydro stations.

During Sub Group Committee Meeting of PCC held on 24th Oct'16, NERLDC requested all power stations to provide details where PSS is installed. It was also requested to activate existing PSS after tuning and inform the same through mail.

NEEPCO vide mail dtd. 27th Oct'16 informed that all hydro stations of NEEPCO have PSS installed and activated. NERLDC vide email dtd. 27th Oct'16 had requested NEEPCO for further details of PSS.
NERLDC requested NEEPCO and NHPC to furnish details and settings of existing PSS (Time constant, PSS gain, PSS output limiter Max, Min etc.).

Only Palatana CCGT has provided the details of PSS installed and activated for damping oscillations to NERLDC, whereas the details provided by NEEPCO is not sufficient and to be submitted to NERPC/NERLDC. NEEPCO has given parameters of block diagram of some of their generators (Khandong, etc.), which do not convey any practical meaning in sense of damping of Low Frequency Oscillations. NERLDC requested NEEPCO to furnish the following details of PSS – Make, Date installed, Last date of tuning by OEM, Tuned frequency range.

In the 45th PCCM, NERLDC expressed concern in the matter of several cases of Poorly Damped/Negatively Damped Oscillations in Southern part of NER Grid, and requested NHPC to tune their PSS if it is already installed, and furnish details of PSS to NERPC&NERLDC.

NEEPCO & NHPC may please intimate current status.

11. Standardization of Disturbance Recorder Channels:

Disturbance Recorders on Transmission elements are necessary for post disturbance analysis, and identification & rectification of any protection operation. As per CBIP's manual on Protection of Generators, GT, Transformers and Networks, it is recommended to have minimum 8(eight) analog signals and 16(sixteen) binary signals per bay or circuit. Also, it should have a minimum of 5 sec of total recording time, minimum pre-fault recording time of 100 msec and minimum post-fault recording time of 1000 msec.

POWERGRID had standardized Disturbance Recorder Channels for lines, transformers & reactors. The Sub-committee requested NERPC/NERLDC to circulate the above standardization to all constituents of NER for giving comments and suggestion by 24.07.15.

NERLDC had sent this document to all constituents of NER for giving comments and suggestion by 24.07.15.

During 42nd PCC meeting, the forum requested NTPC to provide their standardized DR Channels for generator so that it may be standardized for all generating units of NER. NTPC representative readily agreed. S.E. (O) once again requested all the constituents to kindly furnish their comments so that the process may be completed.

During the 43rd PCCM, DGM (SO-II), NERLDC stated since no comments/observations were received from the constituents it may be assumed that the DR channels for line, transformer and reactor are finalized. After detailed deliberation, forum decided DR channels as finalized have to be implemented in all ISTS lines and intra-state lines with numerical relays, within 31.07.2016 and gradually for all 220kV and 132kV lines.

The forum agreed that since Assam system is the largest state system of NER Grid, standardization of DR channels in lines of Assam is felt necessary. It was decided that Assam may complete implementation of standardized DR channels by 31st August 2016, and take help from NERTS if necessary.

NTPC agreed to submit standardized DR channels for generator by 20.07.2016, which can then be discussed for adoption by all generators of NER Grid.

In 44th PCCM, AEGCL representative informed the forum that the work of DR standardization will be completed by 30th Nov'16.

Concerned utilities may please intimate the status.

12. Proposed SPS to prevent Palatana ICT over loading:

Supply of additional 100MW power tied up by Govt. of India for Bangladesh is likely to start December end. At that stage Tripura will draw power from 132KV Palatana-Suryamani Nagar line around 200 MW to maintain 200MW Power flow from Suryamani Nagar to Comila sub-station.

As per rated capacity of 125 MVA ICT, 100 MW of power may be evacuated safely through each ICT. With our both 125 MVA ICTs in service, TSECL may draw power safely to a maximum of 200 MW though Palatana-SM Nagar 132KV Line, excluding our station auxiliary power and ICT losses. During power flow of 200 MW through 132 kV line, if one of our ICT trips then the other ICT would get overloaded due to flow of 200 MW through single ICT and would ultimately lead to tripping of other ICT also. Tripping of both ICTs would lead to sudden load through off of 200 MW, which would trip subsequent feeders in cascading effect. This tripping would disturb our station auxiliary power requirement from 132 kV side and would result in tripping of both Units of OTPC, Palatana. This cascading effect may lead to a major Grid disturbance and Grid blackout condition.

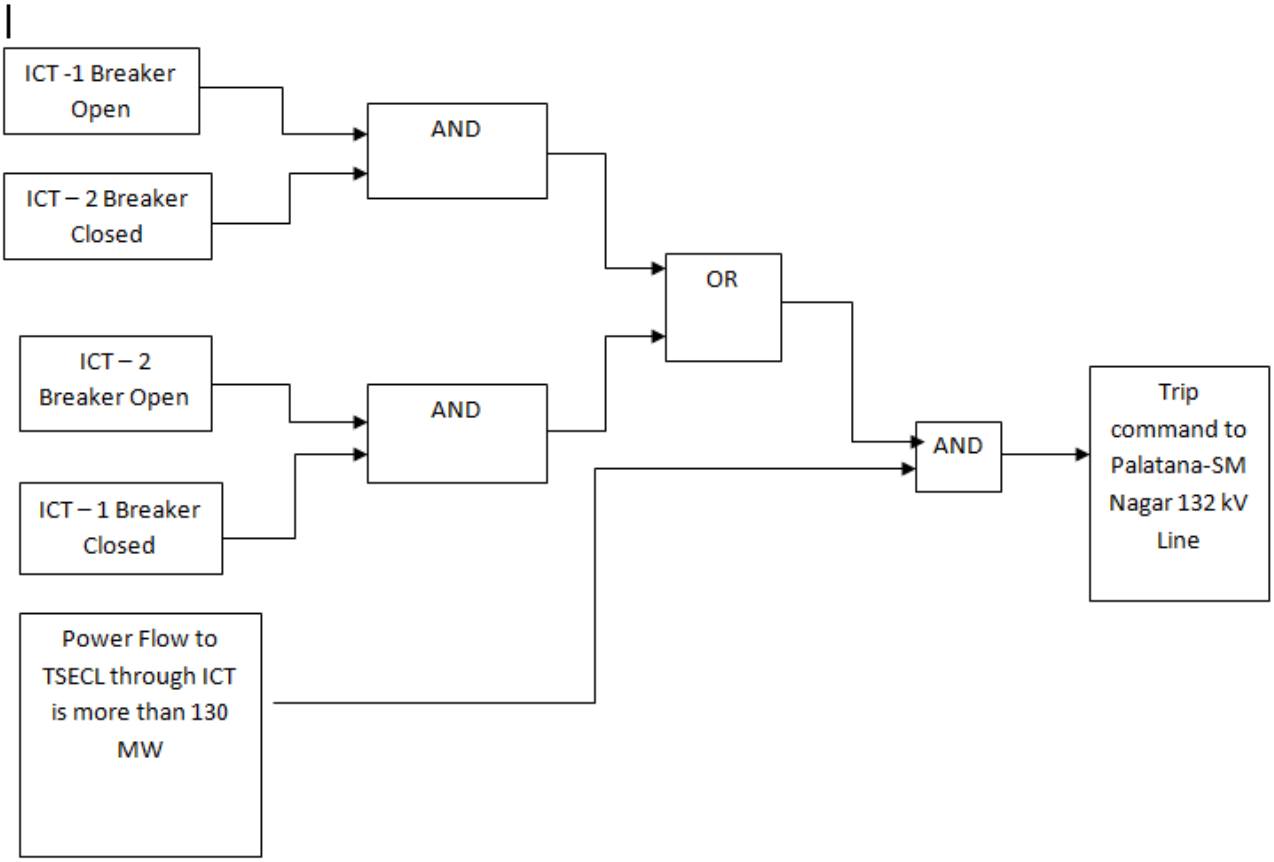
Considering the above facts and to avoid over loading of second ICT in the event of tripping of one ICT a **system protection scheme (SPS)** is proposed to trip the 132 KV line (Palatana-Surjamaninagar) at the time of tripping of one ICT to prevent overloading of other ICT.

The proposed scheme was also discussed with third party protection audit team during visit at our plant site on 09.11.2016 for protection audit.

PROPOSED PHILOSOPHY

1. This Scheme will trip 132 kV line (Palatana-Surjamaninagar) to prevent overloading and tripping of surviving ICT if one ICT trips and total power flow at that time through surviving ICT is more than 130 MW. The Trip signal will be generated by executing algorithm in DCS to trip the Palatana-SM Nagar 132KV line.

Proposed Scheme



Members may please discuss.

13. Review of Recommendations of Empowered Committee for Analysis of GD-V and GD-IV in NER.

- During Sub Group Committee Meeting of PCC held on 24th Oct'16, NERLDC indicated that SPAR (Single Phase Auto Reclosure) is not available in 132 kV AGTPP – Agartala D/C lines, which was resulting in multiple tripping of these lines on transient fault. NERTS was requested for changing of Auto-reclosure scheme to SPAR.

  It was also decided that utilities should identify those transmission lines which have no SPAR scheme for implementation of the same. Implementation of SPAR is considered necessary in view of reliability of the power system.

  In 45th PCCM, Forum requested all constituents to furnish status report of SPAR implementation to NERPC.

- It was noted that most of trippings of transmission lines in NER Grid occur either on account of lightning strikes or due to vegetation infringement problem. It was decided that all utilities will identify the lightning prone areas and conduct checking of high tower footing resistance in transmission lines in these areas.

  Since tripping of line on lightning occurs due to arcing, to prevent that it is required to either maintain low value of tower footing resistance or go for installation of lightning arrester for the particular towers having consistent high tower footing resistance due to prevailing ground conditions.

  In 45th PCCM, The forum requested all the constituents to complete the process of identification of lightning prone line sections, and initiate action in this regard.

- For purpose of information regarding furnishing of communication outage during Grid disturbance of Category-V in NER, NERLDC had circulated a format as finalized

by NLDC. However, till date information has been received only from SLDC-Mizoram, SLDC-Meghalaya, Ranganadi HEP.

NERLDC had followed up with constituents vide reminder emails dated 26th Oct'16, 01st Nov'16, 21st Nov'16. The information is being sought to solve the matter of telemetry unavailability in real-time SLDC-Mizoram, SLDC-Meghalaya, Ranganadi HEP during Grid Disturbances, which delay the restoration time.

In 45th PCCM, The subcommittee requested all constituents to submit data of communication outage during GD-V to furnish data within 1 week to NERLDC as per format.

Members may please discuss.

14. Analysis & Discussion on Events, Grid Incidences, Grid Disturbances which occurred in NER Grid w.e.f November'16- February'17.

The following numbers of Grid Disturbances (GD) & Grid Incidents (GI) occurred during the period **w.e.f 1st November, 2016 to 28th February, 2017** :-

Sl No	Control Area	GI	GD	GI	GD	GI	GD
		Nov-Dec'16	Nov-Dec'16	Jan-Dec'16	Jan-Dec'16	Jan-Feb'17	Jan-Feb'17
1	Palatana	2	0	17	3	11	0
2	AGBPP	6	0	30	2	3	0
3	AGTPP	4	1	34	6	5	1
4	Ranganadi	1	0	2	2	0	0
5	Kopili	1	0	5	2	2	0
6	Khandong	1	0	7	2	0	0
7	Doyang	1	0	4	6	0	0
8	Loktak	1	0	3	3	0	0
9	BgTPP	2	0	9	2	5	0
10	Arunachal Pradesh	0	6	0	51	0	5
11	Assam	0	7	0	55	0	3
12	Manipur	0	5	0	57	0	7
13	Meghalaya	0	0	0	69	0	2
14	Mizoram	0	0	0	24	0	3
15	Nagaland	0	5	0	68	0	1
16	Tripura	0	1	0	7	0	1

Sl . No.	Category of GD/GI	Grid Disturbance in nos		
		Nov-Dec'16	**Jan-Dec'16**	**Jan-Feb'17**
1	GI-I	7	51	5
2	GI-II	12	59	21
3	GD I	25	295	21
4	GD II	1	5	0
5	GD III	0	0	0
6	GD IV	0	0	0
7	GD V	0	1	0
8	**Total GI**	**19**	**110**	**26**
9	**Total GD**	**26**	**301**	**21**

This is for information to the members.

The root cause analysis and remedial measures to prevent the Grid Events were discussed during meetings of Sub-group of PCC held on 23rd January & 9th march 2017.

Remedial Measures suggested by subgroup are to be implemented by the concerned power utilities of NER within stipulated time. Remedial Measures suggested by subgroup are attached as *Annexure I*.

Important events are listed below:

I. Disturbance in Tripura System:

A. Tripura System (except Northern part) including Bangladesh Load, AGTPP system and Monarchak system was connected with rest of NER Grid through 132 kV AGTPP-Kumarghat, 132 kV Baramura-Jirania line & 132 kV Palatana-Surjamaninagar line (**132 kV Agartala-Dhalabil line was under shut down since 18:17 Hr on 19.12.2016 and 132 kV Palatana-Udaipur line and 66 kV Gumti-Amarpur lines kept open for system requirement**).

At 15:33 Hr on 20.12.16, **132 kV AGTPP-Kumarghat, 132 kV Baramura-Jirania line & 132 kV Palatana-Surjamaninagar line tripped**. Due to tripping of these elements, Tripura System (except Northern part) including Bangladesh load (68 MW), AGTPP system, Monarchak system and Rokhia system was separated from rest of NER Grid. Bangladesh load fed from Surajmaninagar substation was connected through 132 kV Agartala-Surajmaninargar I (132 kV Agartala-Surajmaninagar II, 132 kV Budhjangnagar-Surajmaninagar I & II kept open for system requirement).

Due to tripping of 132 kV Agartala-Surajmaninargar I, there was disturbance in Bangladesh. AGTPP Unit I & II, Rokhia Unit 7 & 8 was serving load of around 85 MW. Islanded portion was synchronised through 132 kV Baramura- Jirania Line at 1611 Hrs. 132 kV Bus coupler at Palatana was also tripped during the disturbance.

In subgroup meeting on 23rd Jan'17, POWERGRID informed that relay (7SA513) at 132 kV AGTPP- Kumarghat line relay hanged and did not operate causing other trippings. The transient fault was also cleared gradually. Root cause could not be concluded as this event includes trippings in Tripura system.

B. Tripura System except Udaipur area & P.K Bari area (P.K Bari, Dharmanagar, Kailashahar, Ambasa, Kamalpur) along with AGTPP Power Station and Bangladesh System (South Comilla load) were connected with rest of NER Grid through 132 kV Kamalpur-Dhalabil line,132 kV Monarchak- Rokhia line & 132 kV AGTPP-Kumarghat line (**132 kV Palatana-Surjamaninagar line** was under planned shutdown from 09:09 Hrs on 25/02/17, **132 kV Ambassa-Gamatilla line** was under shutdown from 09:06 on 25/02/17).

At 10:21 Hr on 25/02/17, 132 kV Kamalpur-Dhalabil line,132 kV Monarchak-Rokhia line & 132 kV AGTPP-Kumarghat line tripped.

Due to tripping of these elements, Tripura System except Udaipur area & P.K Bari area (P.K Bari, Dharmanagar, Kailashahar, Ambasa, Kamalpur) along with AGTPP Power Station and Bangladesh System (South Comilla load) were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch.

Subgroup referred this matter to next PCCM as this event involves tripping in Tripura System.

C. At 13:54 Hr on 20.03.17, **400 kV Silchar-Palatana D/C lines, 132 kV Agartala-Kumarghat line, 132 kV SM Nagar-Palatana line, 132 kV Palatana-Udaipur line, 132 kV Dhalabill-Agtartala line, 132 kV Gamaitilla-Ambassa line & 132 kV Gamaitilla- Baramura lines** tripped.

Due to tripping of these elements, Tripura System except P.K Bari area along with AGTPP Power Station, Palatana Power Station and Bangladesh System (South Comilla load) were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch.

II. Substation Blackouts:

A. **Jiribam(PG)**

At 09:39 Hr on 25.12.16, **132 kV Jiribam - Aizwal, 132 kV Loktak - Jiribam(PG), 132 kV Badarpur - Jiribam and 132 kV Haflong(PG) - Jiribam lines** tripped.

Due to tripping of these elements, Jiribam area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.

In subgroup meeting on 23rd Jan'17, POWERGRID informed **earth switch** was connected to live 132 kV Jiribam- Loktak line by **bypassing interlock** led to bus fault at Jribam end. This led to tripping of other connected lines.

B. Kumarghat (PG)

At 16:02 Hrs on 13.01.17, **132 kV Badarpur – Kumarghat line, 132 kV Aizawl – Kumarghat line, 132 kV P K Bari - Kumarghat line, 132 kV AGTPP – Kumarghat line tripped.**

Due to tripping of these elements, Kumarghat(PG) was blacked out.

In subgroup meeting on 9th March'17, POWERGRID informed Bus fault occurred due to accidental closing of transfer isolator for conducting NTAMC Works which **was earthed**.

C. Imphal(PG)

At 10:05 Hr on 03-02-2017, **132 kV Imphal-Imphal I & II lines, 132 kV Dimapur – Imphal line, 132 kV Loktak - Imphal (PG) line, 132 kV Silchar - Imphal (PG) I&II lines** tripped.

Due to tripping of these elements, Capital area & Karong area were separated from rest of NER Grid and subsequently collapsed due to no source in this area.

In subgroup meeting on 9th March'17, POWERGRID informed Bus fault occurred due to accidental closing of transfer isolator for conducting NTAMC Works which was earthed.

In subgroup meeting on 9th March'17, POWERGRID informed that delayed clearance of fault in the manipur system due to **33 kV Cable & Bus PT blast** led to tripping of all feeders of Imphal(PG) from remote end. Due to absence of Impedence relay at Imphal(PG) for Imphal(MA) feeders led to Zone-3 fault clearance.

D. Mariani (PG)

1. Mariani(PG) substation was connected with rest of NER Grid through **220 kV Mariani(PG) - Misa, 220 kV Mariani(PG) - Mokokchung (PG) I & 220 kV AGBPP - Mariani(PG) lines (Mariani(PG) - Mokokchung (PG) II line kept open for system constraint from 21:06 Hrs of 19.02.17)**.

   At 05:00 Hr on 22/02/17, 220 kV Mariani(PG) - Misa, 220 kV Mariani(PG) - Mokokchung (PG) I & 220 kV AGBPP - Mariani(PG) lines tripped.
   Due to tripping of these elements, Mariani(PG) substation was blacked out.

2. Mariani(PG) substation was connected with rest of NER Grid through **220 kV Mariani(PG) - Misa, 220 kV Mariani(PG) - Mokokchung (PG) I (220 kV AGBPP - Mariani(PG) was not restored after tripping at 22nd Feb 2017 at 05:00 Hr and Mariani(PG) - Mokokchung (PG) II line kept open for system constraint from 21:06 Hrs of 19.02.17).**

   At 05:46 Hr on 22/02/17, 220 kV Mariani(PG) - Misa & 220 kV Mariani(PG) - Mokokchung (PG) I lines tripped.
   Due to tripping of these elements, Mariani(PG) substation was blacked out.

   In subgroup meeting on 9th March'17, after detailed deliberation it was concluded that due to mal-operation of Over Voltage relay at Mariani (PG) led to these events.
   Subgroup requested POWERGRID to check over voltage relay settings, Relay time synchronization and CVTs.

III. Disturbances in Mizoram System:

Mizoram system (Zuangtui area, Luangmual area and Kolasib area) was connected with rest of NER Grid through 132 kV Aizawl- Jiribam line & 132 kV Kolasib-Badarpur line (**132 kV Aizwal-Kumarghat line was under shutdown from 07:56 Hrs of 24.02.17 for replacement of all existing insulators with polymer composite long rod insulators).**

At 14:58:58.240 Hrs on 27.02.2017, **132 kV Aizawl- Jiribam line & 132 kV Kolasib-Badarpur line** tripped.

Due to tripping of these elements, Mizoram system was separated from rest of NER Grid and subsequently collapsed due to no source in this area.

In subgroup meeting on 9th March'17, POWERGRID informed that fault was in 132 kV Badarpur - Kolasib 1 Line due to fire. Due to non opeartion of Siemens relay at 7SA513 relay at Kolasib end of 132 kV Badarpur - Kolasib 1 Line,fault was cleared from Jiribam end in Zone-3.

Subgroup requested POWERGRID to rectify problems of relays at Kolasib & Aizwal bays of 132 kV Badarpur - Kolasib 1 Line and 132 kV Aizwal - Kolasib Line respectively and furnish patrolling report and detailed report of the event to NERLDC & NERPC.

15. Analysis of transmission element tripping in the month of November'16 to February'17

The tripping of transmission elements and generating units of NER Grid were discussed during the **Meetings of Sub-group of PCC on 23rd January'17 & 9th March'17**.

The remedial measures as indicates need to be implemented by the utilities at the earliest. Remedial measures to be implemented are attached as ***Annexure I.***

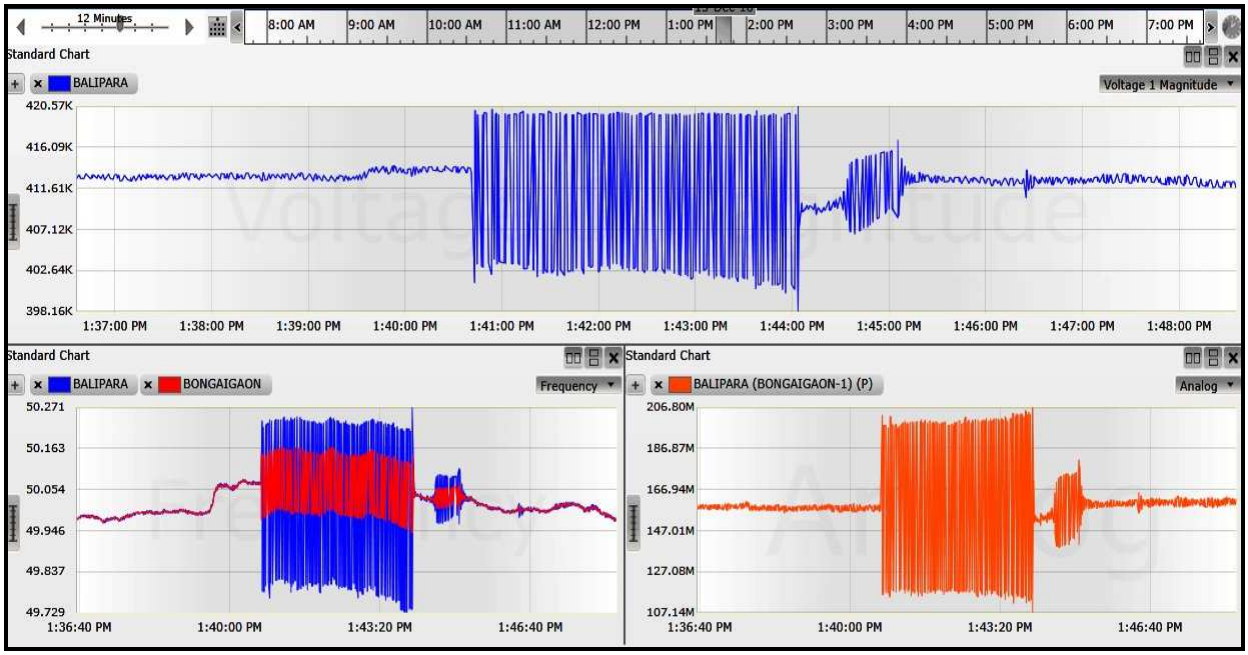
During analysis of the Grid Events, lack of information like relay indications, Disturbance Recorders etc. lead to inconclusive analysis. It has been found that the NEEPCO stations except Khandong have repeatedly failed to furnish the DR outputs. Also, Dimapur(PG), Balipara(PG) for 132 kV Balipara – Khupi line do not furnish the DR outputs in case of events. Also, DR from Assam and Imphal(PG) for Imphal(MA) feeders are not furnished in most of the disturbances.

Members may please discuss.

16. Severe Oscillation on +/- 800 kV HVDC Biswanath Chariali (NER) – Agra (NR) Bipole

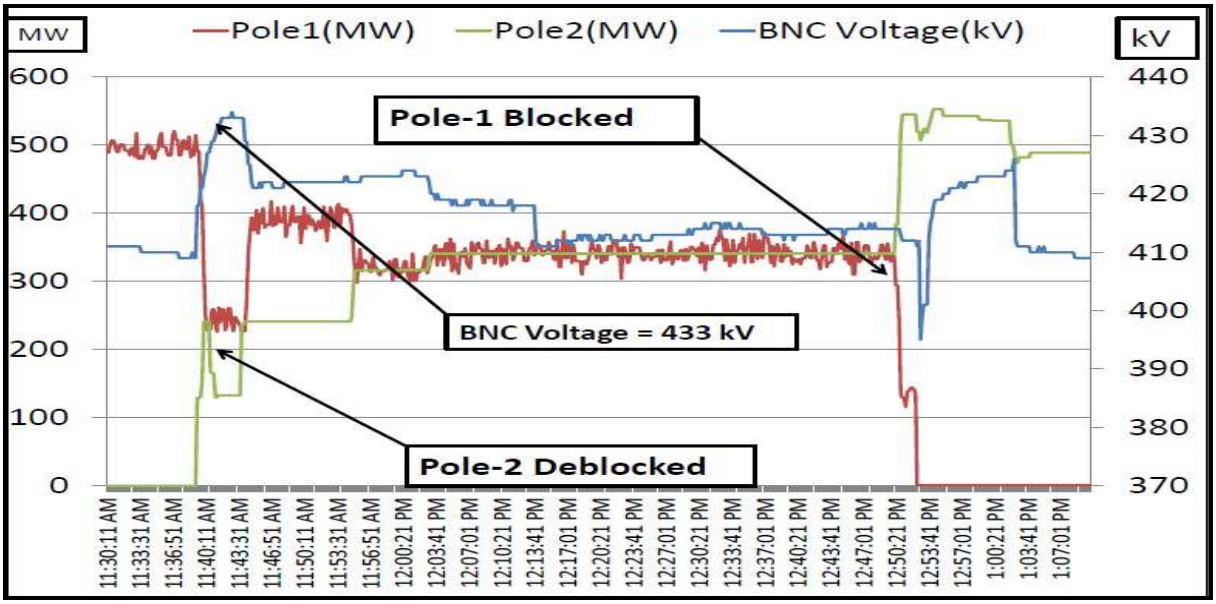
On 15th December'16 w.e.f. 1340 Hrs to 1345 Hrs, severe oscillation was observed on +/- 800 kV HVDC Biswanath Chariali (NER) – Agra (NR) link while under Bipolar operation in Current Control mode from Agra to Biswanath-Chariali.

During the period, flow on HVDC BiswanathChariali-Agra Pole-II was found to vary by about 200 MW, causing fluctuations in line flows at 400 kV Bongaigaon - Balipara line of nearly 100 MW / circuit. Oscillation of nearly 20 kV in voltage at 400kV Balipara, and nearly 0.4 Hz in frequency at Balipara was observed.



Information was requested from BNC vide emails from NERLDC dated 15th Dec, 18th Dec and 28th Dec'16.

Similarly on 05th January'17 at around 11:39 Hrs, oscillations have been recorded in active power at the time of deblocking of +/-800 kV HVDC BNC Agra for around 45 seconds. Pole-I was blocked at 1252 hrs on 05th January'17.



HVDC BNC was requested to submit report in respect of these 2 occasions, citing root cause, remedial measures taken, Sequence of events, etc. to enable secure operation of interconnected grid.

In spite of multiple follow-up with HVDC BiswanathChariali for looking into the matter of oscillation, there has been no response. Also, in matters of Grid events, response from HVDC BiswanathChariali has not been forthcoming, which is detrimental for integrated power system operation.

This issue was discussed in 128th OCCM and referred to next PCCM.

Members may please discuss.

17. Low Frequency Oscillations (LFOs) at 132 kV Agartala

There have been several instances of Low Frequency oscillations as observed from PMU at 132 kV Agartala in the period from 1st October'16 to 11th January'17.

One third of NER generation is around Agartala area with nearby gas-based generation plants at Palatana CCGT (726 MW), AGTP-CC (130 MW), Monarchak GBP (101 MW), Rokhia GBP (63 MW) and Baramura GBP (42 MW).

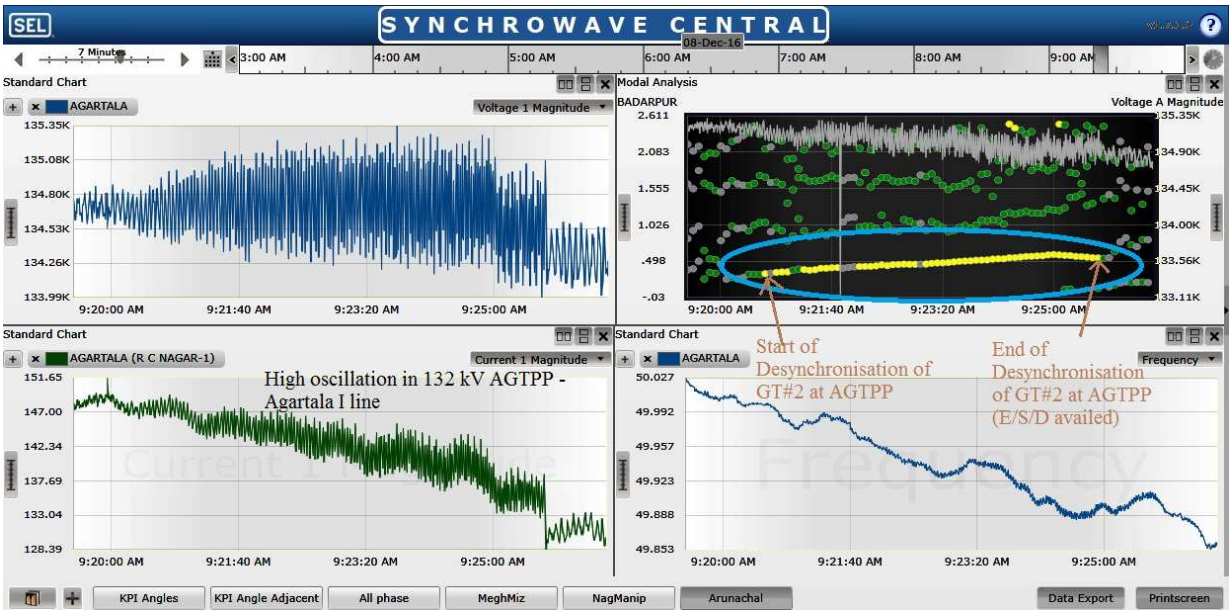
Oscillation log from October'16 to December'16					
Sl.No.	***Date***	***Starting Time***	***Duration***	***Mode of LFO***	***Remarks***
1	10-Oct-16	17:28 Hrs	39 Hrs	0.4 Hz	-
2	04-Dec-16	22:11 Hrs	20 Hrs	0.4 Hz	-
3	08-Dec-16	09:20 Hrs	10 Hrs	0.3 Hz	Oscillation during switching of Desynchronisation of AGTPP U#2 due to abnormality in fan
4	03-Jan-17	07:43 Hrs	3 Hrs	0.4 Hz	Oscillations started with tripping of AGTPP GT # 4
5	10-Jan-17	22:04 Hrs			At the same block (22:00 Hrs-22:15 Hrs), Kopili schedule was charged from 187 MW to 141 MW

On 3 particular instances, oscillations have been traced to have originated on account of switching events at AGTPP-CC of NEEPCO.

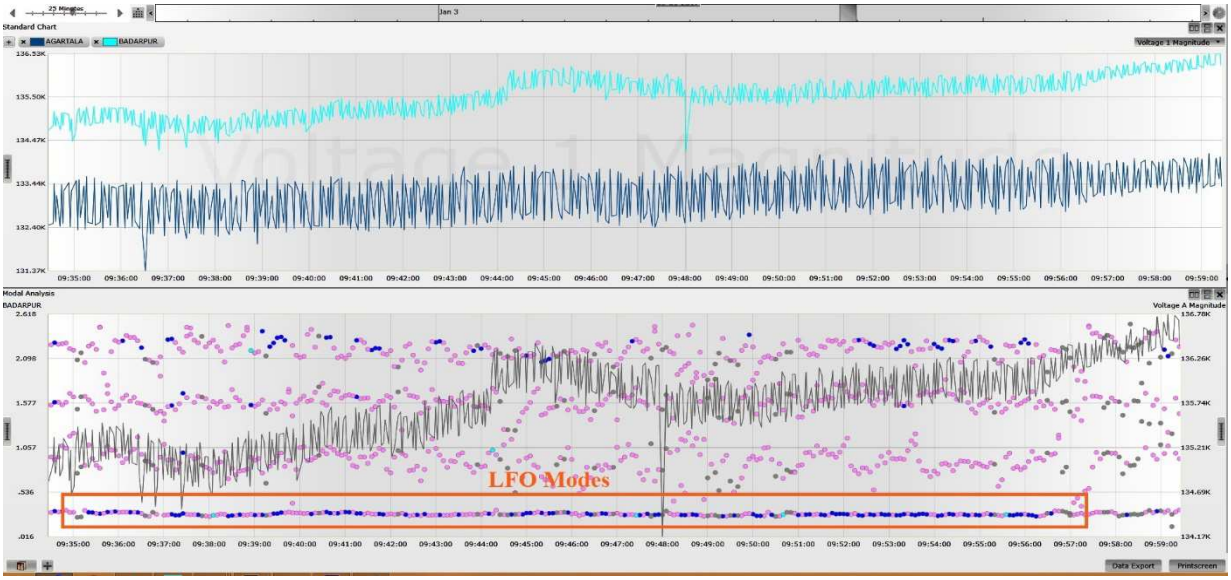
On 08th December'16 from 09:20 Hrs onwards, oscillation was seen prominently in Voltage at 132 kV Agartala PMU. No significant oscillation was observed in Active power / Frequency. In line current on 132 kV AGTPP – Agartala I line, an oscillation of nearly 5-6 A in magnitude was observed.

Upon investigation with data from PMU and SCADA-Sequence of Events, it was found that the oscillations started with Desynchonisation of AGTPP GT # 2.

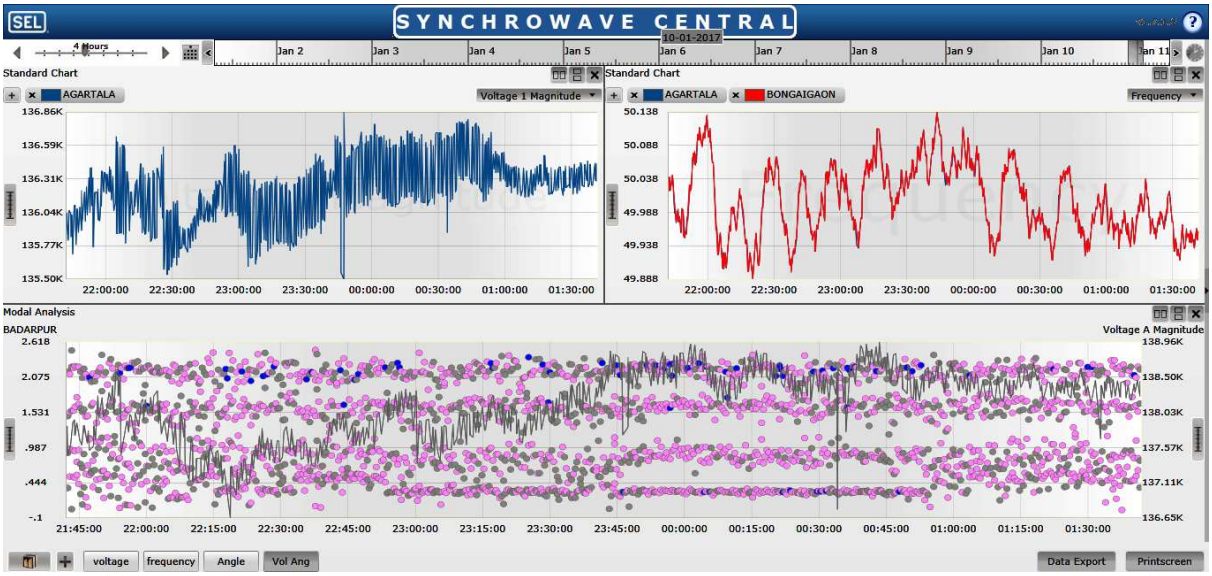
Considering the oscillation in voltage and request from AGTPP in real time to control voltage (though 132 kV Agartala voltage was around 136 kV, which is well within permissible voltage limits), it is suspected that oscillations occurred due to contribution of Automatic Voltage Regulator (AVR) of AGTPP units.



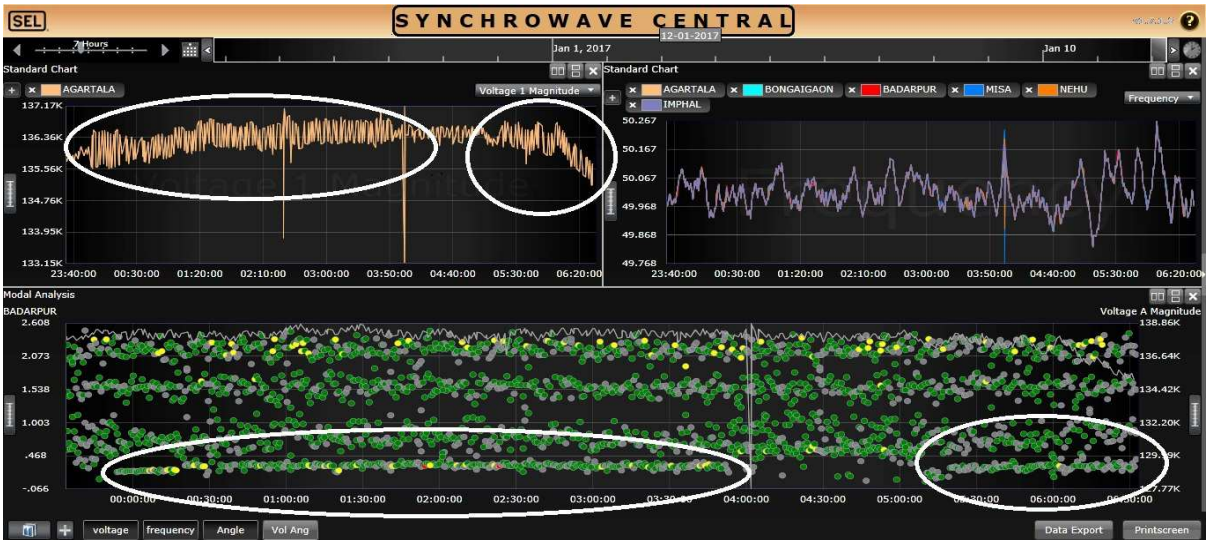
On 03rd January'17 from 07:43 Hrs onwards, oscillation was seen prominently in Voltage, at 132 kV Agartala PMU for a long duration of around 3 Hours.
Upon investigation, it was found that the oscillations started with tripping of AGTPP GT # 4.
Considering that the mode of oscillation and nature of trigger was the same, it is also suspected due to action of AVR of the in-service AGTPP units.



On 10th January'17 from 22:04 Hrs onwards, oscillation was seen prominently in Voltage, at 132 kV Agartala PMU.



On 11th January'17 from 23:23 Hrs onwards, oscillation was seen prominently in Voltage, at 132 kV Agartala PMU.



This issue was discussed in 128th OCCM and referred to next PCCM.

In **subgroup meeting held on 9th March 2017**, NERLDC showed the PMU plots of several instances of oscillations observed at 132 kV Agartala PMU and raised concern on proper tuning of Automatic Voltage Regulator (AVR) of AGTPP units considering the oscillation in voltage and many of the cases involved switching of AGTPP units. He also requested NEEPCO to take this matter seriously as these localized oscillations can spread to other generating stations connected to grid.

Sr. Manager, NEEPCO informed that there was a change in control systems of AGTTP Units 3 & 4. OEM has informed them that oscillation may be due to change in control system as oscillations were observed only in these units. He also informed that control systems of AGTPP Units 1 & 2 will be replaced soon with new ones. If those machines also experience oscillation problem, OEM will install additional equipment to damp the oscillation.

DGM (SO-II), NERLDC asked NEEPCO to check and inform forum whether PSS is enabled and functioning properly. He also requested NEEPCO to carry out AVR tuning and take necessary actions to damp out oscillations at the earliest as these oscillations can lead to wide spread oscillations in grid.

Action: AGTPP, TPGL (Baramura, Rokhia, Gumti), Palatana, Kopili

Members may please discuss.

18. Any other Item with permission of the Chair:

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List of Grid Disturbances during November’16

पूर्वोत्तर क्षेत्र में **01.11.16** से **30.11.16** तक की घटनाये / **Events in NER Grid from 01.11.16 to 30.11.16**

क्रम सं. / **Sl. No.**	ट्रिपिंग तत्वका नाम / **Name of tripping element**	मालिक / **Owner**	डाटा प्रदान करना है / **Data to be furnished by**	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / **Date & Time of Event provided by CR operator**	नोड का नाम / **Name of Node**	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / **Relay indications provided by CR operator**	ऑटो रीक्लोजर का ऑपरेशन / **Operation of Auto Reclose**	**24** घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / **DR output furnished within 24 hours (Y/N)**	**24** घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / **EL output furnished within 24 hours (Y/N)**	लोड और जनरेशन की हानि (मेगावाट में) / **Effect (Loss of Load & Generation in MW)**	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ **Category as per CEA Grid Standards**	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॅरेशन की समय / **Date and time of restoration provided by CR operator**	एस.पी.एस संचालन के विवरण / **Details of SPS Operation**	एमयू में कमी/ **Loss in MU**
A. ग्रिड डिसटरबेनसेज / **Grid Disturbance**														
1	132 kV Dimapur (PG) - Kohima	POWERGRID & DoP Nagaland	**POWERGRID & DoP,Nagaland**	**05-11-16 18:45**	Dimapur (PG)	Directional Over Current, R-Phase	Not Furnished	No	No	Loss of Load: 33& Loss of Generation: 16	GD-I	05-11-16 19:52	No SPS	0.042
					Kohima	Not Furnished	Not Furnished	No	No					
	FIR by the constituent	No												
	Brief Description of the Incident	Capital area of Nagaland was connected with rest of NER Grid through 132 kV Dimapur(PG)-Kohima line (132 kV Kohima-Karong line & 66 kV Tuensang-Likimro line kept open for system requirement). At 18:45 Hrs on 05th Novemeber 2016, 132 kV Dimapur(PG)-Kohima line tripped. Due to tripping of this element, Capital area was separated from rest of NER Grid and subsequently collapsed due to no source in this area/due to load generation mismatch.												
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 2240 MW , Antecedent Load : 2328 MW)**												
	Root Cause	Due to downstream fault in the Nagaland System , 132 kV Dimapur(PG)-Kohima tripped. Root cause could not be concluded due to unavailability of DR&Relay indications from Kohima End.												
	Remedial Measures	Nagaland shall furnish DR&Relay indications at their end and co-ordinate downstream relay settings with NERTS to prevent unwanted line trippings												

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
2	132 kV Dimapur (PG) - Dimapur (Nagaland) I	DoP Nagaland	**POWERGRID & DoP,Nagaland**	**05-11-16 18:45**	Dimapur (PG)	Directional Over Current, R-Phase	Not Furnished	No	No	Loss of Load: 59	GD-I	05-11-16 22:06	No SPS	0.212
					Dimapur	Not Furnished	Not Furnished	No	No					
	FIR by the constituent	No												
	Brief Description of the Incident	Dimapur area of Nagaland was connected with rest of NER Grid through 132 kV Dimapur (PG)-Dimapur (NA) I line. At 18:45 Hr on 5th November 2016, 132 kV Dimapur (PG)-Dimapur (NA) I line tripped (Dimapur (PG)-Dimapur (NA) II line kept open for system requirement). Due to tripping of these elements, Dimapur area was separated from rest of NER Grid and subsequently collapsed due to no source in this area												
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 2240 MW , Antecedent Load : 2328 MW)**												
	Root Cause	Due to downstream fault in the Nagaland System , 132 kV Dimapur(PG)-Dimapur(Nagaland) tripped. Root cause could not be concluded due to unavailability of DR&Relay indications from Kohima End.												
	Remedial Measures	Nagaland shall furnish DR&Relay indications at their end and co-ordinate downstream relay settings with NERTS to prevent unwanted line trippings												
3	132 kV Khandong - Umrangso	POWERGRID & AEGCL	**NEEPCO & AEGCL**	**08-11-16 12:31**	Khandong	Earth Fault	Not applicable	Yes	Yes	Loss of Load: 3	GD-I	08-11-16 13:06	No SPS	0.002
					Umrangso	No tripping	Not applicable	No	No					
	132 kV Haflong-Umrangso	POWERGRID & AEGCL	**POWERGRID & AEGCL**		Haflong	No tripping	Not applicable	No	No			08-11-16 13:06	No SPS	
					Umrangso	Earth faultt, Y-Ph	Not applicable	No	No					

पूर्वोत्तर क्षेत्र में **01.11.16** से **30.11.16** तक की घटनाये / **Events in NER Grid from 01.11.16 to 30.11.16**

क्रम सं. / **Sl. No.**	ट्रिपिंग तत्वका नाम / **Name of tripping element**	मालिक / **Owner**	डाटा प्रदान करना है / **Data to be furnished by**	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / **Date & Time of Event provided by CR operator**	नोड का नाम / **Name of Node**	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / **Relay indications provided by CR operator**	ऑटो रीक्लोजर का ऑपरेशन / **Operation of Auto Reclose**	**24** घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / **DR output furnished within 24 hours (Y/N)**	**24** घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / **EL output furnished within 24 hours (Y/N)**	लोड और जनरेशन की हानि (मेगावाट में) / **Effect (Loss of Load & Generation in MW)**	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ **Category as per CEA Grid Standards**	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / **Date and time of restoration provided by CR operator**	एस.पी.एस संचालन के विवरण / **Details of SPS Operation**	एमयू में कमी/ **Loss in MU**
	132 kV Badarpur - Jiribam	POWERGRID	**POWERGRID**	**08-11-16 12:31**	Badarpur	Earth Fault	Not applicable	No	No	Loss of Load: 3	GD-I	08-11-16 12:48	No SPS	0.002
					Jiribam	No tripping	Not applicable	No	No					
	132 kV Haflong(PG) - Jiribam	POWERGRID	**POWERGRID**		Haflong(PG)	No tripping	Not Furnished	Yes	No			08-11-16 12:50	No SPS	
					Jiribam	DP, ZI, R-Y-E, 73.5 kms	Not Furnished	Yes	No					
	FIR by the constituent	No												
	Brief Description of the Incident	Umrangso&Haflong areas of Assam were connected with rest of NER Grid through 132 kV Khandong-Umrangsho line & 132 kV Haflong(PG) - Jiribam line. At 12:31 Hrs on 08.11.16, 132 kV Khandong-Umrangsho line & 132 kV Haflong-Umrangsho line tripped. Due to tripping of these elements, Umrangso&Haflong areas were separated from rest of NER Grid and subsequently collapsed due to no source in this area.												
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1493 MW , Antecedent Load : 1444 MW)**												
	Root Cause	Due to high resistive vegetation fault , 132 kV Halflong-Jiribam line tripped. The fault was not cleared at Haflong end and Zone-3 was initiated. This led to further tripping of other lines.												
	Remedial Measures	Infringement clearance is to be done by AEGCL and status to be reported to NERLDC & NERPC on a regular basis.Non operation of distance protection relay at Haflong end is also to be checked.Jiribam end relay also has to be checked. Relay coordination is to be done by AEGCL with NERTS to check for O/C and E/F settings at Khandong and Umrangshu end.												

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
4	132 kV Haflong(PG) - Haflong	AEGCL	**POWERGRID & AEGCL**	**08-11-16 5:10**	Haflong(PG)	Over current	Not applicable	No	No	Loss of Load: 1	GD-I	08-11-16 5:25	No SPS	0.0003
					Haflong	No tripping	Not applicable	No	No					
	FIR by the constituent	No												
	Brief Description of the Incident	Haflong area of Assam was connected with rest of NER Grid through 132kV Haflong (AS)-Haflong(PG) line. At 05:10 Hrs on 08.11.16, 132 kV Haflong (AS)-Haflong(PG) line tripped. Due to tripping of this element, Haflong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.												
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1514 MW , Antecedent Load : 1370 MW)**												
	Root Cause	As informed by AEGCL,Downstream fault in their system that was not cleared on time was the reason for tripping.												
	Remedial Measures	Relay coordination of downnstream 33 kv bay with Haflong(PG)is to be done by AEGCL to avoid unwanted tripping.												
5	132 kV Dimapur (PG) - Kohima	POWERGRID & DoP Nagaland	**POWERGRID & DoP,Nagaland**	**08-11-16 12:53**	Dimapur (PG)	DP, ZI, B-E	Not Furnished	No	No	Loss of Load: 28& Loss of Generation: 18	GD-I	08-11-16 13:01	No SPS	0.004
					Kohima	No tripping	Not Furnished	No	No					
	FIR by the constituent	No												
	Brief Description of the Incident	Capital area of Nagaland was connected with rest of NER Grid through 132 kV Dimapur(PG)-Kohima line (132 kV Kohima-Karong line & 66 kV Tuensang-Likimro line kept open for system requirement). At 12:53 Hrs on 08.11.16, 132 kV Dimapur(PG)-Kohima line tripped. Due to tripping of this element, Capital area was separated from rest of NER Grid and subsequently collapsed due to load generation mismatch.												

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1518 MW , Antecedent Load : 1450 MW)**												
	Root Cause	Downstream fault in DoP, Nagland system that was not cleared on time.												
	Remedial Measures	DoP,Nagaland to co-ordinate downstream relay settings with NERTS to prevent unwanted line trippings												
6	132 kV Haflong(PG) - Haflong	AEGCL	**POWERGRID & AEGCL**	**15-11-16 23:30**	Haflong(PG)	R-Ph, O/C	Not applicable	No	No	Loss of Load: 1	GD-I	15-11-16 23:36	No SPS	0.0001
					Haflong	No tripping	Not applicable	No	No					
	FIR by the constituent	No												
	Brief Description of the Incident	Haflong area of Assam was connected with rest of NER Grid through 132kV Haflong (AS)-Haflong(PG) line. At 23:30 Hr on 15th Nov, 2016, 132kV Haflong (AS)-Haflong(PG) line tripped. Due to tripping of this element, Haflong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.												
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1997 MW , Antecedent Load : 1583 MW)**												

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	Root Cause	Downstream fault in AEGCL system that was not cleared on time was the main reason for tripping.												
	Remedial Measures	Relay coordination of downnstream 33 kv bay with Haflong(PG)is to be done by AEGCL to avoid unwanted tripping.												

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	जनरेशन की हानि (मेगावाट में) / Effect (Loss of Generation in MW)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.आर ऑपरेटर के द्वारा प्रदान की गई रेस्टॉरेशन की समय / Time of restoration provided by CR operator	आउटेज की अवधि / Outage duration	एस.पी.एस संचालन के विवरण / Details of SPS Operation
A. ग्रिड डिसटरबेनसेज / Grid Disturbance														
7	132	Balipara - Khupi	NEEPCO	**14:21**	**22-11-16 14:21**	Balipara	DP, Z-II , R-E, 72.39 Kms	Not applicable	No	0	Loss of Load: 13	19:06	4:45	SPS not operated
						Khupi	LA Blast	Not applicable	No					

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	FIR by the constituent	No												
	Brief Description of the Incident	**Khupi area of Arunachal Pradesh was connected with rest of NER Grid through 132 kV Balipara- Khupi line. At 14:21 Hr on 22.11.16, 132 kV Balipara- Khupi line tripped. Due to tripping of this element, Khupi area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**												
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1614 MW , Antecedent Load : 1412 MW)**												
	Root Cause	Y ph LA blasted in incoming of 132 kV Balipara-Khupi Line at Khupi end. LA problem has also been reported frequently at Khupi end. Also, there is no protection installed for 33 kv as informed by AEGCL.												
	Remedial Measures	DR and EL to be furnished by Khupi end. .LA earthing is to be checked properly at Khupi end as the same problem is existing repeatedly.												
8	400	Ranganadi-Biswanath Charali 1	POWERGRID	**6:44**	**27-11-16 6:44**	Ranganadi	Under Voltage, A/R Trip	Not applicable	No	0	Loss of Load: 39	6:57	0:13	No SPS
						Biswanath Charali	B-Ph Aided Trip (1.06 KAmp)	Not applicable	No					
	FIR by the constituent	No												
	Brief Description of the Incident	**Ziro area, Lekhi area & Capital area of Arunachal Pradesh & Gohpur Area of Assam were connected with rest of NER Grid through 400 kV Ranganadi-Biswanath Charali Line I & II (400 kV Ranganadi-Biswanath Charali Line II Hand Tripped due to Overvoltage, Bus Coupler CB of Gohpur kept open for system requirement). At 06:44 Hr on 27.11.16, 132 kV Ranganadi-Biswanath Charali Line I tripped. Due to tripping of this element, Ziro area, Lekhi area & Capital area of Arunachal Pradesh & Gohpur Area of Assam were separated from rest of NER Grid and subsequently collapsed due to no source in this area.**												
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1227 MW , Antecedent Load : 1394 MW)**												

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	Root Cause	The reason for tripping is confirmeed to be vegetation problem. On patrolling, bamboos were found in the promiximity of R ph at loc no 216 .												
	Remedial Measures	Infringement to be cleared at the said locations.												
	Actions taken	Infringement has been cleared at the said location as informed by POWERGRID.												
9	400	Ranganadi-Biswanath Charali 1	POWERGRID	**11:41**	**27-11-16 11:41**	Ranganadi	DP, Z-II, R-E, 130.3 Kms, A/R Successsful	Not applicable	No	0	Loss of Load: 37	11:48	0:07	No SPS
						Biswanath Charali	DP, Z-I, R-E, 17.2 Kms, A/R Successful	Not applicable	No					
	FIR by the constituent	No												
	Brief Description of the Incident	**Ziro area, Lekhi area & Capital area of Arunachal Pradesh & Gohpur Area of Assam were connected with rest of NER Grid through 400 kV Ranganadi-Biswanath Charali Line I & II (132 kV Ranganadi-Lekhi Line and 132 kV Ranganadi-Ziro Line Tripped at 11:41 hrs, 400 kV Ranganadi-Biswanath Charali Line II Hand Tripped due to Overvoltage, Bus Coupler CB of Gohpur kept open for system requirement). At 11:41 Hr on 27.11.16, 132 kV Ranganadi-Biswanath Charali Line I tripped. Due to tripping of this element, Ziro area, Lekhi area & Capital area of Arunachal Pradesh & Gohpur Area of Assam were separated from rest of NER Grid and subsequently collapsed due to no source in this area.**												
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1345 MW , Antecedent Load : 1377 MW)**												

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	Root Cause	The reason for tripping is confirmed to be vegetation problem. On patrolling, bamboos were found in the promiximity of R ph at loc no 216												
	Remedial Measures	Infringement to be cleared at the said location.												
	Actions taken	Infringement has been cleared at the said location as informed by POWERGRID.												
10	132	Loktak - Ningthoukhong	MSPCL	**13:21**	**29-11-16 13:21**	Loktak	DP, ZI, R-E, 14.2 Kms	Not Furnished	No	0	Loss of Load: 26	13:47	0:26	No SPS
						Ningthoukhong	Over current	Not Furnished	No					
	FIR by the constituent	Yes(MSPCL)												
	Brief Description of the Incident	Ningthoukhong area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Ningthoukhong line (132 kV Imphal(PG)-Ningthoukhong (from 1721 Hrs of 12.11.16) and 132 kV Kakching-Kongba line kept open for system constraint). At 1321 Hr on 29.11.16, 132 kV Loktak-Ningthoukhong line tripped. Due to tripping of this element, Ningthoukhong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.												
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1377 MW , Antecedent Load : 1474 MW)**												
11	132	Loktak - Ningthoukhong	MSPCL	**1:09**	**01-12-16 1:09**	Loktak	DP, ZI, R-E, 14.2 Kms	Not Furnished	No	0	Loss of Load: 18	3:08	1:59	No SPS
						Ningthoukhong	Over current	Not Furnished	No					
	FIR by the constituent	No												

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	Brief Description of the Incident	Ningthoukhong area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Ningthoukhong line (132 kV Imphal(PG)-Ningthoukhong (from 1721 Hrs of 12.11.16) and 132 kV Kakching-Kongba line kept open for system constraint). At 0109 Hrs on 01.12.16, 132 kV Loktak-Ningthoukhong line tripped. Due to tripping of this element, Ningthoukhong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1326 MW , Antecedent Load : 1399 MW)**												
12	132	Loktak - Ningthoukhong	MSPCL	**8:06**	**01-12-16 8:06**	Loktak	DP, ZI, R-E, 14.2 Kms	Not Furnished	No	0	Loss of Load: 6	8:30	0:24	No SPS
						Ningthoukhong	Over current	Not Furnished	No					
	FIR by the constituent	No												
	Brief Description of the Incident	Ningthoukhong area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Ningthoukhong line (132 kV Imphal(PG)-Ningthoukhong (from 1721 Hrs of 12.11.16) and 132 kV Kakching-Kongba line kept open for system constraint). At 0806 Hrs on 01.12.16, 132 kV Loktak-Ningthoukhong line tripped. Due to tripping of this element, Ningthoukhong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1362 MW , Antecedent Load : 1718 MW)**												

List of Grid Incidences during November’16

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
F. यूनिट ट्रिपिंग / Unit tripping														
1	AGBPP U 2	NEEPCO	NEEPCO	**03-11-16 1:24**	AGBPP	Due to high vibration	Not applicable	No	No	Loss of Generation: 30	GI-II	03-11-16 3:43	No SPS	0.026
	Root Cause	NEEPCO reported that the online vibration monitoring probe was loose leading to fault.												
	Remedial Measures	Proper maintenance is to be ensured to avoid such unwanted trippings.												
2	BgTPP U 1	NTPC	NTPC	**13-11-16 23:18**	BgTPP	Due to boiler tube leakage	Not applicable	No	No	Loss of Generation: 235	GI-II	Not Yet Restored	No SPS	0.035
3	Doyang U 2	NEEPCO	NEEPCO	**19-11-16 4:01**	Doyang	Tripped due to non availability of evacuation path	Not applicable	No	No	Loss of Generation: 15	GI-I	19-11-16 7:05	No SPS	0.04475
	Root Cause	NEEPCO reported that it was not Unit-2 but Unit-1 of Doyang that actually tripped. At the time of fault, Doyang-Dimapur line #1 & 2 was under S/D and Doyang-Mokukchang line tripped due to operation of directional overcurrent relay .												
	Remedial Measures	Relay settings at Doyang end has to be checked.												
4	Kopili U 3	NEEPCO	NEEPCO	**20-11-16 15:45**	Kopili	Rotor Earth Fault	Not applicable	No	No	Loss of Generation: 49	GI-II	Not yet restored	No SPS	0.0613
	Root Cause	NEEPCO informed that the tripping is due to effect of acidity. There was mositure ingression in rotor lead from generator cooler leading to Rotor earth fault.												

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	Remedial Measures	Advance type cooler tube has to be installed to avoid such trippings.												
5	Palatana GTG I	OTPC	OTPC	**21-11-16 14:15**	Palatana	Due to Exhaust Frame Blower (TK Fan)	Not applicable	No	No	Loss of Generation: 30	GI-II	21-11-16 21:42	No SPS	0.023
	Palatana STG I	OTPC	OTPC	**21-11-16 14:15**	Palatana	Due to tripping of GTG#1	Not applicable	No	No	Loss of Generation: 50		21-11-16 22:58	No SPS	0.038
	Palatana STG I	OTPC	OTPC	**21-11-16 23:13**	Palatana	Tripped on combustion trouble & high exhaust temprature spread	Not applicable	No	No	Loss of Generation: 35		21-11-16 23:41	No SPS	0.016

List of Element Tripping during November’16

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
1	400 kV Bongaigaon - New Siliguri IV	ENICL	**POWERGRID**	**01-Nov-16**	**11:06**	**01-11-16 11:06**	Bongaigaon	DP,. ZI, R-E, 74.21 kms	Not Furnished	Yes	Yes	01-11-16 12:10	No SPS
							New Siliguri	DP,. ZI, R-E, 154 kms	Not Furnished	No	No		
2	220 kV Mariani(PG)-Mokokchung (PG) I	POWERGRID	**POWERGRID**	**01-Nov-16**	**23:02**	**01-11-16 23:02**	Mariani(PG)	Direct Trip received	Not Furnished	No	No	02-11-16 15:33	No SPS
							Mokokchung(PG)	Over Voltage	Not Furnished	No	No		
	Root Cause	Line tripped due to over voltage. Y-Ph voltage was 242KV as seen from DR.											
	Remedial Measures	Overvoltage relay settings has to be checked by POWERGRID											
	Actions taken	Overvoltage settings has been increased to 245 KV at Mokokchung end as informed by POWERGRID											
3	132 kV Khliehriat (PG)-Badarpur	POWERGRID	**POWERGRID**	**02-Nov-16**	**10:56**	**02-11-16 10:56**	Khliehriat(PG)	DP, ZI, R-E 63.65 kms	Not Furnished	No	No	02-11-16 11:09	No SPS
							Badarpur	DP, ZI, R-E 55 kms	Not Furnished	Yes	Yes		
	Root Cause	DR indicates Vegetation fault as the reason for tripping											
	Remedial Measures	Patrolling has to be carried out.											
	Actions taken	Infringement has been cleared at the said location as informed by POWERGRID											

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
4	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	**POWERGRID & MePTCL**	**02-Nov-16**	**11:05**	**02-11-16 11:05**	Khliehriat (PG)	No tripping	Not applicable	No	No	02-11-16 11:15	No SPS
							Khliehriat(ME)	Earth Fault	Not applicable	No	No		
	Root Cause	Downstram fault in MePTCL system that was not cleared on time led to the tripping of 132 kV Khliehriat (PG) - Khliehriat (ME) II											
	Remedial Measures	Directionality feature& relay cordination of E/F relay at Khl(ME) to be checked.MePTCL may cordinate with POWERGRID & NEEPCO.											
	Actions taken	Earthing of 33 kV &132 kV S/S has been completed and checked properly as informed by MePTCL											
5	132 kV Rangia - Motonga	BPC	**AEGCL & BPC**	**02-Nov-16**	**16:07**	**02-11-16 16:07**	Rangia	No tripping	Not applicable	No	No	02-11-16 16:45	No SPS
							Motonga	Over current	Not applicable	No	No		
6	220 kV Mariani(PG)-Mokokchung (PG) I	POWERGRID	**POWERGRID**	**02-Nov-16**	**22:39**	**02-11-16 22:39**	Mariani(PG)	Direct Trip received	Not Furnished	No	No	03-11-16 15:05	No SPS
							Mokokchung (PG)	Over Voltage	Not Furnished	Yes	No		
	Root Cause	Line tripped due to over voltage. Y-Ph voltage was 242KV as seen from DR.											
	Remedial Measures	Overvoltage relay settings has to be checked by POWERGRID											
	Actions taken	Overvoltage settings has been increased to 245 KV at Mokokchung end as informed by POWERGRID											

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
7	400 kV BgTPP - Bongaigaon I	POWERGRID	**NTPC & POWERGRID**	**03-Nov-16**	**23:55**	**03-11-16 23:55**	BgTPP	Direct Trip received	Not Furnished	No	No	04-11-16 3:30	No SPS
							Bongaigaon	Direct Trip received	Not Furnished	No	No		
	Root Cause	As informed by POWERGRID, there was problem at BGTPP end which led to sending of DT .											
	Remedial Measures	BGTPP to furnish the reason of sending DT and rectify the problem to avoid such unwanted trippings.											
8	220 kV Mariani(PG)-Mokokchung (PG) I	POWERGRID	**POWERGRID**	**04-Nov-16**	**4:13**	**04-11-16 4:13**	Mariani(PG)	Over Voltage	Not applicable	No	No	04-11-16 17:35	No SPS
							Mokokchung(PG)	Over Voltage	Not applicable	Yes	No		
	Root Cause	As informed by Powergroid, line tripped due to over voltage. Y-Ph voltage was 242KV as seen from DR											
	Remedial Measures	Overvoltage settings has to be checked											
	Actions taken	Overvoltage settings has been increased to 245 KV at Mokokchang end as informed byPOWERGRID.											
9	132 kV Jiribam - Aizwal	POWERGRID	**POWERGRID**	**05-Nov-16**	**14:56**	**05-11-16 14:56**	Jiribam	DP, R-Y-E, ZI, 116.9 kms	Not Furnished	No	No	05-11-16 15:15	No SPS
							Aizawl	DP, R-Y-E, ZI	Not Furnished	Yes	Yes		
	Root Cause	Inclement weather condition is reported at the time of fault.The tripping is due to lightning as informed by POWERGRID.											
	Remedial Measures	Tower footing resistance is to be checked in all towers nearby fault location and if the resistance is above 10 ohm, proper earthing is to be done and is to be reported to NERPC and NERLC.											

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
10	132 kV Doyang - Mokokchung(NA)	DoP Nagaland	**NEEPCO & DoP,Nagaland**	**05-Nov-16**	**18:45**	**05-11-16 18:45**	Doyang	Directional Over Current	Not Furnished	No	No	05-11-16 19:16	No SPS
							Mokokchung (NA)	No tripping	Not Furnished	No	No		
	Root Cause	Directional overcurrent relay operated at Doyang end .											
	Remedial Measures	Relay settings at Doyang end has to be checked.											
11	220 kV Mariani(PG)-Mokokchung (PG) I	POWERGRID	**POWERGRID**	**05-Nov-16**	**21:27**	**05-11-16 21:27**	Mariani(PG)	Direct Trip received	Not Furnished	No	No	Not yet restored	No SPS
							Mokokchung(PG)	Over Voltage	Not Furnished	No	No		
	Root Cause	As informed by Powergroid, line tripped due to over voltage at Mokokchung end. Y-Ph voltage was 242KV as seen from DR											
	Remedial Measures	Overvoltage settings has to be checked											
	Actions taken	Overvoltage settings has been increased to 245 KV at Mokokchang end as informed byPOWERGRID.											
12	132 kV Loktak - Jiribam(PG)	POWERGRID	**NHPC & POWERGRID**	**06-Nov-16**	**2:40**	**06-11-16 2:40**	Loktak	DP, ZI, R-Y-B, 71 Kms	Not Furnished	No	No	06-11-16 17:01	No SPS
							Jiribam(PG)	DP, ZII, Y-E, 49.24 Kms	Not Furnished	Yes	Yes		
	Root Cause	Inclement weather condition is reported at the time of fault.As informed by POWERGRID, the tripping is due to lightning.											
	Remedial Measures	Tower footing resistance is to be checked in all towers nearby fault location and if the resistance is above 10 ohm, proper earthing is to be done and is to be reported to NERPC and NERLC.											

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
13	132 kV Kopili - Khandong I	POWEGRID	**NEEPCO**	**06-Nov-16**	**5:43**	**06-11-16 5:43**	Kopili	Line CB not tripped (Bus Coupler Tripped)	Not Furnished	No	No	06-11-16 6:15	No SPS
							Khandong	E/F, O/C	Not Furnished	No	No		
14	132 kV Kopili - Khandong II	POWEGRID	**NEEPCO**	**06-Nov-16**	**5:43**	**06-11-16 5:43**	Kopili	Line CB not tripped (Bus Coupler Tripped)	Not Furnished	No	No	06-11-16 6:15	No SPS
							Khandong	E/F, O/C	Not Furnished	No	No		
15	132 kV Dimapur (PG) - Kohima	POWERGRID & DoP Nagaland	**POWERGRID & DoP,Nagaland**	**06-Nov-16**	**16:22**	**06-11-16 16:22**	Dimapur (PG)	DP, ZI, B-E	Not Furnished	No	No	06-11-16 16:32	No SPS
							Kohima	Earth Fault	Not Furnished	No	No		
	Root Cause	As informed by POWERGRID, there is problem at state end. E/F Operated at Kohima end. DR of Kohima NA.											
	Remedial Measures	DoP, Nagaland to resolve the issue at their end and also furnish DR and EL for the tripping at their end.											
16	132 kV Loktak - Jiribam(PG)	POWERGRID	**NHPC & POWERGRID**	**06-Nov-16**	**18:10**	**06-11-16 18:10**	Loktak	DP, ZI, Y-E, 54.38 Kms	Not Furnished	No	No	Not yet restored	No SPS
							Jiribam(PG)	DP, ZI, Y-E, 40.35 Kms	Not Furnished	Yes	Yes		
	Root Cause	Inclement weather condition is reported at the time of fault.As informed by POWERGRID, the tripping is due to lightning.											
	Remedial Measures	Tower footing resistance is to be checked in all towers nearby fault location and if the resistance is above 10 ohm, proper earthing is to be done and is to be reported to NERPC and NERLC.											

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
17	132 kV Loktak - Jiribam(PG)	POWERGRID	**NHPC & POWERGRID**	**06-Nov-16**	**22:20**	**06-11-16 22:20**	Loktak	DP, ZI, Y-E, 39.22 Kms	Not Furnished	No	No	06-11-16 22:35	No SPS
							Jiribam(PG)	DP, ZI, Y-E, 66.69 Kms	Not Furnished	No	No		
	Root Cause	Inclement weather condition is reported at the time of fault.As informed by POWERGRID, the tripping is due to lightning.											
	Remedial Measures	Tower footing resistance is to be checked in all towers nearby fault location and if the resistance is above 10 ohm, proper earthing is to be done and is to be reported to NERPC and NERLC.											
18	132 kV Loktak - Jiribam(PG)	POWERGRID	**NHPC & POWERGRID**	**06-Nov-16**	**22:45**	**06-11-16 22:45**	Loktak	DP, ZI, Y-E, 22.45 Kms	Not Furnished	No	No	00-01-00 0:00	No SPS
							Jiribam(PG)	DP, ZI, Y-E, 61.04 Kms	Not Furnished	No	No		
	Root Cause	Inclement weather condition is reported at the time of fault.The tripping is reported to be due to lightning.											
	Remedial Measures	Tower footing resistance is to be checked in all towers nearby fault location and if the resistance is above 10 ohm, proper earthing is to be done and is to be reported to NERPC and NERLC.											
19	220/132 kV 50 MVA Balipara Transformer II	AEGCL	POWERGRID	**07-Nov-16**	**6:02**	**07-11-16 6:02**	Balipara	Buchholz Relay operated	Not applicable	No	No	07-11-16 15:30	No SPS
	Root Cause	Buchloz relay mal- operated 50 MVA Transformer - II which is under ASEB											
	Remedial Measures	DR and EL to be furnished by AEGCL and relays to be checked to avoid maloperation.											

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
20	400 kV Balipara - Bongaigaon III	POWERGRID	**POWERGRID**	**10-Nov-16**	**3:15**	**10-11-16 3:15**	Balipara	Over Voltage	Not applicable	No	No	10-11-16 4:15	No SPS
							Bongaigaon	Direct Trip received	Not applicable	Yes	No		
	Root Cause	As informed by POWERGRID, the fault was due to reactor winding failure at Bongaigaon end.											
	Remedial Measures	Line Reactor to be restored at the earliest to avoid over voltage of the line and the system.											
	Actions taken	Rectification under progress as informed by POWERGRID.											
21	63 MVAR line reactor of 400 kV Balipara-Bongaigaon at Bongaigaon	POWERGRID	POWERGRID	**10-Nov-16**	**3:15**	**10-11-16 3:15**	Bongaigaon	Buchholtz & PRV operated	Not applicable	No	No	10-11-16 4:15	No SPS
	Root Cause	As informed by POWERGRID, the fault was due to reactor winding failure at Bongaigaon end.											
	Remedial Measures	Line Reactor to be restored at the earliest .											
	Actions taken	Rectification under progress as informed by POWERGRID.											

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
22	400 kV BgTPP - Bongaigaon I	POWERGRID	**NTPC & POWERGRID**	**12-Nov-16**	**14:16**	**12-11-16 14:16**	BgTPP	Carrier Healthy Channel 1 relay operated	Not applicable	No	No	12-11-16 17:08	No SPS
							Bongaigaon	Direct Trip received	Not applicable	No	No		
	Root Cause	There was problem at BGTPP end which led to sending of DT at BNG end.											
	Remedial Measures	BGTPP to furnish the actual problem for sending DT and rectify the problem to avoid such unwanted trippings.											
23	+/- 800 kV Biswanath Charali-Agra II	POWERGRID	**POWERGRID**	**12-Nov-16**	**17:12**	**12-11-16 17:12**	Biswanath Charali	DCDB Earth Fault at BNC	Not applicable	No	No	13-11-16 7:46	No SPS
							Agra		Not applicable	No	No		
	Root Cause	As informed by POWERGRID, DC Earth fault was detected which was the reason for tripping.											
	Remedial Measures	Earth fault to be rectified to avoid unwated trippings											
	Action taken	As informed by POWERGRID, Earth fault has been rectified											

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
24	400 kV Palatana - Silchar II	NETC	**OTPC & POWERGRID**	**13-Nov-16**	**9:20**	**13-11-16 9:20**	Palatana	DP, ZI, Y-B-E, 27.6 Kms	Not Furnished	No	No	13-11-16 12:12	No SPS
							Silchar	Direct Trip received	Not Furnished	No	No		
	Root Cause	DR indicates Vegetation fault as the reason for tripping											
	Remedial Measures	Line patrolling has to be carried out.											
	Action taken	As informed by POWERGRID, infringement has been cleared.											
25	220 kV Mariani(PG)-Mokokchung (PG) I	POWERGRID	**POWERGRID**	**13-Nov-16**	**21:59**	**13-11-16 21:59**	Mariani(PG)	Over Voltage	Not applicable	No	No	Not Yet Restored	No SPS
							Mokokchung(PG)	Direct Trip received	Not applicable	No	No		
	Root Cause	Line tripped due to over voltage at Mokokchung end. Y-Ph voltage was 242KV as seen from DR											
	Remedial Measures	Overvoltage relay settings has to be checked by POWERGRID											
	Actions taken	Overvoltage settings has been increased to 245 KV at Mokokchung end as informed by POWERGRID											

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
26	220 kV Mariani(PG)-Mokokchung (PG) I	POWERGRID	**POWERGRID**	**14-Nov-16**	**21:34**	**14-11-16 21:34**	Mariani(PG)	Over Voltage	Not applicable	No	No	15-11-16 16:26	No SPS
							Mokokchung(PG)	Direct Trip received	Not applicable	No	No		
	Root Cause	Line tripped due to over voltage at Mokokchung end. Y-Ph voltage was 242KV as seen from DR											
	Remedial Measures	Overvoltage relay settings has to be checked by POWERGRID											
	Actions taken	Overvoltage settings has been increased to 245 KV at Mokokchung end as informed by POWERGRID											
27	220 kV Mariani(PG)-Mokokchung (PG) I	POWERGRID	**POWERGRID**	**15-Nov-16**	**23:01**	**15-11-16 23:01**	Mariani(PG)	Direct Trip received	Not applicable	No	No	16-11-16 16:34	No SPS
							Mokokchung(PG)	Over Voltage	Not applicable	No	No		
	Root Cause	Line tripped due to over voltage at Mokokchung end. Y-Ph voltage was 242KV as seen from DR											
	Remedial Measures	Overvoltage relay settings has to be checked by POWERGRID											
	Actions taken	Overvoltage settings has been increased to 245 KV at Mokokchung end as informed by POWERGRID											

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
28	220 kV Mariani(PG)-Mokokchung (PG) I	POWERGRID	**POWERGRID**	**17-Nov-16**	**1:59**	**17-11-16 1:59**	Mariani(PG)	Over Voltage	Not applicable	No	No	17-11-16 9:22	No SPS
							Mokokchung(PG)	Over Voltage	Not applicable	No	No		
	Root Cause	Line tripped due to over voltage at Mokokchung end. Y-Ph voltage was 242KV as seen from DR											
	Remedial Measures	Overvoltage relay settings has to be checked by POWERGRID											
	Actions taken	Overvoltage settings has been increased to 245 KV at Mokokchung end as informed by POWERGRID											
29	132 kV Dimapur - Bokajan	AEGCL	**POWERGRID & AEGCL**	**17-Nov-16**	**14:08**	**17-11-16 14:08**	Dimapur	DP, ZI, R-Y-B, 5.845 kms	Not Furnished	No	No	17-11-16 17:30	No SPS
							Bokajan	Not Furnished	Not Furnished	No	No		
	Root Cause	Root cause could not be concluded due to unavailability of DR&EL from both ends & relay indication from Bokajan end.As informed by AEGCL,Bokajan,Golaghat&Bokahat relays are of Toshiba make and site personals are unable to get DR&EL outputs.											
	Remedial Measures	Reason for 3-ph fault is to be investigated by AEGCL and is to be reported to NERPC&NERLDC. .											
30	132 kV Dimapur - Doyang I	POWERGRID	**POWERGRID & NEEPCO**	**18-Nov-16**	**14:01**	**18-11-16 14:01**	Dimapur	Landslide at Loc No. 57	Not applicable	No	No	19-11-16 17:08	No SPS
							Doyang	Landslide at Loc No. 57	Not applicable	No	No		
	Root Cause	As a precaution due to Landslide at Loc no 57, the line was kept out of service											

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
31	132 kV Dimapur - Doyang II	POWERGRID	**POWERGRID & NEEPCO**	**18-Nov-16**	**14:01**	**18-11-16 14:01**	Dimapur	Landslide at Loc No. 57	Not applicable	No	No	19-11-16 17:13	No SPS
							Doyang	Landslide at Loc No. 57	Not applicable	No	No		
	Root Cause	As a precaution due to Landslide at Loc no 57, the line was kept out of service											
32	220 kV Mariani(PG)-Mokokchung (PG) I	POWERGRID	**POWERGRID**	**19-Nov-16**	**4:01**	**19-11-16 4:01**	Mariani(PG)	Over Voltage	Not applicable	No	No	19-11-16 5:56	No SPS
							Mokokchung(PG)	Over Voltage	Not applicable	No	No		
	Root Cause	Line tripped due to over voltage at Mokokchung end. Y-Ph voltage was 242KV as seen from DR											
	Remedial Measures	Overvoltage relay settings has to be checked by POWERGRID											
	Actions taken	Overvoltage settings has been increased to 245 KV at Mokokchung end as informed by POWERGRID											
33	132 kV Doyang - Mokokchung(NA)	DoP Nagaland	**NEEPCO & DoP,Nagaland**	**19-Nov-16**	**4:01**	**19-11-16 4:01**	Doyang	Over Voltage	Not applicable	No	No	19-11-16 6:38	No SPS
							Mokokchung(NA)	Over Voltage	Not applicable	No	No		
	Root Cause	Line tripped due to over voltage.											
	Remedial Measures	Overvoltage relay settings has to be checked by NEEPCO and DoP Nagaland.											

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
34	220 kV Mariani(PG)-Mokokchung (PG) I	POWERGRID	**POWERGRID**	**20-Nov-16**	**22:20**	**20-11-16 22:20**	Mariani(PG)	Direct Trip received	Not applicable	No	No	Not yet restored	No SPS
							Mokokchung(PG)	Over Voltage	Not applicable	Yes	No		
	Root Cause	Line tripped due to over voltage at Mokokchung end. Y-Ph voltage was 242KV as seen from DR											
	Remedial Measures	Overvoltage relay settings has to be checked by POWERGRID											
	Actions taken	Overvoltage settings has been increased to 245 KV at Mokokchung end as informed by POWERGRID											

Event ID	Voltage Level	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Line Owner	डाटा प्रदान करना है / Data to be furnished by	Date & Time of Event	Date & Time of restoration	Outage Duration	Relay indications		Load Loss in MW (Only one entry for each event ID)	Generation Loss in MW (Only one entry for each event ID)	DR & EL submitted within 24 Hours	DR & EL submitted after 24 Hours
	(in kV)							**End A**	**End B**			**End B**	**End B**
NERLDC/GI/11/01	400	Palatana GTG I	**OTPC**	**Palatana**	**21-11-16 14:15**	**21-11-16 21:42**	7:27	Due to Exhaust Frame Blower (TK Fan)		0	30	No	No

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
NERLDC/GI/11/02	400	Palatana STG I	**OTPC**	**Palatana**	**21-11-16 14:15**	**21-11-16 22:58**	8:43	Due to tripping of GTG#1		0	50	No	No
NERLDC/GI/11/02	400	Palatana STG I	**OTPC**	**Palatana**	**21-11-16 23:13**	**21-11-16 23:41**	0:28	Tripped on combustion trouble & high exhaust temprature spread		0	35	No	No
NERLDC/GD/11/01	132	Balipara - Khupi	**NEEPCO**	**POWERGRID & NEEPCO**	**22-11-16 14:21**	**22-11-16 19:06**	4:45	DP, Z-II , R-E, 72.39 Kms	LA Blast	13	0	No	No
	Root Cause	LA blasted in incoming of 132 kV Balipara-Khupi Line at Khupi end. LA problem has also been reported frequently at Khupi end. Also, there is no protection installed for 33 kv as informed by AEGCL.											
	Remedial Measures	LA earthing is to be checked properly at Khupi end as the same problem is existing repeatedly.											
	Actions taken												

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
NERLDC/GD/11/03	400	Ranganadi-Biswanath Charali 1	**POWERGRID**	**NEEPCO & POWERGRID**	27-11-16 6:44	**27-11-16 6:57**	0:13	Under Voltage, A/R Trip	B-Ph Aided Trip (1.06 KAmp)	39	0	No	No
	Root Cause	Bamboo came in proximity of Loc 216 (R-Ph) as informed by POWERGRID											
	Remedial Measures	The location has to be cleared at the earliest.											
	Actions taken	Infringement cleared at the said location.											
NERLDC/GD/11/03	400	Ranganadi-Biswanath Charali 1	**POWERGRID**	**NEEPCO & POWERGRID**	27-11-16 11:41	27-11-16 11:48	0:07	DP, Z-II, R-E, 130.3 Kms, A/R Successsful	DP, Z-I, R-E, 17.2 Kms, A/R Successsful	37	0	No	No
	Root Cause	Bamboo came in proximity of Loc 216 (R-Ph) as informed by POWERGRID											
	Remedial Measures	The location has to be cleared at the earliest.											
	Actions taken	Infringement cleared at the said location.											

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
NERLDC/TL/11/01	132	Jiribam - Pailapool	**AEGCL**	**POWERGRID & AEGCL**	**27-11-16 15:04**	**Not yet restored**		Tripped at Jiribam end only on B Ph, Zone 1, (2.39 Kms) (3.118 KAmps)	Already open at Pailapool end. Idle charged from Jiribam end	-	-	No	No
	Root Cause	As informed by AEGCL, the reason for tripping is confirmed to be vegetation problem. Line was idle charged from Jiribam end.											
	Remedial Measures	Infringement to be cleared at the said location.											
	Actions taken												
NERLDC/TL/11/01	220	Mariani(PG)-Mokokchung (PG) I	**POWERGRID**	**POWERGRID**	**28-11-16 0:15**	**28-11-16 19:05**	18:50	Over Voltage	Over Voltage	-	-	No	No
	Root Cause	Line tripped due to over voltage at Mokokchung end. Y-Ph voltage was 244KV											
	Remedial Measures	Overvoltage relay settings has to be checked by POWERGRID											
	Actions taken	Overvoltage settings has been increased to 245 KV at Mokokchung end as informed by POWERGRID											

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
NERLDC/TL/11/02	220	Mariani(PG)-Mokokchung (PG) I	**POWERGRID**	**POWERGRID**	28-11-16 22:48	29-11-16 13:40	14:52	Direct Trip received	Over Voltage	-	-	Yes	Yes
	Root Cause	Line tripped due to over voltage at Mokokchung end . Y-Ph voltage was 244KV											
	Remedial Measures	Overvoltage relay settings has to be checked by POWERGRID											
	Actions taken	Overvoltage settings has been increased to 245 KV at Mokokchung end as informed by POWERGRID											
NERLDC/TL/11/03	132	Loktak - Ningthoukhong	**MSPCL**	**NHPC & MSPCL**	29-11-16 13:21	29-11-16 13:47	0:26	DP, ZI, R-E, 14.2 Kms	Over current	26	-	No	No
NERLDC/TL/11/04	220	Mariani(PG)-Mokokchung (PG) I	**POWERGRID**	**POWERGRID**	30-11-16 1:00	30-11-16 7:03	6:03	Direct Trip received	Over Voltage	-	-	Yes	Yes
	Root Cause	Line tripped due to over voltage at Mokokchung end. Y-Ph voltage was 244KV											
	Remedial Measures	Overvoltage relay settings has to be checked by POWERGRID											
	Actions taken	Overvoltage settings has been increased to 245 KV at Mokokchung end as informed by POWERGRID											
NERLDC/TL/12/05	132	Loktak - Ningthoukhong	**MSPCL**	**NHPC & MSPCL**	01-12-16 1:09	01-12-16 3:08	1:59	DP, RYB, 32.7kM	Not Furnished	18	-	No	No
NERLDC/TL/12/06	132	Loktak - Ningthoukhong	**MSPCL**	**NHPC & MSPCL**	01-12-16 8:06	01-12-16 8:30	0:24	DP, ZI, B-E, 32.75 kms	Earth Fault	-	-	No	No

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

क्रम सं. / Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
NERLDC/TL/12/07	+/- 800	+/- 800 Biswanath Charali-Agra I	**POWERGRID**	**POWERGRID**	**04-12-16 9:06**	**04-12-16 12:07**	3:01	Category - A, PCP -1 , FOS-3	Valve cooling system leakage detected	-	-	No	No
	Root Cause	Leakage in valve cooling system was system as the result for tripping											
	Remedial Measures	Leakage to be rectified at the earliest.											
	Actions taken	Leakage has been rectified as informed by POWERGRID.											

List of Grid Disturbances during December'16

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16																
क्रम सं. / Sl. No.	**वोल्टेज स्तर /Voltage Level**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator**	**नोड का नाम / Name of Node**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator**	**ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose**	**24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)**	**24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)**	**लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)**	**सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards**	**सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator**	**एस.पी.एस संचालन के विवरण / Details of SPS Operation**	**एमयू में कमी/ Loss in MU**
A. ग्रिड डिसटरबेनसेज / Grid Disturbance																
A. 10 मेगावाट से ऊपर ग्रिड गड़बड़ी/ Grid Disturbance above 10 MW																
1	132	Loktak - Ningthoukhong	MSPCL	**NHPC & MSPCL**	**01-12-16 1:09**	Loktak	DP, ZI, R-E, 14.2 Kms	Not Furnished	No	No	Loss of Load: 18	GD-I	01-12-16 3:08	No SPS	0.1
						Ningthoukhong	Over current	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	Ningthoukhong area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Ningthoukhong line (132 kV Imphal(PG)-Ningthoukhong line (from 1721 Hrs of 12.11.16) and 132 kV Kakching-Kongba line kept open for system constraint). At 0109 Hrs on 01.12.16, 132 kV Loktak-Ningthoukhong line tripped. Due to tripping of this element, Ningthoukhong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1326 MW , Antecedent Load : 1399 MW)**													
2	132	Balipara - Khupi	NEEPCO	**POWERGRID & NEEPCO**	**05-12-16 5:50**	Balipara	DP, ZI, 65.1 Kms	Not Furnished	No	No	Loss of Load: 15	GD-I	05-12-16 6:14	No SPS	0.02
						Khupi	Not Furnished	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	Khupi area of Arunachal Pradesh was connected with rest of NER Grid through 132 kV Balipara- Khupi line. At 05:50 Hr on 05.12.16, 132 kV Balipara- Khupi line tripped. Due to tripping of this element, Khupi area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.													

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16																
क्रम सं. / Sl. No.	**वोल्टेज स्तर /Voltage Level**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator**	**नोड का नाम / Name of Node**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator**	**ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose**	**24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)**	**24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)**	**लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)**	**सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards**	**सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator**	**एस.पी.एस संचालन के विवरण / Details of SPS Operation**	**एमयू में कमी/ Loss in MU**
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1183 MW , Antecedent Load : 1418 MW)**														
	Root Cause	Y ph LA blasted in incoming of 132 kV Balipara-Khupi Line at Khupi end. LA problem has also been reported frequently at Khupi end. Also, there is no protection installed for 33 kv as informed by AEGCL.														
	Remedial Measures	DR and EL to be furnished by Khupi end. .LA earthing is to be checked properly at Khupi end as the same problem is existing repeatedly.														
3	132	Dimapur (PG) - Dimapur (Nagaland) I	DoP Nagaland	**POWERGRID & DoP,Nagaland**	**07-12-16 10:10**	Dimapur (PG)	Back Up Earth Fault	Not applicable	No	No	Loss of Load: 23	GD-I	07-12-16 10:19	No SPS	0.02	
						Dimapur	Earth Fault	Not applicable	No	No						
	FIR by the constituent	Yes														
	Brief Description of the Incident	Dimapur area of Nagaland was connected with rest of NER Grid through 132 kV Dimapur (PG)-Dimapur (NA) I & II lines. At 10:10 Hr on 07.12.16 , 132 kV Dimapur (PG)-Dimapur (NA) I line tripped (Dimapur (PG)-Dimapur (NA) I I kept open for system requirement). Due to tripping of these elements, Dimapur area was separated from rest of NER Grid and subsequently collapsed due to no source in this area														
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1625 MW , Antecedent Load : 1345 MW)**														
	Root Cause	As informed by POWERGRID, the tripping is due to State End Fault.														
	Remedial Measures	POWERGRID and DoP Nagaland has to furnish DR and EL to analyse the main cause for tripping. Also, state has to ensure cordination of their relays with POWERGRID to avoid unwated trippping.														

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16															
क्रम सं. / Sl. No.	**वोल्टेज स्तर /Voltage Level**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator**	**नोड का नाम / Name of Node**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator**	**ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose**	**24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)**	**24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)**	**लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)**	**सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards**	**सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator**	**एस.पी.एस संचालन के विवरण / Details of SPS Operation**	**एमयू में कमी/ Loss in MU**
4	132	Dimapur (PG) - Kohima	POWERGRID & DoP Nagaland	**POWERGRID & DoP,Nagaland**	**07-12-16 15:15**	Dimapur (PG)	Tripped	Not applicable	No	No	Loss of Load: 18	GD-I	07-12-16 15:25	No SPS	0.01
						Kohima	No tripping	Not applicable	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	Capital area of Nagaland was connected with rest of NER Grid through 132 kV Dimapur(PG)-Kohima line (132 kV Kohima-Karong line & 66 kV Tuensang-Likimro line kept open for system requirement). At 15:15 Hr on 07.12.16 ,132 kV Dimapur(PG)-Kohima line tripped. Due to tripping of this element, Capital area was separated from rest of NER Grid and subsequently collapsed due to load generation mismatch.														
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 994 MW , Antecedent Load : 1449 MW)**													
	Root Cause	As informed by POWERGRID, the tripping is like due to State End Fault.													
	Remedial Measures	POWERGRID and DoP Nagaland has to furnish DR and EL to analyse the main cause for tripping. Also, state has to ensure cordination of their relays with POWERGRID to avoid unwated trippping.													

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16															
क्रम सं. / Sl. No.	**वोल्टेज स्तर /Voltage Level**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator**	**नोड का नाम / Name of Node**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator**	**ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose**	**24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)**	**24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)**	**लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)**	**सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards**	**सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator**	**एस.पी.एस संचालन के विवरण / Details of SPS Operation**	**एमयू में कमी/ Loss in MU**
5	132	Ranganadi - Ziro	POWERGRID	**NEEPCO & POWERGRID**	**15-12-16 13:22**	Ranganadi	DP, ZI, R-E	Not Furnished	No	No	Loss of Load: 12	GD-I	15-12-16 14:07	No SPS	0.01
						Ziro	Not Furnished	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	Ziro area of Arunachal Pradesh was connected with rest of NER Grid through 132 kV Ranganadi-Ziro line. At 13:22 Hr on 15.12.16 , 132 kV Ranganadi-Ziro line tripped. Due to tripping of this element, Ziro area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.														
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1252 MW , Antecedent Load : 1390 MW)**													
	Root Cause	As informed by NEEPCO, the line tripped during OPGW installation work													
	Remedial Measures	DR and EL to be furnised by POWERGRID and DoP, Nagaland.													

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16															
क्रम सं. / Sl. No.	**वोल्टेज स्तर /Voltage Level**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator**	**नोड का नाम / Name of Node**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator**	**ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose**	**24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)**	**24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)**	**लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)**	**सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards**	**सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator**	**एस.पी.एस संचालन के विवरण / Details of SPS Operation**	**एमयू में कमी/ Loss in MU**
6	132	AGTPP - Kumarghat	POWERGRID	**NEEPCO & POWERGRID**	**20-12-16 15:33**	AGTPP	DP, Z-II, B-ph, 119 km	Not applicable	No	No	**Loss of Load: 168**	**GD-II**	20-12-16 18:41	SPS 6 operated	**0.1**
					20-12-16 15:33	Kumarghat	Relay Hanged	Not Furnished	No	No					
	132	Surjamaninagar-Palatana I	POWERGRID	**TSECL & OTPC**	**20-12-16 15:33**	Surjamaninagar	No tripping	Not applicable	No	No			20-12-16 18:49	No SPS	
					20-12-16 15:33	Palatana	Earth Fault	Not applicable	No	No					
	132	Jirania - Baramura	TSECL	**TSECL**	**20-12-16 15:33**	Jirania	Over current	Not applicable	No	No			20-12-16 16:11	No SPS	
					20-12-16 15:33	Baramura	No tripping	Not applicable	No	No					
	132	Agartala-Surajmaninagar I	TSECL	**TSECL**	**20-12-16 15:33**	Agartala	No tripping	Not applicable	No	No			20-12-16 16:12	No SPS	
					20-12-16 15:33	Surjamaninagar	DP, ZI, R-Y-B	Not Furnished	No	No					
	132	AGTPP U 3	NEEPCO	NEEPCO	**20-12-16 15:33**	AGTPP	Due to SPS Operation	Not applicable	No	No	Loss of Generation: 77	GD-II	20-12-16 16:47	SPS 6 operated	0.1
	132	AGTPP U 4	NEEPCO	NEEPCO	**20-12-16 15:33**	AGTPP	Due to high exhaust steam pressure	Not applicable	No	No			20-12-16 16:16	No SPS	
	132	AGTPP STG I	NEEPCO	NEEPCO	**20-12-16 15:33**	AGTPP		Not applicable	No	No			20-12-16 18:57	No SPS	
	132	AGTPP STG II	NEEPCO	NEEPCO	**20-12-16 15:33**	AGTPP	Due to of tripping of Unit 3 (GTG)	Not applicable	No	No			21-12-16 0:56	No SPS	

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16															
क्रम सं. / Sl. No.	**वोल्टेज स्तर /Voltage Level**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator**	**नोड का नाम / Name of Node**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator**	**ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose**	**24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)**	**24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)**	**लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)**	**सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards**	**सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator**	**एस.पी.एस संचालन के विवरण / Details of SPS Operation**	**एमयू में कमी/ Loss in MU**
6	132	Monarchak GTG	NEEPCO	NEEPCO	**20-12-16 15:33**	Monarchak	Over frequency	Not applicable	No	No	Loss of Generation: 65		20-12-16 18:27	No SPS	
	132	Rokhia U 9	TPGCL	TPGCL	**20-12-16 15:33**	Rokhia	Tripped	Not applicable	No	No	Loss of Generation: 30		20-12-16 16:39	No SPS	
	FIR by the constituent	Yes													
	Brief Description of the Incident	Tripura System (except Northern part) including Bangladesh Load, AGTPP system and Monarchak system was connected with rest of NER Grid through 132 kV AGTPP-Kumarghat, 132 kV Baramura-Jirania line & 132 kV Palatana-Surjamaninagar line (132 kV Agartala-Dhalabil line was under shut down since 18:17 Hr on 19.12.2016 and 132 kV Palatana-Udaipur line and 66 kV Gumti- Amarpur lines kept open for system requirement). At 15:33 Hr on 20.12.16, 132 kV AGTPP-Kumarghat, 132 kV Baramura-Jirania line & 132 kV Palatana-Surjamaninagar line tripped. Due to tripping of these elements, Tripura System (except Northern part) including Bangladesh load (68 MW), AGTPP system, Monarchak system and Rokhia system was separated from rest of NER Grid. Bangladesh load fed from Surajmaninagar substation was connected through 132 kV Agartala-Surajmaninargar I (132 kV Agartala-Surajmaninagar II, 132 kV Budhjangnagar-Surajmaninagar I & II kept open for system requirement). Due to tripping of 132 kV Agartala-Surajmaninargar I, there was disturbace in Bangladesh. AGTPP Unit I & II, Rokhia Unit 7 & 8 was serving load of around 85 MW. Islanded portion was synchronised through 132 kV Baramura- Jirania Line at 1611 Hrs. 132 kV Bus coupler at Palatana was also tripped during the disturbance.													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1256 MW , Antecedent Load : 1409 MW)**													
	Root Cause	As informed by POWERGRID, the relay(7SA513) at 132 kv AGTPP- Kumarghat line relay hanged and did not operate causing other trippings. The transient fault was also cleared gradually.Root cause could not be concluded as this event includes trippings in Tripura system.													
	Remedial Measures	As root cause not concluded,this will be discussed in the next PCCM.													
	Actions taken	As informed by POWERGRID, New Relay is under procurement and is under tendering stage													

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16																
क्रम सं. / Sl. No.	**वोल्टेज स्तर /Voltage Level**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator**	**नोड का नाम / Name of Node**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator**	**ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose**	**24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)**	**24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)**	**लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)**	**सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards**	**सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator**	**एस.पी.एस संचालन के विवरण / Details of SPS Operation**	**एमयू में कमी/ Loss in MU**
7	132	Jiribam - Aizwal	POWERGRID	**POWERGRID**	**25-12-16 9:39**	Jiribam	Bus fault	Not Furnished	No	No	Loss of Load: 13	GD-I	25-12-16 10:12	No SPS	0.02
						Aizawl	DP, ZII, R-Y-B	Not Furnished	No	No					
		Loktak - Jiribam(PG)	POWERGRID	**NHPC & POWERGRID**		Loktak	Not Furnished	Not Furnished	No	No			25-12-16 10:17		
						Jiribam(PG)	Bus fault	Not Furnished	No	No					
		Badarpur - Jiribam	POWERGRID	**POWERGRID**		Badarpur	Not Furnished	Not Furnished	No	No			25-12-16 10:22		
						Jiribam	Bus fault	Not Furnished	No	No					
		Haflong(PG) - Jiribam	POWERGRID	**POWERGRID**		Haflong(PG)	Not Furnished	Not Furnished	No	No			25-12-16 10:31		
						Jiribam	Bus fault	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	Jiribam area of Manipur was connected with rest of NER Grid through 132 kV Jiribam(PG)-Jiribam (MA) line (132 kV Jiribam(MA)-Rengpang line is under long outage). At 09:39 Hr on 25.12.16 ,132 kV Jiribam - Aizwal, 132 kV Loktak - Jiribam(PG), 132 kV Badarpur - Jiribam and 132 kV Haflong(PG) - Jiribam lines tripped. Due to tripping of this element, Jiribam area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1321 MW , Antecedent Load : 1518 MW)**													

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16																
क्रम सं. / Sl. No.	**वोल्टेज स्तर /Voltage Level**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator**	**नोड का नाम / Name of Node**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator**	**ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose**	**24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)**	**24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)**	**लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)**	**सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards**	**सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator**	**एस.पी.एस संचालन के विवरण / Details of SPS Operation**	**एमयू में कमी/ Loss in MU**
7	**Root Cause**	As informed by POWERGRID, Earth switch was connected to live 132 kV Jiribam- Loktak line, after Bus transfer, leading to Bus dead at Jribam end. This led to other tripping of other connected lines.														
	Remedial Measures	DR and EL to be furnised by POWERGRID . Also, strict checking before operating isolator and earth switch is to be done to avoid such unwanted trippings.Unwanted tripping due to human error should be avoided. All the utilities may stricly follow internal procedures while availing shutdowns or shutdown returns.														

B. 10 मेगावाट से निचे ग्रिड गड़बड़ी/ Grid Disturbance below 10 MW

1	132	Loktak - Ningthoukhong	MSPCL	**NHPC & MSPCL**	**01-12-16 8:06**	Loktak	DP, ZI, R-E, 14.2 Kms	Not Furnished	No	No	Loss of Load: 6	GD-I	01-12-16 8:30	No SPS	0.002
						Ningthoukhong	Over current	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	Ningthoukhong area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Ningthoukhong line (132 kV Imphal(PG)-Ningthoukhong line (from 1721 Hrs of 12.11.16) and 132 kV Kakching-Kongba line kept open for system constraint). At 0806 Hrs on 01.12.16, 132 kV Loktak-Ningthoukhong line tripped. Due to tripping of this element, Ningthoukhong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1362 MW , Antecedent Load : 1718 MW)**													

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16															
क्रम सं. / Sl. No.	**वोल्टेज स्तर /Voltage Level**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator**	**नोड का नाम / Name of Node**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator**	**ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose**	**24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)**	**24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)**	**लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)**	**सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards**	**सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator**	**एस.पी.एस संचालन के विवरण / Details of SPS Operation**	**एमयू में कमी/ Loss in MU**
2	132	Loktak - Ningthoukhong	MSPCL	**NHPC & MSPCL**	**06-12-16 13:04**	Loktak	DP, ZI, R-Y-E	Not Furnished	No	No	Loss of Load: 9	GD-I	07-12-16 14:20	No SPS	0.1
						Ningthoukhong	Tripped	Not applicable	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	Ningthoukhong area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Ningthoukhong line (132 kV Imphal(PG)-Ningthoukhong line is under outage (from 1721 Hrs of 12.11.16) and 132 kV Kakching-Kongba line kept open for system constraint). At 1304 Hrs on 06.12.16, 132 kV Loktak-Ningthoukhong line tripped. Due to tripping of this element, Ningthoukhong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1158 MW , Antecedent Load : 1418 MW)**													
3	132	Loktak - Rengpang	MSPCL	**NHPC & MSPCL**	**12-12-16 12:13**	Loktak	DP, ZI, R-Y-E	Not Furnished	No	No	Loss of Load: 0.6	GD-I	12-12-16 13:16	No SPS	0.1
						Rengpang	DP, ZI, R-Y-E	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	Rengpang area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Rengpang line (132 kV Rengpang-Jiribam(MA) line is under long outage). At 12:13 Hr on 12.12.16 ,132 kV Loktak-Rengpang line tripped. Due to tripping of this element,Rengpang area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1217 MW , Antecedent Load : 1361 MW)**													

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16															
क्रम सं. / Sl. No.	**वोल्टेज स्तर /Voltage Level**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator**	**नोड का नाम / Name of Node**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator**	**ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose**	**24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)**	**24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)**	**लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)**	**सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards**	**सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator**	**एस.पी.एस संचालन के विवरण / Details of SPS Operation**	**एमयू में कमी/ Loss in MU**
4	132	Loktak - Rengpang	MSPCL	**NHPC & MSPCL**	**12-12-16 13:30**	Loktak	Tripped	Not applicable	No	No	Loss of Load: 0.6	GD-I	13-12-16 17:08	No SPS	0.0001
						Rengpang	Tripped	Not applicable	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	Rengpang area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Rengpang line (132 kV Rengpang-Jiribam(MA) line is under long outage). At 13:30 Hr on 12.12.16 ,132 kV Loktak-Rengpang line tripped. Due to tripping of this element,Rengpang area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1189 MW , Antecedent Load : 1357 MW)**													
5	132	Ranganadi - Ziro	POWERGRID	**NEEPCO & POWERGRID**	**21-12-16 11:01**	Ranganadi	Earth Fault, R-ph	Not Furnished	Yes	No	Loss of Load: 7	GD-I	21-12-16 11:22	No SPS	0.004
						Ziro	No tripping	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	Ziro area of Arunachal Pradesh was connected with rest of NER Grid through 132 kV Ranganadi-Ziro line. At 11:01 Hr on 21.12.16 , 132 kV Ranganadi-Ziro line tripped. Due to tripping of this element, Ziro area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1434 MW , Antecedent Load : 1511 MW)**													

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16																
क्रम सं. / Sl. No.	**वोल्टेज स्तर /Voltage Level**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator**	**नोड का नाम / Name of Node**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator**	**ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose**	**24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)**	**24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)**	**लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)**	**सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards**	**सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator**	**एस.पी.एस संचालन के विवरण / Details of SPS Operation**	**एमयू में कमी/ Loss in MU**
5	**Root Cause**	POWERGRID informed that the tripping was due to operation of Over current relay at Ranganadi end.														
	Remedial Measures	Relay settings at Ranganadi end to be checked by NEEPCO.														
6	132	Haflong(PG) - Haflong	AEGCL	**POWERGRID & AEGCL**	**25-12-16 9:39**	Haflong(PG)	Loss of Voltage	Not Furnished	No	No	Loss of Load: 0.6	GD-I	25-12-16 10:33	No SPS	0.001	
						Haflong	Loss of Voltage	Not Furnished	No	No						
	FIR by the constituent	No														
	Brief Description of the Incident	Haflong area of Assam was connected with rest of NER Grid through 132kV Haflong (AS)-Haflong(PG) line. At 09:39 Hr on 25.12.16, 132kV Haflong (AS)-Haflong(PG) line tripped. Due to tripping of this element, Haflong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.															
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1321 MW , Antecedent Load : 1518 MW)**														
	Root Cause	Downstram fault in AEGCL system that was not cleared on time.														
	Remedial Measures	Relay coordination of downnstream 33 kv bay with Haflong(PG)is to be done by AEGCL to avoid unwanted tripping.														

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16															
क्रम सं. / Sl. No.	**वोल्टेज स्तर /Voltage Level**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator**	**नोड का नाम / Name of Node**	**सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator**	**ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose**	**24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)**	**24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)**	**लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)**	**सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards**	**सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator**	**एस.पी.एस संचालन के विवरण / Details of SPS Operation**	**एमयू में कमी/ Loss in MU**
7	132	Khandong - Umrangso	POWERGRID & AEGCL	**NEEPCO & AEGCL**	**25-12-16 9:39**	Khandong	Back Up Earth Fault	Not Furnished	No	No	Loss of Load: 3	GD-I	25-12-16 10:25	No SPS	0.003
						Umrangso	No tripping	Not Furnished	No	No					
		Haflong-Umrangso	POWERGRID & AEGCL	**POWERGRID & AEGCL**		Haflong	Not Furnished	Not Furnished	No	No			25-12-16 10:28		
						Umrangso	Not Furnished	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	Umrangso area of Assam was connected with rest of NER Grid through 132 kV Khandong-Umrangsho line & 132 kV Haflong-Umrangsho line .At 09:39 Hr on 25.12.16, 132 kV Khandong-Umrangsho line & 132 kV Haflong-Umrangsho line tripped. Due to tripping of these elements, Umrangsho area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1321 MW , Antecedent Load : 1518 MW)**													
	Root Cause	As informed by POWERGRID, the tripping was due to relay maloperation(relay over-reach) at Khandong end													
	Remedial Measures	Relay setting to be checked by NEEPCO at Khandong end to avoid such malopertaion.													

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16															
क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU

List of Grid Incidences during November’16

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
F. यूनिट ट्रिपिंग / Unit tripping													
1	132	AGTPP U 3	NEEPCO	**05-12-16 7:47**	AGTPP	High air inlet differential due to heavy fog	Not applicable	No	No	Loss of Generation: 5	GI-I	05-12-16 18:39	No SPS
	Root Cause	As informed by NEEPCO, there is filter problem in winter season due to heavy fog and dust leading to this type of tripping.											
	Remedial Measures	There has to be proper cleaning to avoid accumulation of dust and other particles.											
2	400	Palatana GTG II	Palatana	**07-12-16 12:00**	Palatana	High frequency	Not applicable	No	No	Loss of Generation: 215	GI-II	07-12-16 19:10	No SPS
	400	Palatana STG II	Palatana	**07-12-16 12:00**	Palatana	Back Up Earth Fault	Not applicable	No	No	Loss of Generation: 123		07-12-16 19:57	No SPS
3	400	BgTPP U 1	BgTPP	**09-12-16 10:02**	BgTPP	Due to High Generator cooler temperature	Not applicable	No	No	Loss of Generation: 188	GI-II	09-12-16 13:06	No SPS

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
4	132	AGTPP STG II	AGTPP	**10-12-16 4:20**	AGTPP	Due to Turbine Air Inlet Differential Pressure high	Not applicable	No	No	Loss of Generation: 10	GI-I	13-12-16 2:25	No SPS
	132	AGTPP U 4	AGTPP	**10-12-16 4:20**	AGTPP	Due to High Generator cooler temperature	Not applicable	No	No	Loss of Generation: 20		10-12-16 13:36	No SPS
	132	AGTPP U 2	AGTPP	**10-12-16 4:25**	AGTPP	Due to alarm "Boiler Trip to GTG trip	Not applicable	No	No	Loss of Generation: 19	GI-I	10-12-16 5:38	No SPS
	132	AGTPP STG I	AGTPP	**10-12-16 4:27**	AGTPP	Due to Power Failure in station PMCC	Not applicable	No	No	Loss of Generation: 10	GI-I	10-12-16 23:55	No SPS
	Root Cause	NEEPCO informed auxiliary power failure as the reason for tripping of units.											
	Remedial Measures	The problem to be attended immediately to avoid further trippings.											
	Actions Taken	The issue has already been taken care as informed by NEEPCO.											

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
5	400	Ranganadi U 2	NEEPCO	**11-12-16 18:42**	Ranganadi	Malfunctioning of Control Circuit.	Not applicable	No	No	Loss of Generation: 110	GI-II	11-12-16 19:28	No SPS
	Root Cause	As informed by NEEPCO, the unit was under Annual Plant Maintenance and tripped at the time of synchronisation due to problem in control circuit.											
	Remedial Measures	The control circuit is to checked and the problem is to be rectified at the earliest.											
	Actions Taken	As informed by NEEPCO, the problem is rectified.											
6	220	AGBPP U 2	NEEPCO	**13-12-16 0:56**	AGBPP	Due to tripping of gas compressor III	Not applicable	No	No	Loss of Generation: 40	GI-II	13-12-16 2:00	No SPS
	220	AGBPP U 7	NEEPCO		AGBPP	Due to tripping of gas compressor III	Not applicable	No	No			13-12-16 3:15	No SPS
	Root Cause	As informed by NEEPCO, Unit-1 was in standby mode. Unit 7 tripped due to trippping of Unit-2 because of Gas Compression-3 problem.											
	Remedial Measures	Most of the recent tripping of AGBPP unit is due to tripping of GC-3. NEEPCO has to seriously look into the matter to rectify it.											
	Actions Taken	As informed by NEEPCO, the fluctuation in gas compressor is being looked after.											

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
7	132	AGTPP STG II	NEEPCO	**13-12-16 5:45**	AGTPP	Exhausting pressure high	Not applicable	No	No	Loss of Generation: 20	GI-I	13-12-16 17:16	No SPS
	Root Cause	NEEPCO informed Teething problem as the reason for tripping											
	Remedial Measures	The issue has to be atended at the earliest to avoid further trippings.											
	Actions Taken	The issue has already been taken attended .											
8	132	AGTPP STG I	NEEPCO	**13-12-16 15:51**	AGTPP	Tripped due to triping of Station Auxilary Supply	Not applicable	No	No	Loss of Generation: 22	GI-I	15-12-16 0:35	No SPS
	Root Cause	NEEPCO informed Teething problem as the reason for tripping											
	Remedial Measures	The issue has to be atended at the earliest to avoid further trippings.											
	Actions Taken	The issue has already been taken attended as informed by NEEPCO.											

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
9	220	AGBPP U 2	NEEPCO	**16-12-16 17:10**	AGBPP	Due to tripping of gas compressor III	Not applicable	No	No	Loss of Generation: 42	GI-II	16-12-16 17:50	No SPS
	220	AGBPP U 4	NEEPCO		AGBPP	Due to tripping of gas compressor III	Not applicable	No	No			16-12-16 17:51	No SPS
	220	AGBPP U 7	NEEPCO		AGBPP	Due to tripping of gas compressor III	Not applicable	No	No			16-12-16 19:01	No SPS
	Root Cause	The tripping was due to problem in Gas Compressor -3.											
	Remedial Measures	Due to frequent tripping of Gas Compressor-3, the problem has to be attended to avoid such trippings.											
	Actions Taken	As informed by NEEPCO, they will look into the matter											
10	220	AGBPP U 2	NEEPCO	**18-12-16 8:17**	AGBPP	Due to tripping of gas compressor III	Not applicable	No	No	Loss of Generation: 28	GI-II	18-12-16 13:01	No SPS
	220	AGBPP U 7	NEEPCO		AGBPP	Due to tripping of gas compressor III	Not applicable	No	No			18-12-16 14:05	No SPS
	Root Cause	The tripping was due to problem in Gas Compressor -3.											
	Remedial Measures	Due to frequent tripping of Gas Compressor-3, the problem has to be attended to avoid such trippings.											
	Actions Taken	As informed by NEEPCO, they will look in to the matter											

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
11	220	AGBPP U 2	NEEPCO	**23-12-16 11:16**	AGBPP	Tripping of Gas Compressor III	Not applicable	No	No	Loss of Generation: 28	GI-II	**23-12-16 12:25**	No SPS
		AGBPP U 7						No	No			**23-12-16 13:21**	
	Root Cause	The tripping was due to problem in Gas Compressor -3.											
	Remedial Measures	Due to frequent tripping of Gas Compressor-3, the problem has to be attended to avoid such trippings.											
	Actions Taken	As informed by NEEPCO, they will look in to the matter											
12	132	Loktak U 2	NHPC	**25-12-16 9:39**	Loktak	Due to high fluctuation	Not applicable	No	No	Loss of Generation: 68	GI-I	**25-12-16 10:16**	No SPS
		Loktak U 3						No	No			**25-12-16 9:56**	

पूर्वोत्तर क्षेत्र में 01.12.16 से 31.12.16 तक की घटनाये / Events in NER Grid from 01.12.16 to 31.12.16

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation
13	132	AGBPP U 4	NEEPCO	**25-12-16 11:42**	AGBPP	Due to tripping of gas compressor II	Not applicable	No	No	Loss of Generation: 14	GI-I	**25-12-16 16:38**	No SPS
	Root Cause	The tripping was due to problem in Gas Compressor -2.											
	Remedial Measures	Problem in Gas Compressor-2 to be attended at the earliest to avoid further tripping.											
	Actions Taken	As informed by NEEPCO, they will look into the matter											
14	132	Khandong U 1	NEEPCO	**01-01-17 14:05**	Khandong	Tripped due to excitation problem	Not applicable	No	No	Loss of Generation: 24	GI-I	02-01-17 10:58	No SPS
	Root Cause	NEEPCO informed that the tripping of unit was due to DVR problem											
	Remedial Measures	The problem to be rectified at the earliest.											
	Actions Taken	As informed by NEEPCO, they will look into the matter											

List of Element Tripping during December’16

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

Event ID	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Line Owner	डाटा प्रदान करना है / Data to be furnished by	Date & Time of Event	Date & Time of restoration	Relay indications	
NERLDC/TL/12/01	+/- 800	+/- 800 Biswanath Charali-Agra I	**POWERGRID**	**POWERGRID**	**04-12-16 9:06**	**04-12-16 12:07**	**Category - A, PCP -1 , FOS-3**	**Valve cooling system leakage detected**
	Root Cause	As informed by POWERGRID, Valve cooling system leakage was detected at Biswanath Charali end which led to the tripping of+/- 800 Biswanath Charali-Agra I.						
	Remedial Measures	Leakage of valve cooling system is to be attended by POWERGRID at Biswanath Charali end.						
	Actions Taken	The problem has already been rectified as informed by POWERGRID.						
NERLDC/TL/12/02	220	Mariani(PG)-Mokokchung (PG) I	**POWERGRID**	**POWERGRID**	**05-12-16 23:51**	**06-12-16 10:26**	Direct Trip received	Over Voltage
	Root Cause	Tripping due to Over volatge int Y-phase.DR at time of trippping shows voltage around 138 kV in R-ph. 142 kV in Y-ph, 139 kV in B phase.						
	Remedial Measures	Over Voltage settings at Mokokchung to be increased to 245 kV.						
	Actions Taken	As informed by POWERGRID,Over Voltage settings at Mokokchung has been increased from 242 kV to 245 kV.						

List of Element Tripping during January'17

Element Tripping from 01.01.2017 to 31.01.17

Event ID	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Line Owner	डाटा प्रदान करना है / Data to be furnished by	Date & Time of Event	Date & Time of restoration	Relay indications		Operation of Auto Reclose		DR & EL submitted within 24 Hours		DR & EL submitted after 24 Hours		Details of SPS operation
	(in kV)						End A	End B	End A	End B	End A	End B	End A	End B	
NERLDC/TL /01/01	400	Bongaigaon - Byrnihat	**NETC & MePTCL**	**POWERGRID & MePTCL**	**1/4/2017 11:48**	**1/4/2017 12:25**	DP, ZII, R-B	DP, ZI, R-E	Not applicable	Not Furnished	No	No	Yes	No	No SPS
	Root Cause	Due to absence of DR from Byrnihat End,Root cause could not be concluded.Bongaigaon PLCC counter increased as permissive trip received.Phase to Phase fault not involving ground with fault current up to 2 kA indicates likelyhood of touching of conductors in windy weather.													
	Remedial Measures	**POWERGRID & MePTCL are requested to furnish Patrolling report.Byrnihat end end DR to be submitted by MePTCL.**													
NERLDC/TL /01/02	+/- 800	+/- 800 Biswanath Charali-Agra II	**POWERGRID**	**POWERGRID**	**1/5/2017 15:32**	**1/5/2017 16:04**	Valve cooling problem		Not applicable		No	No	No	No	No SPS
	Root Cause	Due to problem in Valve cooling System at Biswanath Charali.													
	Remedial Measures	**Already rectified as informed by POWERGRID.**													
NERLDC/TL /01/03	400	Palatana - Silchar II	**NETC**	**OTPC & POWERGRID**	**1/6/2017 3:58**	**1/6/2017 5:12**	Over Voltage	Direct Trip	Not Furnished	Not applicable	No	No	Yes	Yes	No SPS
	Root Cause	Due to Over Voltage at Palatana end.Over voltage relay intitiated at voltage level 439.928 kV and operated after 4second delay as per DR records from Palatana end.													
	Remedial Measures	**80 MVAR bus reactor which is under long outage to be taken in to service at the earliest.**													
NERLDC/TL /01/04	132	Haflong(PG) - Jiribam	**POWERGRID**	**POWERGRID**	**1/6/2017 13:16**	**1/6/2017 13:54**	Tripped	DP, ZI, R-Y-E	Not Furnished	Not Furnished	No	No	Yes	No	No SPS
	Root Cause	R-Y fault with fault current up to .8 kA indicates vegetation type fault in the line.													
	Remedial Measures	**POWERGRID to furnish Patrolling report.Vegetation clearance to be done by POWERGRID and submit Jiribam end relay indication.**													

Event ID	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Line Owner	डाटा प्रदान करना है / Data to be furnished by	Date & Time of Event	Date & Time of restoration	Relay indications		Operation of Auto Reclose		DR & EL submitted within 24 Hours		DR & EL submitted after 24 Hours		Details of SPS operation
NERLDC/01/TR/01	400/133/33	Biswanath Chariali Transformer	**POWERGRID**	**POWERGRID**	**09/01/2017 7:27**	**09/01/2017 11:11**	OLTC oil surge relay operated in R-ph	Not Furnished	Not Furnished	Not applicable	No	No	No	No	No SPS
	Root Cause	OLTC oil surge relay maloperated													
	Remedial Measures	**Rectified as informed by POWERGRID.**													
NERLDC/01/TL/05	+/- 800	+/- 800 Biswanath Charali-Agra II	**POWERGRID**	**POWERGRID**	**09/01/2017 7:33**	**11/01/2017 9:11**	Auxiliary Supply failure due to ICT-I tripping followed by DG non-	Not Furnished	Not Furnished	Not Furnished	No	No	No	No	No SPS
	Root Cause	Due to Auxilliary supply failure followed by DG set non operation													
	Remedial Measures	**Issue already rectified as informed by POWERGRID.**													
NERLDC/01/TL/06	220	AGBPP - Mariani(PG)	**POWERGRID**	**NEEPCO& POWERGRID**	**11/01/2017 8:38**	**11/01/2017 15:55**	Direct Trip received	Over Voltage	Not Furnished	Not Furnished	No	No	Yes	No	No SPS
	Root Cause	Over Voltage protection maloperated at Mariani (PG)													
	Remedial Measures	**POWERGRID to check over voltage relay settings,Relay time synchronization and CVTs.**													
NERLDC/01/TL/07	400	Bongaigaon - New Siliguri IV	**ENICL**	**POWERGRID**	**18/01/2017 4:41**	**18/01/2017 21:34**	DP, ZII, Y-E	DP, ZII, Y-E	Not Furnished	Not Furnished	No	No	Yes	No	No SPS
	Root Cause	Y-E solid fault with fault Current 2.3 kA and around 70 degrees between Vy & Iy,Permissive trip received at Bongaigaon end.													
	Remedial Measures	**Referred to PCC meeting.**													

Event ID	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Line Owner	डाटा प्रदान करना है / Data to be furnished by	Date & Time of Event	Date & Time of restoration	Relay indications		Operation of Auto Reclose		DR & EL submitted within 24 Hours		DR & EL submitted after 24 Hours		Details of SPS operation
NERLDC/01/TL/08	400	Balipara - Bongaigaon I	**POWERGRID**	**POWERGRID**	**28/01/2017 18:06**	**28/01/2017 18:23**	DP, ZI, Y-E	DP, ZII, Y-E	Not Furnished	Not Furnished	Yes	Yes	No	No	No SPS
	Root Cause	Lightning fault with sudden dip in B phase voltage with around 80 degrees between Vb & Ib and fault current of around 5 KA at Bongaigaon.													
	Remedial Measures	**Vulnerable areas to lightning to be identified by POWERGRID, Checking of Tower footing resistances to be done, and if necessary, then Line LA are to be installed**													
NERLDC/01/TL/09	400	Balipara-Biswanath Charali III	**POWERGRID**	**POWERGRID**	**28/01/2017 18:06**	**28/01/2017 18:25**	DP, ZI, Y-E	DP, ZII, Y-E	Not Furnished	Not Furnished	No	No	No	No	No SPS
	Root Cause	As 400 kV Balipara-Biswanath Charali III line was connected through Tie CB of 400 kV Balipara - Bongaigaon I line because of S/D of Main CB .So 400 kV Balipara-Biswanath Charali III line tripped along with 400 kV Balipara - Bongaigaon I line.													
	Remedial Measures	**Information shall be passed on to NERLDC Whenever Dia is not complete.**													

List of Grid Disturbance

During January’17

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
A. ग्रिड डिसटरबेनसेज / Grid Disturbance															
1	132	Loktak - Ningthoukhong	MSPCL	**NHPC&MSPCL**	**1/4/2017 9:55**	Loktak	Over Current	Not Furnished	No	No	Loss of Load: 14	GD-I	1/4/2017 10:35	No SPS	0.02
						Ningthoukhong	No tripping	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	**Ningthoukhong area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Ningthoukhong line (132 kV Imphal(PG)-Ningthoukhong line ,132 kV kakching- Kongba line kept open for system constraint). At 9:55 Hr on 04.01.17 , 132 kV Loktak-Ningthoukhong line tripped. Due to tripping of this elements, Ningthoukhong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1169 MW , Antecedent Load : 1531 MW)**													
	Root Cause	**Referred to PCCM**													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
2	132	Balipara - Khupi	NEEPCO	**POWERGRID & NEEPCO**	**1/5/2017 14:48**	Balipara	DP, ZII, Y-E	Not Furnished	No	No	Loss of Load: 13	GD-I	1/5/2017 20:56	No SPS	0.17
						Khupi	LA Blast	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	**Khupi area of Arunachal Pradesh was connected with rest of NER Grid through 132 kV Balipara- Khupi line. At 14:48 Hr on 05.01.17, 132 kV Balipara- Khupi line tripped. Due to tripping of this element, Khupi area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1089 MW , Antecedent Load : 1401 MW)**													
	Root Cause	**Due to LA blast at Khupi**													
	Remedial Measures	**Already rectified as informed by NEEPCO.**													
3	132	Balipara - Khupi	NEEPCO	**POWERGRID & NEEPCO**	12/01/2017 12:00	Balipara	DP, ZII, Y-E	Not Furnished	No	No	Loss of Load: 14	GD-I	12/01/2017 22:57	No SPS	0.2
						Khupi	Y-Ph LA puncture	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	**Khupi area of Arunachal Pradesh was connected with rest of NER Grid through 132 kV Balipara- Khupi line. At 12:00 Hr on 12.01.17 ,132 kV Balipara- Khupi line tripped. Due to tripping of this element, Khupi area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation :1454 MW , Antecedent Load :1593 MW)**													
	Root Cause	**Due to LA blast at Khupi**													
	Remedial Measures	**Already rectified as informed by NEEPCO.**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
4	132	Rangia - Kahilipara	AEGCL	**AEGCL**	**13/01/2017 13:05**	Rangia	No tripping	Not Furnished	No	No	Loss of Load: 49	GD-I	13/01/2017 14:58	No SPS	0.1
						Kahilipara	DP, ZII, R-Y-E	Not Furnished	No	No					
	132	Sishugram – Kahilipara	AEGCL	**AEGCL**		Sishugram	No tripping	Not Furnished	No	No					
						Kahilipara	DP, ZII, R-Y-E	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	**Fire at 33kV feeder near IIT Guwahati led to tripping of Kahilipara-Sisugram and Kahilipara- Rangia line at 13:05 on 13/01/17 .As Rangia and Sisugram area are radially connected through these lines,power failure occurred in the Rangia and Sisugram area of Assam and Motonga area of Bhutan.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1392 MW , Antecedent Load : 1241 MW)**													
	Root Cause	**Referred to PCCM**													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
C. बस फॉल्ट / Bus fault															
5	132	Badarpur - Kumarghat	POWERGRID	**POWERGRID**	13/01/2017 16:02	Badarpur	DP, ZII, R-Y-E	Not Furnished	No	No	0	GD-I	13/01/2017 16:31	No SPS	0
						Kumarghat	Bus fault due to accidental closing of transfer Isolator for conducting NTAMC testing	Not Furnished	No	No					

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	132	Aizwal - Kumarghat	POWERGRID	**POWERGRID**	13/01/2017 16:02	Aizawl	DP, ZII, R-Y-B	Not Furnished	No	No			13/01/2017 16:36	No SPS	
						Kumarghat	Bus fault	Not Furnished	No	No					
	132	AGTPP - Kumarghat	POWERGRID	**NEEPCO & POWERGRID**	13/01/2017 16:02	AGTPP	DP, ZII, R-Y-E	Not Furnished	No	No			13/01/2017 16:39	PS 6 operate	
						Kumarghat	Bus fault	Not Furnished	No	No					
	132	PK Bari- Kumarghat	POWERGRID	**POWERGRID**	13/01/2017 16:02	PK Bari	Earth Fault	Not Furnished	No	No			13/01/2017 16:39	No SPS	
						Kumarghat	Bus fault	Not Furnished	No	No					
	Root Cause	**Bus fault occurred due to accidental closing of transfer isolator for conducting NTAMC Works which was Earthed**													
	Remedial Measures	**Bus faults are to be taken seriously and these type of faults due to human errors are to be avoided by all utilities.**													
A. ग्रिड डिसटरबेनसेज / Grid Disturbance															
6	132	Ranganadi - Lekhi	POWERGRID & DoP AP	**NEEPCO & DoP AP**	19/01/2017 9:45	Ranganadi	Earth Fault	Not Furnished	No	No	Loss of Load: 30	GD-I	19/01/2017 9:54	No SPS	0.1
						Lekhi	No tripping	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	**Lekhi area & Capital area of Arunachal Pradesh and Gohpur Area of Assam were connected with rest of NER Grid through 132 kV Ranganadi-Lekhi line. At 9:45 Hr on 19.01.17 ,132 kV Ranganadi-Lekhi line tripped. Due to tripping of this element, Lekhi area & Capital area & Gohpur area were separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1557 MW , Antecedent Load :1615 MW)**													
	Root Cause	**DC Earth fault at Ranganadi as informed by NEEPCO.**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	Remedial Measures	**Already rectified as informed by NEEPCO.**													
7	132	Ranganadi - Ziro	POWERGRID	**NEEPCO & POWERGRID**	19/01/2017 11:50	Ranganadi	Earth Fault	Not Furnished	No	No	Loss of Load: 7	GD-I	19/01/2017 12:09	No SPS	0.1
						Ziro	No tripping	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	**Ziro area of Arunachal Pradesh was connected with rest of NER Grid through 132 kV Ranganadi-Ziro line. At 11:50 Hr on 19.01.17 ,132 kV Ranganadi-Ziro line tripped. Due to tripping of this element, Ziro area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1425 MW , Antecedent Load :1478 MW)**													
	Root Cause	**DC Earth fault at Ranganadi as informed by NEEPCO.**													
	Remedial Measures	**Already rectified as informed by NEEPCO.**													
A. ग्रिड डिसटरबेनसेज / Grid Disturbance															
8	132	Balipara - Khupi	NEEPCO	**POWERGRID & NEEPCO**	26/01/2017 19:18	Khupi	Not Furnished	Not Furnished	No	No	Loss of Load: 15	GD-I	26/01/2017 19:58	No SPS	0.02
	FIR by the constituent	No													
	Brief Description of the Incident	**Khupi area of Arunachal Pradesh was connected with rest of NER Grid through 132 kV Balipara- Khupi line. At 19:18 Hr on 26.01.17,132 kV Balipara- Khupi line tripped. Due to tripping of this element, Khupi area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1820 MW , Antecedent Load :2221 MW)**													
	Root Cause	**Earth fault due to poor ground clearance at 53 Kms from Balipara as informed by NEEPCO.**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
9	**Remedial Measures**	**NEEPCO to rectify ground clearance problem at the earliest.**													
	132	Loktak - Rengpang	MSPCL	**NHPC & MSPCL**	27/01/2017 14:37	Loktak	DP, ZII, B-E	Not Furnished	No	No	Loss of Load: 1	GD-I	27/01/2017 14:50	No SPS	0.01
						Rengpang	Not Furnished	Not Furnished	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	**Rengpang area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Rengpang line. At 14:37 Hr on 27.01.17, 132 kV Loktak-Rengpang line tripped. Due to tripping of this element,Rengpang area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1231 MW , Antecedent Load :1464 MW)**													
	Root Cause	**Referred to PCCM**													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													

List of Unit Tripping

During January’17

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
B. यूनिट ट्रिपिंग / Unit tripping															
1	400	Palatana GTG I	OTPC	Palatana	**1/3/2017 3:01**	Palatana	Due to air filter Differential Pressure high	Not applicable	No	No	Loss of Generation: 120	GI-II	1/3/2017 10:06	No SPS	0.1
	400	Palatana STG I	OTPC	Palatana		Palatana	Due to air filter Differential Pressure high	Not applicable	No	No			1/3/2017 11:26	No SPS	
	Root Cause	**Not discussed,Referred to PCCM**													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
2	132	AGTPP U 4	NEEPCO	AGTPP	**1/3/2017 7:44**	AGTPP	Due to high air inlet diff pressure.	Not applicable	No	No	Loss of Generation: 118	GI-I	1/3/2017 12:03	No SPS	0.1
	Root Cause	**Due to high air inlet differential pressure**													
	Remedial Measures	**Already rectified as informed by NEEPCO.**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
3	400	Palatana GTG I	OTPC	Palatana	**1/3/2017 22:24**	Palatana	Air inlet filter DP very high	Not applicable	No	No	Loss of Generation: 130	GI-II	1/4/2017 15:16	No SPS	0.1
	400	Palatana STG I	OTPC	Palatana		Palatana	Inlet air filter DP very high	Not applicable	No	No			1/4/2017 19:20	No SPS	
	Root Cause	**Not discussed,Referred to PCCM**													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
4	400	Palatana STG I	OTPC	Palatana	**1/4/2017 20:30**	Palatana	Air inlet filter DP very high	Not applicable	No	No	Loss of Generation: 78	GI-II	1/10/2017 5:03	No SPS	0.02
	400	Palatana GTG I	OTPC	Palatana		Palatana	Air inlet filter DP very high	Not applicable	No	No			1/5/2017 21:49	No SPS	
	Root Cause	**Not discussed,Referred to PCCM**													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
5	400	Palatana GTG II	OTPC	Palatana	**1/8/2017 20:30**	Palatana	High Frequency	Not applicable	Yes	No	Loss of Generation: 294	GI-II	1/8/2017 23:52	No SPS	0.3
	400	Palatana STG II	OTPC	Palatana			High Frequency	Not applicable	Yes	No			1/9/2017 0:50	No SPS	
	Root Cause	**Not discussed,Referred to PCCM**													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
6	400	Palatana GTG II	OTPC	**Palatana**	09/01/2017 23:27	Palatana	Air inlet filter DP very high	Not applicable	No	No	Loss of Generation:145	GI-II	10/01/2017 10:00	SPS not operated	0.1
	400	Palatana STG II	OTPC	**Palatana**		Palatana	Air inlet filter DP very high	Not applicable	No	No			10/01/2017 11:40	SPS not operated	
	Root Cause	**Not discussed,Referred to PCCM**													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
7	400	Palatana GTG II	OTPC	**Palatana**	10/01/2017 23:46	Palatana	Air inlet filter DP very high	Not applicable	No	No	Loss of Generation: 483	GI-II	11/01/2017 21:11	No SPS	0.4
	400	Palatana STG II	OTPC	**Palatana**		Palatana	Air inlet filter DP very high	Not applicable	No	No			12/01/2017 0:21	No SPS	
	Root Cause	**Not discussed,Referred to PCCM**													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
8	400	Palatana STG II	OTPC	**Palatana**	13/01/2017 9:46	Palatana	Condenser pressure high	Not applicable	Yes	No	Loss of Generation: 495	GI-II	13/01/2017 11:55	No SPS	0.7
	400	Palatana GTG II	OTPC	**Palatana**	13/01/2017 9:53	Palatana	Condenser pressure high	Not applicable	Yes	No			13/01/2017 9:55	No SPS	
	Root Cause	**Not discussed,Referred to PCCM**													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
9	400	Palatana GTG II	OTPC	**Palatana**	16/01/2017 2:59	Palatana	filter Differential Pressure high	Not applicable	Yes	No	Loss of Generation:450	GI-II	18/01/2017 13:41	No SPS	0.2
	400	Palatana STG II	OTPC	**Palatana**	16/01/2017 3:01	Palatana	filter Differential Pressure high	Not applicable	Yes	No			18/01/2017 18:53	No SPS	

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	Root Cause	**Not discussed,Referred to PCCM**													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
10	400	BgTPP U 1	NTPC	**BgTPP**	26/01/2017 16:39	BgTPP	Feed water pump malfunction and boiler tube leakage	Not applicable	No	No	160	GI-I	Under Continous Shutdown	No SPS	0.1
	Root Cause	**Not discussed,Referred to PCCM**													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
11	400	Palatana GTG I	OTPC	**Palatana**	30/Jan/2017 16:51	Palatana	GC tripping	Not applicable	No	No	Generation Loss: 178 MW	GI-II	30/01/2017 20:16	No SPS	0.154
	400	Palatana STG I	OTPC	**Palatana**	30/Jan/2017 16:51	Palatana	GC tripping	Not applicable	No	No			30/01/2017 21:13	No SPS	
	Root Cause	**Not discussed,Referred to PCCM**													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													

List of Element Tripping during February'17

पूर्वोत्तर क्षेत्र में 01.02.17 से 28.02.17 तक की घटनाये / Events in NER Grid from 01.02.17 to 28.02.17																
Event ID	**Voltage Level (in kV)**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Line Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**Date & Time of Event**	**Date & Time of restoration**	**Relay indications**		**Operation of Auto Reclose**		**DR & EL submitted within 24 Hours**		**DR & EL submitted after 24 Hours**		**Details of SPS operation**
							End A	**End B**	**End A**	**End B**	**End A**	**End B**	**End A**	**End B**	
NERLDC/02 /TL/01	132	Loktak - Imphal (PG)	**POWERGRID**	**NHPC & POWERGRID**	**08/02/2017 15:31**	**08/02/2017 16:08**	DP, ZI, B-E,14.86 Kms	No tripping	Not Furnished	Not applicable	Yes	No	No	No	No SPS
	Root Cause	High resistive fault due to vegetation as angle between Vb & Ib is around 3 degrees.													
	Remedial Measures	**Vegetation clearance to be done by POWERGRID and patrolling report to be submitted.**													
NERLDC/02 /TR/01	132/66	Udaipur - Transformer	**TSECL**	**TSECL**	**06/02/2017 10:16**	**06/02/2017 13:48**	Earth Fault	Earth Fault	Not applicable	Not applicable	No	No	No	No	No SPS
	Root Cause	Not discussed,Reffered to PCCM													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
NERLDC/02 /TL/02	800	Biswanath Charali - Agra II	**POWERGRID**	**POWERGRID**	**2/13/2017 11:42**	**2/13/2017 13:14**	Fault at Other end	Neutral Bus differential protection operated.	Not applicable	Not applicable	No	No	No	No	No SPS
	Root Cause	Fault at Agra End.													
	Remedial Measures	**Reffered to NLDC.**													
NERLDC/02 /TL/03	800	Biswanath Charali - Agra II	**POWERGRID**	**POWERGRID**	**2/14/2017 0:37**	**2/14/2017 17:20**	Line fault, Distance:1540 km from BNC	Line fault, Distance: 213.2 km from Agra	Not Furnished	Not Furnished	No	No	No	No	No SPS
	Root Cause	Fault at Agra End.													

पूर्वोत्तर क्षेत्र में 01.02.17 से 28.02.17 तक की घटनाये / Events in NER Grid from 01.02.17 to 28.02.17																
Event ID	**Voltage Level (in kV)**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Line Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**Date & Time of Event**	**Date & Time of restoration**	**Relay indications**		**Operation of Auto Reclose**		**DR & EL submitted within 24 Hours**		**DR & EL submitted after 24 Hours**		**Details of SPS operation**
							End A	**End B**	**End A**	**End B**	**End A**	**End B**	**End A**	**End B**	
	Remedial Measures	**Reffered to NLDC.**													
NERLDC/02 /TL/04	132	Jiribam(PG) - Loktak	**POWERGRID**	**POWERGRID / NHPC**	**2/14/2017 14:22**	**2/14/2017 14:36**	DP, ZI, R-Y-E, Distance: 3.6 km	DP, ZII, R-Y-E, Distance: 75.23	Not applicable	Not applicable	No	No	Yes	Yes	No SPS
	Root Cause	R-Y Fault not involving ground in the line with fault current up to 1.7 kA at Loktak End.Auto reclose attempted at Both ends but due to persisting fault,all the phases tripped.													
	Remedial Measures	**Vegetation clearance to be done by POWERGRID and patrolling report to be submitted.**													
NERLDC/02 /TL/05	400	Balipara - Bongaigaon III	**POWERGRID**	**POWERGRID**	**2/17/2017 15:27**	**2/17/2017 17:18**	Direct Trip received	Earth Fault, Y-ph	Not applicable	Not applicable	No	No	Yes	Yes	No SPS
	Root Cause	High resistive Y-E Fault in Line with fault current around 3 kA and angle between Vy and Iy around 20 degrees.													
	Remedial Measures	**Vegetation clearance to be done by POWERGRID and patrolling report to be submitted.**													
NERLDC/02 /TL/06	800	Biswanath Charali - Agra I	**POWERGRID**	**POWERGRID**	**2/18/2017 14:12**	**2/18/2017 14:49**	Not Furnished	Valve cooling problem	Not applicable	Not applicable	No	No	No	No	No SPS
	Root Cause	Due to problem in valve cooling system.													
	Remedial Measures	**Reffered to NLDC.**													
NERLDC/TL /17/02/07	400	Azara - Silchar	**NETC/AEGCL**	**AEGCL & POWERGRID**	**20/02/2017 12:47**	**20/02/2017 13:37**	No tripping	Direct Trip received	Not applicable	Not applicable	No	No	No	Yes	No SPS

पूर्वोत्तर क्षेत्र में 01.02.17 से 28.02.17 तक की घटनाये / Events in NER Grid from 01.02.17 to 28.02.17																
Event ID	**Voltage Level (in kV)**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Line Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**Date & Time of Event**	**Date & Time of restoration**	**Relay indications**		**Operation of Auto Reclose**		**DR & EL submitted within 24 Hours**		**DR & EL submitted after 24 Hours**		**Details of SPS operation**
							End A	**End B**	**End A**	**End B**	**End A**	**End B**	**End A**	**End B**	
	Root Cause	Root cause could not be concluded due to unavailabilty of DR from Azara.From DR,DT received at Silchar.													
	Remedial Measures	**AEGCL to furnish DR output of Azara end as well as detailed report.**													
NERLDC/TL /17/02/08	220	Samaguri - Sonabil I	**AEGCL**	**AEGCL**	**20/02/2017 17:21**	**21/02/2017 15:34**	DP Z1, RYB, Distance 14.5 Km	DP Z1, RYB, Distance 17.9 Km	Not operated	Not operated	No	No	No	No	No SPS
	Root Cause	Referred to PCCM													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
NERLDC/TL /17/02/09	132	P K Bari - Silchar II	**POWERGRID**	**POWERGRID & TSECL**	**20/02/2017 21:14**	**20/02/2017 21:42**	DP Z1, B-E, Distance 83 Km	DP Z1, B-E, Distance 86 Km	Not operated	Not operated	No	No	No	No	No SPS
	Root Cause	Fault due to vegetation in the line.													
	Remedial Measures	**Vegetation clearance to be done by POWERGRID and patrolling report to be submitted.**													
NERLDC/TL /17/02/10	400	Balipara - Bongaigaon II	**POWERGRID**	**POWERGRID**	**21/02/2017 0:23**	**21/02/2017 0:31**	Line Isolator opened	Hand Tripped	Not applicable	Not applicable	No	No	No	No	No SPS
	Root Cause	Line isolator mal operated at Balipara due to DC earth fault.													
	Remedial Measures	**DC earth fault could not be found as informed by POWERGRID.POWERGRID to rectify the DC earth fault at Balipara Substation at the earliest.**													
NERLDC/TL /17/02/11	400	Azara - Silchar	**NETC/AEGCL**	**AEGCL & POWERGRID**	**21/02/2017 21:44**	**21/02/2017 22:13**	DP Z1, Y-E, Distance 46.8 Km	DP Z1, Y-E, Distance 191.6 Km	Not operated	Not operated	No	No	No	Yes	No SPS
	Root Cause	Y-E Fault in the line with fault current of around 1.4 kA at Silchar and angle between Vy and Iy around 74 degrees indicate Lightning fault.													
	Remedial Measures	**Vulnerable locations to lightning to be identified by POWERGRID, Checking of Tower footing resistances to be done, and if necessary, then Line LA are to be installed**													

पूर्वोत्तर क्षेत्र में 01.02.17 से 28.02.17 तक की घटनाये / Events in NER Grid from 01.02.17 to 28.02.17																
Event ID	**Voltage Level (in kV)**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Line Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**Date & Time of Event**	**Date & Time of restoration**	**Relay indications**		**Operation of Auto Reclose**		**DR & EL submitted within 24 Hours**		**DR & EL submitted after 24 Hours**		**Details of SPS operation**
							End A	**End B**	**End A**	**End B**	**End A**	**End B**	**End A**	**End B**	
NERLDC/TL /17/02/12	132	Badarpur - Khliehriat (PG)	**POWERGRID**	**POWERGRID**	**21/02/2017 17:30**	**21/02/2017 17:47**	DP, ZI, Y-E	DP, ZII, Y-E	Not operated	Not operated	Yes	Yes	No	No	No SPS
	Root Cause	From DR,Y-E fault with fault current up to 4.5 kA and sudden dip in voltage at Badarpur & angle between Vy & Iy around 65 degrees indicate the chances of lightning fault.													
	Remedial Measures	**Vulnerable locations to lightning to be identified by POWERGRID, Checking of Tower footing resistances to be done, and if necessary, then Line LA are to be installed**													
NERLDC/TL /17/02/13	132	Khliehriat (PG) - Khliehriat (ME) I	**POWERGRID**	**POWERGRID/ MePTCL**	**21/02/2017 23:41**	**21/02/2017 23:59**	DP Z1, Earth Fault	No tripping	Not operated	Not operated	No	No	No	No	No SPS
	132	Khliehriat (PG) - Khliehriat (ME) II	**MePTCL**	**POWERGRID/ MePTCL**	**21/02/2017 23:41**	**21/02/2017 23:59**	DP Z1, Earth Fault	No tripping	Not operated	Not operated	No	No	No	No	No SPS
	Root Cause	Due to lightning Fault in the 132kV Khliehriat- Leshka line-I which caused extended Z1 tripping from Khliehriat-PG end.													
	Remedial Measures	**Numerical Distance relays are installed in all feeders from Khliehriat(ME) except 132 kV Khliehriat (PG) - Khliehriat (ME) II line as informed by MePTCL.Zone-I reacch of DPR at Khliehriat(PG) to be reviewed by POWERGRID after installation of Numerical relay in Khliehriat(ME) substation.**													
NERLDC/TL /17/02/14	400	Balipara - Bongaigaon IV	**POWERGRID**	**POWERGRID**	**22/02/2017 12:45**	**22/02/2017 18:04**	Earth Fault	DP, ZII, R-E	Not applicable	Not applicable	No	No	Yes	Yes	No SPS
	Root Cause	R-E high resistive fault with fault current up to 1.6 kA at Balipara with angle 35 degrees between Vr and Ir.Zone 3 picked up at Bongaigaon.													
	Remedial Measures	**Vegetation clearance to be done by POWERGRID and patrolling report to be submitted.**													
NERLDC/TL /17/02/15	800	Biswanath Charali - Agra II	**POWERGRID**	**POWERGRID**	**22/02/2017 15:16**	**22/02/2017 15:41**	Not Furnished	Pole 3 testing	Not applicable	Not applicable	No	No	No	No	No SPS
	Root Cause	Tripped during testing of Pole-3													
	Remedial Measures	**Reffered to NLDC**													

पूर्वोत्तर क्षेत्र में 01.02.17 से 28.02.17 तक की घटनाये / Events in NER Grid from 01.02.17 to 28.02.17																
Event ID	**Voltage Level (in kV)**	**ट्रिपिंग तत्वका नाम / Name of tripping element**	**मालिक / Line Owner**	**डाटा प्रदान करना है / Data to be furnished by**	**Date & Time of Event**	**Date & Time of restoration**	**Relay indications**		**Operation of Auto Reclose**		**DR & EL submitted within 24 Hours**		**DR & EL submitted after 24 Hours**		**Details of SPS operation**
							End A	**End B**	**End A**	**End B**	**End A**	**End B**	**End A**	**End B**	
NERLDC/TL /17/02/16	400	Balipara - Bongaigaon II	**POWERGRID**	**POWERGRID**	**22/02/2017 17:50**	**22/02/2017 19:24**	DP, ZI, R-E	DP, Z2, R-Ph, 266 KM	Not operated	Not operated	No	No	No	No	No SPS
	Root Cause	R-E high resistive fault with fault current up to 2.8 kA at Balipara with angle 20 degrees between Vr and Ir.Auto reclause attempted but not sucessful due to persisting fault.													
	Remedial Measures	**Vegetation clearance to be done by POWERGRID and patrolling report to be submitted.**													
NERLDC/TL /17/02/17	132	Khandong - Umrangso	**POWERGRID & AEGCL**	**AEGCL/NEEPCO**	**24/02/2017 11:41**	**24/02/2017 12:02**	DP, R-Y-B, Distance- 0.713 KM	No tripping	Not operated	Not operated	No	No	Yes	No	No SPS
	Root Cause	From DR of Khandong End, distance protection operated in Zone-1.But there was no fault current recorded in DR.													
	Remedial Measures	**Patrolling report to be submitted by POWERGRID & AEGCL.**													
NERLDC/TL /17/02/18	132	Dimapur - Imphal	**TSECL**	**TSECL**	**24/02/2017 12:15**	**24/02/2017 15:27**	DP, ZI, R-Y-E, Distance- 65.6 km	DP, ZI, R-Y-E, Distance- 89.13 km	Not operated	Not operated	No	No	No	No	No SPS
	Root Cause	Fault in the line.Root cause could not be concluded due to unavailabilty DR outputs.Dat files are missing in DR output from Dimapur end.													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.NEEPCO & AEGCL to furnish DR outputs.**													
NERLDC/TL /17/02/19	132	Khandong - Umrangso	**POWERGRID & AEGCL**	**NEEPCO/AEGCL**	**25/02/2017 13:19**	**26/02/2017 13:42**	Earth Fault	Earth Fault	Not operated	Not operated	No	No	No	No	No SPS
	Root Cause	Fault in the line.Solid R-E fault with fault current of around 1.2 kA.													
	Remedial Measures	**Patrolling report to be submitted by POWERGRID & AEGCL.**													
NERLDC/TL /17/02/20	800	Biswanath Charali - Agra I	**POWERGRID**	**POWERGRID**	**28/02/2017 12:41**	**01/03/2017 11:07**	Line fault, Distance	Line fault, Distance	Not applicable	Not applicable	No	No	No	No	No SPS
	Root Cause	Due to fault in the line.													
	Remedial Measures	**Reffered to NLDC**													

List of Grid Disturbance

During February’17

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
A. ग्रिड डिसटरबेनसेज / Grid Disturbance															
1	132	Dimapur - Imphal	POWERGRID	POWERGRID	03/Feb/2017 10:05	Dimapur	DP, ZIII, R-Y-B, 210 km.	Not Furnished	No	No	33.3	GD-I	03/02/2017 10:54	No SPS	0.10
						Imphal	No tripping	Not Furnished	No	No					
	132	Loktak - Imphal (PG)	POWERGRID	NHPC & POWERGRID	03/Feb/2017 10:05	Loktak	DP, ZII, R-B-E	Not Furnished	No	No			03/02/2017 11:22	No SPS	
						Imphal (PG)	No tripping	Not Furnished	No	No					
	132	Silchar - Imphal (PG) I	POWERGRID	POWERGRID	03/Feb/2017 10:05	Silchar	DP, ZIII, R-E, 365.7 km	Not Furnished	No	No			03/02/2017 12:33	No SPS	
						Imphal (PG)	No tripping	Not Furnished	No	No					
	132	Silchar - Imphal (PG) II	POWERGRID	POWERGRID	03/Feb/2017 10:05	Silchar	DP, ZIII, R-E, 451.3 km	Not Furnished	No	No			03/02/2017 11:26	No SPS	
						Imphal(PG)	No tripping	Not Furnished	No	No					
	132	Imphal (PG) - Imphal (MA) I	POWERGRID	POWERGRID & MSPCL	03/Feb/2017 10:05	Imphal (PG)	No tripping	Not Furnished	Yes	No			03/02/2017 11:44	No SPS	
						Imphal (MA)	Not Furnished	Not Furnished	Yes	No					
	132	Imphal (PG) - Imphal (MA) II	POWERGRID/MSPCL	POWERGRID & MSPCL	03/Feb/2017 10:05	Imphal (PG)	Earth Fault	Not Furnished	Yes	No			03/02/2017 12:49	No SPS	
						Imphal (MA)	Not Furnished	Not Furnished	Yes	No					

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.इ.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	FIR by the constituent	No													
	Brief Description of the Incident	**Capital area & Karong area of Manipur were connected with rest of NER Grid through 132 kV Imphal-Imphal I & II lines (132 kV Kakching-Kongba line & 132 kV Karong-Kohima line kept open for system requirement). At 10:05 Hr on 03-02-2017, 132 kV Imphal-Imphal I & II lines tripped. Due to tripping of these elements, Capital area & Karong area were separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation :1457 MW , Antecedent Load :1606 MW)**													
	Root Cause	Due to delayed clearance of fault in the manipur system due to 33 kV Cable & Bus PT blast led to tripping of all feeders of Imphal(PG) from remote end.Due to absence of Impedence relay at Imphal(PG) for Imphal(MA) feeders led to Zone-3 fault clearance.													
	Remedial Measures	**Numerical Distance relays to be installed at Imphal(PG) by POWERGRID.Relay settings of manipur downstream to be cordinated with Imphal(PG) by MSPCL&POWERGRID.**													
2	132	Loktak - Ningthoukhong	**MSPCL**	**NHPC & MSPCL**	**08/02/2017 15:30**	**Loktak**	DP, Z-1, 14.86KM	No	No	No	Loss of Load:17	GD-I	**08/02/2017 16:20**	No SPS	0.022
						Ningthoukhong	DP , Z-1	No	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	**Ningthoukhong area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Ningthoukhong line (132 kV kakching-Kongba line & 132 kV Imphal(PG)-Ningthoukhong line kept open for system constraint). At 15:30 Hr on 08/02/2017, 132 kV Loktak-Ningthoukhong line tripped. Due to tripping of these elements, Ningthoukhong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation :1323.4 MW , Antecedent Load :1431.1 MW)**													
	Root Cause	Not discussed,Reffered to PCCM													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
3	132	Loktak - Ningthoukhong	**MSPCL**	**NHPC & MSPCL**	**10/02/2017 12:38**	**Loktak**	DP, Y-B Ph, O/C and E/F	No	No	No	Loss of Load:10	GD-I	**10/02/2017 13:05**	No SPS	0.008
						Ningthoukhong	Not Furnished	No	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	**Ningthoukhong area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Ningthoukhong line (132 kV kakching-Kongba line & 132 kV Imphal(PG)-Ningthoukhong line kept open for system constraint). At 12:38 Hr on 10/02/2017, 132 kV Loktak-Ningthoukhong line tripped. Due to tripping of these elements, Ningthoukhong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation :1384MW , Antecedent Load :1420 MW)**													
	Root Cause	Not discussed,Reffered to PCCM													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
4	132	Dimapur (PG) - Kohima	**POWERGRID & DoP Nagaland**	**POWERGRID & DoP,Nagaland**	**11/02/2017 13:15**	**Dimapur (PG)**	Earth Fault	No	No	No	Loss of Load:13	GD-I	**11/02/2017 13:34**	No SPS	0.007
						Kohima	Earth Fault	No	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	**Capital area of Nagaland was connected with rest of NER Grid through 132 kV Dimapur(PG)-Kohima line (132 kV Kohima-Karong line & 66 kV Tuensang-Likimro line kept open for system requirement). At 13:15 Hr on 11/02/2017 ,132 kV Dimapur(PG)-Kohima line tripped. Due to tripping of this element, Capital area was separated from rest of NER Grid and subsequently collapsed due to no source in this area**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation :1349 MW , Antecedent Load :1366 MW)**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
5	132	Loktak - Ningthoukhong	**MSPCL**	**NHPC & MSPCL**	**12/02/2017 15:05**	**Loktak**	Over current in A-ph	No	No	No	Loss of Load:15	GD-I	**12/02/2017 15:33**	No SPS	0.018
						Ningthoukhong	Not Furnished	No	No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	**Ningthoukhong area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Ningthoukhong line (132 kV kakching-Kongba line & 132 kV Imphal(PG)-Ningthoukhong line kept open for system constraint). At 15:05 Hr on 12/02/2017, 132 kV Imphal(PG)-Ningthoukhong line tripped. Due to tripping of these elements, Ningthoukhong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation :1243 MW , Antecedent Load :1291 MW)**													
	Root Cause	Not discussed,Reffered to PCCM													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
	Root Cause	Due to downstream vegetation fault.													
	Remedial Measures	**Vegetation clearance to be done by DoP Nagaland and status to be reported to NERPC.**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
6	220	Mariani(PG) - Misa	**POWERGRID**	**POWERGRID**	**22/02/2017 5:00**	Mariani(PG)	Over Voltage	Not applicable	No	No	**Loss of Load: 0 & Generation Loss:0**	**GD-I**	**22/02/2017 5:35**	No SPS	-
						Misa	Direct Trip received								
	220	Mariani(PG) - Mokokchung (PG) I	**POWERGRID**	**POWERGRID**	**22/02/2017 5:00**	Mariani(PG)	Over Voltage						**22/02/2017 5:43**	No SPS	
						Mokokchung (PG)	Direct Trip received								
	220	AGBPP - Mariani(PG)	**POWERGRID**	**NEEPCO & POWERGRID**	**22/02/2017 5:00**	AGBPP	Direct Trip received						**22/02/2017 6:08**	No SPS	
						Mariani(PG)	Over Voltage								
	FIR by the constituent	No													
	Brief Description of the Incident	**Mariani(PG) substation was connected with rest of NER Grid through 220 kV Mariani(PG) - Misa, 220 kV Mariani(PG) - Mokokchung (PG) I & 220 kV AGBPP - Mariani(PG) lines (Mariani(PG) - Mokokchung (PG) II line kept open for system constraint from 21:06 Hrs of 19.02.17). At 05:00 Hr on 22/02/17, 220 kV Mariani(PG) - Misa, 220 kV Mariani(PG) - Mokokchung (PG) I & 220 kV AGBPP - Mariani(PG) lines tripped. Due to tripping of these elements, Mariani(PG) substation was blacked out.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation 1413 : MW , Antecedent Load : 1074 MW)**													
	Root Cause	Due to maloperation of Over Volatage Relay at Mariani(PG).													
	Remedial Measures	**POWERGRID to check over voltage relay settings,Relay time synchronization and CVTs.**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
7	220	Mariani(PG) - Misa	**POWERGRID**	**POWERGRID**	**22/02/2017 5:46**	Mariani(PG)	Over Voltage	Not applicable	No	No	**Loss of Load: 0 & Generation Loss:0**	**GD-I**	**22/02/2017 5:51**	No SPS	-
						Misa	Direct Trip received								
	220	Mariani(PG) - Mokokchung (PG) I	**POWERGRID**	**POWERGRID**	**22/02/2017 5:46**	Mariani(PG)	Over Voltage						**Not Yet Restored**	No SPS	
						Mokokchung (PG)	Direct Trip received								
	FIR by the constituent	No													
	Brief Description of the Incident	**Mariani(PG) substation was connected with rest of NER Grid through 220 kV Mariani(PG) - Misa, 220 kV Mariani(PG) - Mokokchung (PG) I (220 kV AGBPP - Mariani(PG) was not restored after tripping at 22nd Feb 2017 at 05:00 Hr and Mariani(PG) - Mokokchung (PG) II line kept open for system constraint from 21:06 Hrs of 19.02.17). At 05:46 Hr on 22/02/17 , 220 kV Mariani(PG) - Misa & 220 kV Mariani(PG) - Mokokchung (PG) I lines tripped. Due to tripping of these elements, Mariani(PG) substation was blacked out.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation :1397 MW , Antecedent Load : 1150 MW)**													
	Root Cause	Due to maloperation of Over Volatage Relay at Mariani(PG).													
	Remedial Measures	**POWERGRID to check over voltage relay settings,Relay time synchronization and CVTs.**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
8	132	Khliehriat (PG) - Khliehriat (ME) I	**POWERGRID**	**POWERGRID/ MePTCL**	**22/02/2017 20:40**	Khliehriat(PG)	DP, ZI, R-B-E, Distance- 59.9 km	Not applicable	No	No	**Generation Loss:84**	**GD-I**	**22/02/2017 23:50**	No SPS	0.04
						Khliehriat	No tripping								
	132	Khliehriat (PG) - Khliehriat (ME) II	**MePTCL**	**MePTCL**	**22/02/2017 20:40**	Khliehriat(PG)	DP, ZI, Y-B-E, Distance- 33.85 km						**23/02/2017 0:17**	No SPS	
						Khliehriat	No tripping								
	132	Khliehriat- MLHEP-I	**MePTCL**	**MePTCL**	**22/02/2017 20:44**	Khliehriat	DP, ZI, R-Y-B						**22/02/2017 20:56**	No SPS	
						MLHEP	DP, ZI, R-B-E								
	132	Khliehriat- MLHEP-II	**MePTCL**	**MePTCL**	**22/02/2017 20:44**	Khliehriat	DP, ZI, R-Y-B						**22/02/2017 20:58**	No SPS	
						MLHEP	DP, ZI, R-B-E								
	132	MLHEP UI	**MePGCL**	**MePGCL**	**22/02/2017 20:44**	MLHEP	Not Furnished						**22/02/2017 21:12**	No SPS	
	132	MLHEP UIII	**MePGCL**	**MePGCL**	**22/02/2017 20:44**	MLHEP	Not Furnished						**22/02/2017 21:25**	No SPS	
	FIR by the constituent	Yes													
	Brief Description of the Incident	**MLHEP Power Station was connected with rest of NER Grid through 132 kV Khliehriat- MLHEP I & II lines. At 20:44 Hr on, 22/02/17 132 kV Khliehriat- MLHEP I & II lines tripped. Due to evacuation problem, MLHEP was blacked out.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1721 MW , Antecedent Load : 1897 MW)**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.इ.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	Root Cause	Due to lightning Fault in the 132kV Khliehriat- Leshka line-I&II lines which caused extended Z1 tripping from Khliehriat-PG end.													
	Remedial Measures	**Numerical Distance relays are installed in all feeders from Khliehriat(ME) except 132 kV Khliehriat (PG) - Khliehriat (ME) II line as informed by MePTCL.Zone-I reacch of DPR at Khliehriat(PG) to be reviewed by POWERGRID after installation of Numerical relay in Khliehriat(ME) substation.**													
9	132	Khliehriat (PG) - Khliehriat (ME) I	**POWERGRID**	**POWERGRID/ MePTCL**	**22/02/2017 23:34**	Khliehriat(PG)	DP, ZI, Y-B-E, Distance- 62.94 km						**22/02/2017 23:50**	No SPS	0.08
						Khliehriat(ME)	CB not opened								
	132	Khliehriat (PG) - Khliehriat (ME) II	**MePTCL**	**MePTCL**	**22/02/2017 23:34**	Khliehriat(PG)	DP, ZI, Y-B-E, Distance- 31.92 km						**23/02/2017 0:17**	No SPS	
						Khliehriat(ME)	CB not opened								
	132	Khliehriat- MLHEP-I	**MePTCL**	**MePTCL**	**22/02/2017 23:34**	Khliehriat	Earth Fault, Y,B,N	Not applicable	No	No	**Loss of Load: 0 & Generation Loss:84**	**GD-I**	**22/02/2017 23:44**	No SPS	
						MLHEP	DP, ZI, Y-B-E								
	132	Khliehriat- MLHEP-II	**MePTCL**	**MePTCL**	**22/02/2017 23:34**	Khliehriat	DP, ZI, R-Y-B						**22/02/2017 23:44**	No SPS	
						MLHEP	DP, ZI, R-B-E								
	132	MLHEP UI	**MePGCL**	**MePGCL**	**22/02/2017 23:34**	MLHEP	Not Furnished						**23/02/2017 0:34**	No SPS	
	132	MLHEP UIII	**MePGCL**	**MePGCL**	**22/02/2017 23:34**	MLHEP	Not Furnished						**22/02/2017 23:46**	No SPS	
	FIR by the constituent	Yes													
	Brief Description of the Incident	**MLHEP Power Station was connected with rest of NER Grid through 132 kV Khliehriat- MLHEP I & II lines. At 23:34 Hr on, 22/02/17 132 kV Khliehriat- MLHEP I & II lines tripped. Due to evacuation problem, MLHEP was blacked out.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : MW 1613 , Antecedent Load : 1318 MW)**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	Root Cause	Due to lightning Fault in the 132kV Khliehriat- Leshka line-I&II lines which caused extended Z1 tripping from Khliehriat-PG end.													
	Remedial Measures	**Numerical Distance relays are installed in all feeders from Khliehriat(ME) except 132 kV Khliehriat (PG) - Khliehriat (ME) II line as informed by MePTCL.Zone-I reacch of DPR at Khliehriat(PG) to be reviewed by POWERGRID after installation of Numerical relay in Khliehriat(ME) substation.**													
10	132	Badarpur - Kolasib	**POWERGRID**	**POWERGRID & P&ED, Mizoram**	**24/02/2017 7:57**	Badarpur	DP, ZII, R-Y-B	Not applicable	No	No	**Loss of Load: 20**	GD-I	**24/02/2017 9:16**	No SPS	0.03
						Kolasib	Not Furnished								
	132	Aizwal - Kolasib	**POWERGRID**	**POWERGRID & P&ED, Mizoram**	**24/02/2017 7:57**	Aizwal	DP, ZII, R-Y-B						**24/02/2017 9:39**	No SPS	
						Kolasib	Not Furnished								
	FIR by the constituent	No													
	Brief Description of the Incident	**Kolasib area of Mizoram was connected with rest of NER Grid through 132 kV Kolasib-Badarpur line & 132 kV Kolasib-Aizwal line. At 07:57 Hr on 24/02/17, 132 kV Kolasib-Badarpur line & 132 kV Kolasib-Aizwal line tripped. Due to tripping of these elements, Kolasib area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1535 MW , Antecedent Load : 1520 MW)**													
	Root Cause	Due to blasting of Y-PH CT of 132 kV Kolasib-Bairabi line at Kolasib above mentioned lines tripped.													
	Remedial Measures	**Proper maintenance of equipments to be done by MSPCL.Periodic testings to be done by MSPCL.**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
11	132	Loktak - Ningthoukhong	**MSPCL**	**NHPC & MSPCL**	**24/02/2017 11:50**	**Loktak**	DP, Z-2, R-Y-B, Distance- 20 KM	Not operated	No	No	**Loss of Load:16**	GD-I	**24/02/2017 12:40**	No SPS	0.010
						Ningthoukhong	Not Furnished								
	FIR by the constituent	No													
	Brief Description of the Incident	**Ningthoukhong area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Ningthoukhong line (132 kV Kakching-Kongba line & 132 kV Imphal(PG)-Ningthoukhong line kept open for system constraint). At 11:50 Hr on 24/02/2017, 132 kV Loktak-Ningthoukhong line tripped. Due to tripping of these elements, Ningthoukhong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation :1368MW , Antecedent Load :1365 MW)**													
	Root Cause	Not discussed,Reffered to PCCM													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
12	132	AGTPP - Kumarghat	**POWERGRID**	**NEEPCO & POWERGRID**	**25/02/2017 10:21**	AGTPP	Over current	Not applicable	No	No	**Loss of Load: 121 & Generation Loss:120 and Bangladesh Load loss :78**	GD-I	**25/02/2017 10:51**	No SPS	0.08
						Kumarghat	No tripping								
	132	Agartala - AGTPP I	**POWERGRID**	**NEEPCO & TSECL**	**25/02/2017 10:21**	Agartala	Over current and Earth fault	Not applicable	No	No			**25/02/2017 11:01**	No SPS	
						AGTPP I	Not Furnished								
	132	Agartala - AGTPP II	**POWERGRID**	**NEEPCO & TSECL**	**25/02/2017 10:21**	Agartala	Over current and Earth fault	Not applicable	No	No			**25/02/2017 11:06**	No SPS	
						AGTPP II	Not Furnished								

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	132	Kamalpur-Dhalabil	**TSECL**	**TSECL**	**25/02/2017 10:21**	Kamalpur	Not Furnished	Not applicable	No	No	**Loss of Load: 121 & Generation Loss:120 and Bangladesh Load loss :78**		**25/02/2017 10:45**	No SPS	
						Dhalabil	Earth Fault								
	132	Rokhia-Monarchak	**TSECL**	**TSECL**	**25/02/2017 10:21**	Rokhi	Over current	Not applicable	No	No			**25/02/2017 11:28**	No SPS	
						Dhalabil	Not Furnished								
	132	AGTPP U 1	**NEEPCO**	**AGTPP**	**25/02/2017 10:21**	AGTPP U 1	Voltage jerk	Not applicable	Not applicable	Not applicable			**25/02/2017 11:17**	No SPS	0.06
	132	AGTPP U 3	**NEEPCO**	**AGTPP**	**25/02/2017 10:21**	AGTPP U 3	Voltage jerk						**25/02/2017 11:17**	No SPS	
	132	AGTPP U 4	**NEEPCO**	**AGTPP**	**25/02/2017 10:21**	AGTPP U 4	Voltage jerk						**25/02/2017 10:27**	No SPS	
	132	AGTPP STG I	**NEEPCO**	**AGTPP**	**25/02/2017 10:21**	AGTPP STG I	Voltage jerk						**25/02/2017 20:06**	No SPS	
	132	AGTPP STG II	**NEEPCO**	**AGTPP**	**25/02/2017 10:21**	AGTPP STG II	Voltage jerk						**26/02/2017 3:30**	No SPS	
	132	AGTPP U 2	**NEEPCO**	**AGTPP**	**25/02/2017 10:26**	AGTPP U 2	Voltage jerk						**25/02/2017 10:54**	No SPS	
	FIR by the constituent	Yes													
	Brief Description of the Incident	**Tripura System except Udaipur area & P.K Bari area (P.K Bari, Dharmanagar, Kailashahar, Ambasa, Kamalpur) along with AGTPP Power Station and Bangladesh System (South Comilla load) were connected with rest of NER Grid through 132 kV Kamalpur-Dhalabil line,132 kV Monarchak- Rokhia line & 132 kV AGTPP-Kumarghat line (132 kV Palatana-Surjamaninagar line was under planned shutdown from 09:09 Hrs on 25/02/17, 132 kV Ambassa-Gamatilla line was under shutdown from 09:06 on 25/02/17).At 10:21 Hr on 25/02/17, 132 kV Kamalpur-Dhalabil line,132 kV Monarchak- Rokhia line & 132 kV AGTPP-Kumarghat line tripped.Due to tripping of these elements, Tripura System except Udaipur area & P.K Bari area (P.K Bari, Dharmanagar, Kailashahar, Ambasa, Kamalpur) along with AGTPP Power Station and Bangladesh System (South Comilla load) were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation :1206 MW , Antecedent Load :1493 MW)**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	Root Cause	Not discussed as this incident involved tripping of lines in Tripura System,Reffered to PCCM													
	Remedial Measures	**Remedial measures will be suggested after finding out the root cause in the next PCCM.**													
13	132	Khandong - Umrangso	**POWERGRID & AEGCL**	**NEEPCO/AEGCL**	**25/02/2017 13:58**	Khandong	Back Up Earth Fault	Not applicable	No	No	**Loss of Load: 3 & Generattion Loss:0**	GD-I	**25/02/2017 15:10**	No SPS	0.003
						Umrangso	No tripping								
	132	Haflong - Umrangso	**POWERGRID & AEGCL**	**POWERGRID & AEGCL**	**25/02/2017 13:58**	Hafllong	DP, ZI, B-E						**25/02/2017 15:10**	No SPS	
						Umrangso	No tripping								
	132	Haflong(PG) - Haflong	**AEGCL**	**POWERGRID & AEGCL**	**25/02/2017 13:58**	Hafllong(PG)	Earth Fault						**25/02/2017 16:08**	No SPS	
						Hafllong	No tripping								
	FIR by the constituent	No													
	Brief Description of the Incident	**Umrangso and Halflong area of Assam was connected with rest of NER Grid through 132 kV Khandong-Umrangsho line 132 kV Haflong-Umrangsho & 132 kV Haflong(PG) - Haflong line . At 13:58 Hr on 25/02/17 , 132 kV Khandong-Umrangsho line 132 kV Haflong-Umrangsho & 132 kV Haflong(PG) - Haflong line tripped. Due to tripping of these elements, Umrangsho and Haflong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1189 MW , Antecedent Load : 1306 MW)**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	Root Cause	Fault during OPEGW stringing work in 132 kV Haflong-Umranshu line due to heavy windy weather as informed by POWERGRID.													
	Remedial Measures	**Extreame care to be taken during OPEGW works to avoid unnecessary trippings.**													
14	132	Khandong - Umrangso	**POWERGRID & AEGCL**	**NEEPCO/AEGCL**	**26/02/2017 12:49**	Khandong	Back Up Earth Fault	Not applicable	No	No	**Loss of Load: 1**	GD-I	**26/02/2017 13:54**	No SPS	**0.001**
						Umrangso	No tripping								
	132	Haflong - Umrangso	**POWERGRID & AEGCL**	**POWERGRID & AEGCL**	**26/02/2017 12:54**	Hafllong	DP, ZI, B-E						**26/02/2017 15:35**	No SPS	
						Umrangso	DP, B-E , 53 km								
	FIR by the constituent	No													
	Brief Description of the Incident	**Umrangso area of Assam was connected with rest of NER Grid through 132 kV Khandong-Umrangsho line & 132 kV Haflong-Umrangsho line .At 12:54 Hr on 26/02/17, 132 kV Haflong-Umrangsho line tripped respectively. Due to tripping of this element, Umrangsho area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**(Antecedent Generation : 1325 MW , Antecedent Load : 1364 MW)**													
	Root Cause	Fault during OPEGW stringing work in 132 kV Haflong-Umranshu line due to heavy windy weather as informedd by POWERGRID.													
	Remedial Measures	**Extreame care to be taken during OPEGW works to avoid unnecessary trippings.**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
15	132	132 kV Badarpur - Kolasib 1 Line	POWERGRID	POWERGRID & P&ED Mizoram	27/02/2017 14:58	Badarpur	DP, ZII, R-Y	Not applicable	Yes	No	Loss of Load:62	GD-I	27/02/2017 15:38	No SPS	0.05
						Kolasib	No tripping		No	No					
	132	132 kV Aizawl - Jiribam 1 Line	POWERGRID	POWERGRID	27/02/2017 14:58	Aizwal	No tripping		No	No			27/02/2017 15:25	No SPS	
						Jiribam	DP, ZIII, R-Y-B		Yes	No					
	FIR by the constituent	No													
	Brief Description of the Incident	**Mizoram system (Zuangtui area, Luangmual area and Kolasib area) was connected with rest of NER Grid through 132 kV Aizawl- Jiribam line & 132 kV Kolasib-Badarpur line (132 kV Aizwal-Kumarghat line was under shutdown from 07:56 Hrs of 24.02.17 for replacement of all existing insulators with polymer composite long rod insulators). At 14:58:58.240 Hrs on 27.02.2017, 132 kV Aizawl- Jiribam line & 132 kV Kolasib-Badarpur line tripped. Due to tripping of these elements, Mizoram system was separated from rest of NER Grid and subsequently collapsed due to no source in this area.**													
	Antecedent Conditions of NER Grid	**Antecedent Load: 1305 MW , Antecedent Generation:1311 MW**													
	Root Cause	Fault in 132 kV Badarpur - Kolasib 1 Line due to fire. Due to non opeartion of Siemens relay at 7SA513 relay at Kolasib end of 132 kV Badarpur - Kolasib 1 Line,fault was cleared from Jiribam end in Zone-3.													
	Remedial Measures	**POWERGRID to rectify problems of relays at Kolasib & Aizwal bays of 132 kV Badarpur - Kolasib 1 Line and 132 kV Aizwal - Kolasib Line respectively.Patrolling rteport and detailed report of the event to be furnished by POWERGRID.**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.एस संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
16	132	132 kV Aizawl - Zungtui 1 Line	POWERGRID	POWERGRID & P&ED Mizoram	27/02/2017 23:01	Aizwal	DP, ZII, Y-E	Not applicable	No	No	Loss of Load:32	GD-I	28/02/2017 2:02	No SPS	0.01
						Zuangtui	No tripping		No	No					
	FIR by the constituent	No													
	Brief Description of the Incident	Zuangtui area of Mizoram was connected with rest of NER Grid through 132 kV Aizawl- Zuangtui line. At 23:01 Hrs on 27.02.17 , 132 kV Aizawl- Zuangtui line tripped. Due to tripping of this element, Zuangtui area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.													
	Antecedent Conditions of NER Grid	Antecedent Load: 1390 MW , Antecedent Generation:1512 MW													
	Root Cause	Vegetation Fault in downstream of Mizoram system.													
	Remedial Measures	Vegetation clearance to be done by P&ED Mizoram and status to be reported to NERPC.													

List of Unit Tripping

During February’17

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.ए स संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
B. यूनिट ट्रिपिंग / Unit tripping															
1	400	Palatana GTG I	OTPC	**Palatana**	30/Jan/2017 16:51	Palatana	GC tripping	Not applicable	No	No	Generation Loss: 178 MW	GI-II	30/01/2017 20:16	No SPS	0.154
	400	Palatana STG I	OTPC	**Palatana**	30/Jan/2017 16:51	Palatana	GC tripping	Not applicable	No	No			30/01/2017 21:13	No SPS	
	Root Cause	Not discussed.													
	Remedial Measures	**Reffered to PCCM.**													
2	400	BgTPP U 1	NTPC	**BgTPP**	02/Feb/2017 20:33	BgTPP	Due to high furnace Presuure	Not applicable	No	No	Generation Loss: 175 MW	GI-II	03/02/2017 0:52	No SPS	0.166
	Root Cause	Not discussed.													
	Remedial Measures	**Reffered to PCCM.**													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.ए स संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
3	132	AGTPP U 3	NEEPCO	**AGTPP**	04/Feb/2017 15:51	AGTPP	Gas detection level High	Not applicable	No	No	Generation Loss: 23 MW	GI-I	04/02/2017 21:30	No SPS	0.021
	Root Cause	Due to leackage problem in spark plug													
	Remedial Measures	**Spark plug already replaced as informed by NEEPCO.**													
4	132	AGTPP STG I	NEEPCO	**AGTPP**	11/02/2017 11:31	AGTPP	Exhaust Pressure high high	Not applicable	No	No	Loss of Generation: 36	GI-I	12/02/2017 19:16	No SPS	0.03
	132	AGTPP STG II	NEEPCO	**AGTPP**		AGTPP	Exhaust Pressure high high	Not applicable	No	No			11/02/2017 21:35	No SPS	
	Root Cause	Due to damage of Contactors inside fan control panel.													
	Remedial Measures	**Already rectified as informed by NEEPCO.**													
5	220	Kopili U 4	NEEPCO	**Kopili**	11/02/2017 17:33	Kopili	thrust bearing temperature high	Not applicable	No	No	Loss of Generation: 47.8	GI-II	11/02/2017 18:00	No SPS	0.02
	Root Cause	Due to leackage in penstoke due to acedic problem													
	Remedial Measures	Urgent patch works are to be taken by NEEPCO before high hydro period and work progress to be reported to NERPC.													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.ए स संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
6	220	Kopili U 4	NEEPCO	**Kopili**	11/02/2017 18:11	Kopili	thrust bearing temperature high	Not applicable	No	No	Loss of Generation: 46.7	GI-II	11/02/2017 18:32	No SPS	0.02
	Root Cause	Due to leackage in penstoke due to acedic problem													
	Remedial Measures	Urgent patch works are to be taken by NEEPCO before high hydro period and work progress to be reported to NERPC.													
7	132	AGTPP STG II	NEEPCO	**AGTPP**	12/02/2017 15:40	AGTPP	Exhaust steam pressure high	Not applicable	No	No	Loss of Generation: 20	GI-I	12/02/2017 16:11	No SPS	0.02
	Root Cause	Due to failure of ejector.													
	Remedial Measures	Now both Holding & Starting ejectors are kept in service as informed by NEEPCO.													
8	400	Palatana GTG I	OTPC	OTPC	**2/19/2017 8:03**	Palatana	Lub oil pump feeder tripped	Not applicable			Loss of Generation: 218	GI-II	19/2/2017 15:53	No SPS	0.15
	400	Palatana STG I	OTPC	OTPC	**2/19/2017 8:03**	Palatana	Lub oil pump feeder tripped	Not applicable					19/2/2017 17:36		
	Root Cause	Not discussed.													
	Remedial Measures	Reffered to PCCM.													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.ए स संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
9	400	BgTPP U 1	NTPC	NTPC	**2/19/2017 12:30**	BgTPP	Drum level low	Not applicable			Loss of Generation: 198	GI-II	19/2/2017 18:22	No SPS	0.05
	Root Cause	Not discussed.													
	Remedial Measures	Reffered to PCCM.													
10	400	BgTPP U 1	NTPC	NTPC	**2/19/2017 19:00**	BgTPP	Loss of air flow to boiler	Not applicable			Loss of Generation: 79.6	GI-II	19/2/2017 20:59	No SPS	0.06
	Root Cause	Not discussed.													
	Remedial Measures	Reffered to PCCM.													
11	400	BgTPP U 1	NTPC	BgTPP	**21/02/2017 19:35**	BgTPP	Generator protection acted	Not applicable	Not applicable	Not applicable	Loss of Generation: 160	GI-II	21/2/2017 23:26	No SPS	0.107
	Root Cause	Not discussed.													
	Remedial Measures	Reffered to PCCM.													
12	132	AGTPP U 3	NEEPCO	AGTPP	**23/02/2017 3:44**	AGTPP	Stator EF	Not applicable	Not applicable	Not applicable	Loss of Generation: 29	GI-I	23/2/2017 13:32	No SPS	0.022

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.ए स संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
	Root Cause	Due to PT fuse failure due to loose contact.													
	Remedial Measures	Already rectified as informed by NEEPCO.													
13	220	AGBPP U 1	NEEPCO	AGBPP	**25/02/2017 14:18**	AGBPP	Due to tripping of gas compressor 2	Not applicable	Not applicable	Not applicable	Loss of Generation: 75	GI-II	25/2/2017 14:56	No SPS	0.071
	220	AGBPP U 3	NEEPCO	AGBPP	**25/02/2017 14:18**	AGBPP		Not applicable	Not applicable	Not applicable			25/2/2017 14:54	No SPS	
	220	AGBPP U 7	NEEPCO	AGBPP	**25/02/2017 14:18**	AGBPP		Not applicable	Not applicable	Not applicable			25/2/2017 15:57	No SPS	
	Root Cause	Due to tripping of Gas compressor 2 on high coolant temparature due to failure of fan motor pulley .													
	Remedial Measures	Motor pulley has been replaced as informed by NEEPCO.													

क्रम सं. / Sl. No.	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर. ऑपरेटर के द्वारा प्रदान की गई रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours (Y/N)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generation in MW)	सी.ई.ए ग्रिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standards	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉरेशन की समय / Date and time of restoration provided by CR operator	एस.पी.ए स संचालन के विवरण / Details of SPS Operation	एमयू में कमी/ Loss in MU
14	220	AGBPP U 1	NEEPCO	AGBPP	**25/02/2017 16:01**	AGBPP	Due to tripping of gas compressor 3	Not applicable	Not applicable	Not applicable	Loss of Generation: 81	GI-II	25/2/2017 18:12	No SPS	0.059
	220	AGBPP U 3	NEEPCO	AGBPP	**25/02/2017 16:01**	AGBPP		Not applicable	Not applicable	Not applicable			25/2/2017 17:02	No SPS	
	220	AGBPP U 7	NEEPCO	AGBPP	**25/02/2017 16:01**	AGBPP		Not applicable	Not applicable	Not applicable			25/2/2017 18:14	No SPS	
	Root Cause	Due to tripping of Gas compressor 3 due to false signal generated from GC-III protection system..													
	Remedial Measures	Machine already synchronized but problem could not be rectified as informed by NEEPCO.													
15	220	AGBPP U 7	NEEPCO	AGBPP	**26/02/2017 1:50**	AGBPP	Due to tripping of WHRB I&II FOR deareator level	Not applicable	Not applicable	Not applicable	Loss of Generation: 28	GI-II	26/2/2017 4:15	No SPS	0.019
	Root Cause	Waste Heat Recovery Boilers tripped due to DC problem.													
	Remedial Measures	Already rectified as informed by NEEPCO.													

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

Event ID	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Line Owner	डाटा प्रदान करना है / Data to be furnished by	Date & Time of Event	Date & Time of restoration	Relay indications	
NERLDC/TL/12/03	132	Badarpur - Panchgram	**POWERGRID**	**POWERGRID & AEGCL**	**07-12-16 12:00**	**07-12-16 12:48**	SPS operation tripping	SPS operation tripping
	Root Cause	Due to problem at Palatana end, SPS operated.						
	Remedial Measures	OTPC is to inform NERPC&NERLDC reason for opearation of SPS which led to load shedding at South Assam area.						
NERLDC/TL/12/04	400	Palatana - Silchar II	**NETC**	**OTPC & POWERGRID**	**07-12-16 12:00**	**07-12-16 13:48**	DP, ZII, R-E	DP, ZII, R-E
	Root Cause	As informed by POWERGRID, the tripping was due to vegetation . Back up earth fault was operated at Silchar end.						
	Remedial Measures	Line infringement has to be cleared by POWERGRID timely to avoid such trippings.						
	Actions Taken	Line infringement has been cleared already as informed by POWERGRID.						

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

Event ID	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Line Owner	डाटा प्रदान करना है / Data to be furnished by	Date & Time of Event	Date & Time of restoration	Relay indications	
NERLDC/TL/12/05	220	Misa - Dimapur II	**POWERGRID**	**POWERGRID**	**07-12-16 15:15**	**07-12-16 15:46**	DP, ZI, Y-E	DP, ZI, Y-E
	Root Cause	As informed by POWERGRID, insulator was punctured at loc no:26.DR indicates transient fault, Angle between faulted phase V and I indicates fault due to vegetation.						
	Remedial Measures	The damaged insulator to be rectified.Vegetation clearance to be done by POWERGRID and is to be reported to NERPC&NERLDC.						
	Actions Taken	The problem has already been rectified as informed by POWERGRID.						
NERLDC/TL/12/06	220	Mariani(PG)-Mokokchung (PG) I	**POWERGRID**	**POWERGRID**	**09-12-16 4:51**	**09-12-16 10:16**	Hand Tripped	Over Voltage
	Root Cause	DR before trippping shows voltage around 137 kV in R-ph. 140 kV in Y-ph, 137 kV in B phase.						
	Remedial Measures	Over Voltage settings at Mokokchung to be increased to 245 kV.						
	Actions Taken	As informed by POWERGRID,Over Voltage settings at Mokokchung has been increased from 242 kV to 245 kV.						

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

Event ID	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Line Owner	डाटा प्रदान करना है / Data to be furnished by	Date & Time of Event	Date & Time of restoration	Relay indications	
NERLDC/TL/12/07	220	AGBPP - Mariani(PG)	**POWERGRID**	**NEEPCO & POWERGRID**	**14-12-16 18:04**	**14-12-16 18:21**	Tripped during relay testing	No tripping
	Root Cause	As informed by POWERGRID, trip command was issued from reactor protection while commissioning of reactor at Kathalguri end.						
	Remedial Measures	Utmost care has to be taken to isolate the tripping wires to avoid such unwated trippings during commissioning.						
	Actions Taken	The problem has already been rectified as informed by POWERGRID.						
NERLDC/TL/12/08	+/- 800	+/- 800 Biswanath Charali-Agra II	**POWERGRID**	**POWERGRID**	**16-12-16 0:11**	**16-12-16 0:32**	Over Voltage	Tripped while blocking Pole 1 due to O/V in NER System

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

Event ID	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Line Owner	डाटा प्रदान करना है / Data to be furnished by	Date & Time of Event	Date & Time of restoration	Relay indications	
NERLDC/12/TL /09	220	Misa - Dimapur II	**POWERGRID**	**POWERGRID**	**19-12-16 4:12**	**19-12-16 4:45**	DP, ZI, B-E	DP, ZI, B-E
	220	Misa - Byrnihat II	**MePTCL**	**POWERGRID & MePTCL**	**19-12-16 4:12**	**19-12-16 18:22**	DP, ZI, B-E	No tripping
	220	Misa - Dimapur I	**POWERGRID**	**POWERGRID**	**19-12-16 4:12**	**19-12-16 4:45**	DP, ZI, B-E	DP, ZI, B-E
	Root Cause	Root cause could not be concluded due to unavailability of DR from Misa,Dimapur & Byrnihat ends.						
	Remedial Measures	132 kV Misa-Byrnihat tripping to be confirmed by NERTS&MePTCL .DR&EL output to be furnished by POWERGRID&MePTCL for concluding root cause.						
NERLDC/12/TL /10	+/- 800	+/- 800 Biswanath Charali-Agra II	**POWERGRID**	**POWERGRID**	**19-12-16 15:19**	**29-12-16 16:03**	Due to protective Y blocking. Detailed report awaited.	
NERLDC/12/TL /11	132	Khliehriat (PG) - Khliehriat (ME) II	**MePTCL**	**POWERGRID & MePTCL**	**25-12-16 12:50**	**25-12-16 13:01**	DP, ZI, Y-E	No tripping
	Root Cause	132 kV Khliehriat - Mustem Line tripped at the same on Zone 1 DPR.But due to extension of Zone 1 of Khliehriat (PG) - Khliehriat (ME) D/C lines up to 70 Kms.,Khliehriat (PG) - Khliehriat (ME) II line tripped.						
	Remedial Measures	After installation of numerical relays in all outgoing feeders from Khliehriat (ME), Khliehriat (PG) DPR setting is to be reviewed by POWERGRID.						

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

Event ID	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Line Owner	डाटा प्रदान करना है / Data to be furnished by	Date & Time of Event	Date & Time of restoration	Relay indications	
NERLDC/12/TL/12	400	Balipara - Bongaigaon II	**POWERGRID**	**POWERGRID**	**26-12-16 19:23**	**26-12-16 19:37**	DP, ZII, B-E	DP, ZII, B-E
	Root Cause	As informed by POWERGRID, bamboo found at loc no : 369,370 which was out of line ROW . Also, inclement weather condition was reported at the time of fault which led to tripping.						
	Remedial Measures	Infringement has to be cleared and regular patrolling of the line is to be done to avoid such trippings.						
	Actions Taken	Infringement has already been cleared as informed by POWERGRID						
NERLDC/12/TL/13	400	Balipara - Bongaigaon I	**POWERGRID**	**POWERGRID**	**26-12-16 19:47**	**27-12-16 18:56**	Over Voltage	DP, ZI, B-E
	Root Cause	As informed by POWERGRID, bamboo found at loc no : 369,370 which was out of line ROW . Also, inclement weather condition was reported at the time of fault which led to tripping.						
	Remedial Measures	Infringement has to be cleared and regular patrolling of the line is to be done to avoid such trippings.						
	Actions Taken	Infringement has already been cleared as informed by POWERGRID						

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

Event ID	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Line Owner	डाटा प्रदान करना है / Data to be furnished by	Date & Time of Event	Date & Time of restoration	Relay indications	
NERLDC/12/TL/14	220	Misa - Dimapur II	**POWERGRID**	**POWERGRID**	**26-12-16 19:50**	**27-12-16 9:02**	DP, ZII, B-E	DP, ZI, B-E
	Root Cause	As informed by POWERGRID, insulator was punctured at loaction no: 26 which caused the tripping.						
	Remedial Measures	The punctured insulator has to be rectified.						
	Actions Taken	Insulator has been rectified as informed by POWERGRID.						
NERLDC/12/TL/15	132	Dimapur - Doyang II	**POWERGRID**	**POWERGRID&NEEPCO**	**26-12-16 21:54**	**26-12-16 22:15**	DP, ZI, B-E	DP, ZI, B-E
	Root Cause	As informed by POWERGRID, the tripping of the line is due to lightning.DR indicates transient fault, most likely on account of lightning.						
	Remedial Measures	Tower footing resistance to be measured by POWERGRID at towers near fault location. If footing resistance goses beyond 10 ohms, proper earthing to be done by POWERGRID by any of the following. 1. Counterpoise earthing 2. direct earthing of shield wire to ground if necessary 3. If there is any difficulty after implementing the already suggested remedies, POWERGRID may install Tower Lightning Arresters.						

पूर्वोत्तर क्षेत्र में 01.11.16 से 30.11.16 तक की घटनाये / Events in NER Grid from 01.11.16 to 30.11.16

Event ID	वोल्टेज स्तर /Voltage Level in kV	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Line Owner	डाटा प्रदान करना है / Data to be furnished by	Date & Time of Event	Date & Time of restoration	Relay indications	
NERLDC/12/TL/16	220	Birpara - Salakati I	**POWERGRID**	**POWERGRID**	**27-12-16 4:01**	**27-12-16 11:29**	Over Voltage	No tripping
	220	Birpara - Salakati II	**POWERGRID**	**POWERGRID**	**27-12-16 4:01**	**27-12-16 6:56**	Over Voltage	No tripping
NERLDC/12/TL/17	220	Misa - Samaguri II	**POWERGRID**	**POWERGRID&AEGCL**	**31-12-16 12:11**	**31-12-16 12:32**	No tripping	DP, ZI, B-E
	Root Cause	As informed by POWERGRID, CB at Misa end auto-reclosed while CB at Samaguri end tripped on Z1, B ph ,22.6 km. The cause for the above tripping is due to vegetation.						
	Remedial Measures	Infringement to be cleared.						
	Actions Taken	Infringement has already been cleared as informed by POWERGRID						