North Eastern Regional Power Committee

MINUTES OF THE 43rd PROTECTION COORDINATION SUB-COMMITTEE MEETING OF NERPC

Date : 13/07/2016 (Wednesday)

Time : 10:00 hrs

Venue : "Hotel Nandan", Guwahati.

The List of Participants in the 43rd PCC Meeting is attached at Annexure – I

Shri P.K. Mishra, Member Secretary, NERPC welcomed all the participants to the 43rd PCC meeting. He mentioned that some constituents were again absent in the meeting and hence any items pertaining to them will not be able to conclude. He requested the members present to give their views on how to address this perplexing situation of non-attendance.

EE, SLDC, Ar. Pradesh opined that each organization may give standing consent to designated officials to attend meeting. SE, DoP Mizoram viewed that NERPC should write to heads of organization highlighting the importance of attending the PCC meeting and the issues which cannot be addressed due to absence of members.

Member Secretary, NERPC informed that both the options have already been exercised with no avail. Further he decided that the matter would be highlighted in next RPC meeting with definitive commitment from the RPC members.

Thereafter, Member Secretary, NERPC requested Shri B. Lyngkhoi, Director/SE(O) to take up the Agenda items.

A. CONFIRMATION OF MINUTES

<u>CONFIRMATION OF MINUTES OF 42nd MEETING OF PROTECTION SUB-</u> <u>COMMITTEE OF NERPC.</u>

SE(O) informed that the minutes of 42nd meeting of Protection Sub-committee held on 6th May, 2016 at Guwahati were circulated vide letter No. NERPC/SE (O)/PCC/2015/4520-4555 dated 20th May, 2016.

The Sub-Committee confirmed the minutes of 42nd PCCM of NERPC since no comments/observations were received from the constituents.

ITEMS FOR DISCUSSION

A.1 Implementation of 3-Phase Auto Reclosure Scheme of Radially fed 132kV Lines connected to Ranganadi HEP:

At present, the power flows to Nirjuli, Gohpur and Ziro radially from Ranganadi HEP and any transient fault in line causes undesirable outages. Hence, to avoid outages during transient fault it is essential to implement 3- Phase Dead Line charging of following 132kV Lines.

a) 132kV Ranganadi – Nirjuli Line (Dead Line Charging at RHEP)

- b) 132kV Nirjuli Gohpur Line (Dead Line Charging at Nirjuli)
- c) 132kV Ranganadi Ziro Line (Dead Line Charging at RHEP)

During 39th PCC meeting, POWERGRID stated that they will extend help to incorporate 3-phase dead-line charging at RHEP end in EPAC Relay. For this NEEPCO will arrange for S/D with due consent of Arunachal Pradesh and intimate POWERGRID in advance. Meanwhile NEEPCO informed that new relay for Nirjuli & Ziro Line has been ordered and expected delivery is November, 2015 and the same will be installed by NEEPCO at RHEP by December 2015.

During 40th PCC meeting, Sr. Manager (O&M), NEEPCO once again informed the forum that material has already reached at site and installation would be completed by 31/12/2015 as mentioned earlier. He requested NERTS to help them in relay coordination during implementation of the scheme. NERTS agreed.

During 41st PCC meeting, it was agreed that shutdown of 132 kV Ranganadi – Lekhi Line and 132 kV Ranganadi - Ziro Line would be accorded on suitable date(s) as decided by 117th OCC with the consent of DoP, AP. Further Assam will support to meet the loads of Arunachal Pradesh during Shut Down through 132kV Gohpur – Nirjuli Line.

Deliberation of the sub-Committee

Sr. Manager, NEEPCO informed that work in 132kV RHEP-Nirjuli line and 132 kV RHEP-Ziro line were commissioned on 29.05.2016 and 27.05.2016 respectively. DGM(AM),NERTS concluded that the successful AR operation has to be closely monitored for the above three lines in case of future trippings. The forum decided to drop the agenda item.

The sub-committee noted as above.

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A.2 Implementation of 3-phase Auto Reclosure Scheme in all lines associated with Khandong and Kopili HEP:

For reliable operation of Power system it is required to implement 3-Phase Auto Reclosure Scheme in all the 132kV lines associated with Kopili and Khandong HEP of NEEPCO. The lists of such lines are:

- a) 132kV Khandong Umrangso Haflong
- b) 132kV Kopili Khandong #1

During 40th PCC meeting, AEGCL informed the forum that they have already written a letter to SAMA Power to carry out the work through ERL but so far they have not revert back. AEGCL stated that they will take up the matter once again.

The Sub-committee directed that a joint visit for carrier inter-trip signaling check to be conducted by POWERGRID & AEGCL at a suitable date and AEGCL should intimate to POWERGRID & NEEPCO 3 days in advance and the same should be completed before the next PCC meeting.

During 41st PCC meeting, AEGCL informed the forum that PLCC panel is already available at Umrangso, ABB ETL41 (Speech & data) panel will be shifted from Khandong to Umrangso within 15/01/2016. However panel would be commissioned after joint visit with POWERGRID. Further, for 132kV Kopili – Khandong Line NEEPCO informed the forum that Kopili end bay belongs to POWERGRID and Khandong end bay belongs to NEEPCO. Accordingly, job is to be taken up jointly by NEEPCO and POWERGRID.

During 42nd PCC meeting, AEGCL informed the forum that ETL 441 panel is to be shifted from Khandong to Umrangso and Carrier-Intertripping/AR to be checked by POWERGRID at Haflong. NEEPCO informed that at Khandong end Auto-Reclosure is functioning in all circuits. After detailed deliberation, the forum requested Assam, POWERGRID & NEEPCO to fix the suitable date for joint inspection and the above works should be completed within 30th May 2016.

Deliberation of the sub-Committee

The forum viewed the matter seriously as the issue was pending for a very long time. The Sub-committee directed Assam, POWERGRID and NEEPCO to resolve and complete the work within 31.07.2016.

The sub-committee noted as above.

Action: POWERGRID, NEEPCO & Assam

A.3 Implementation of the recommendations of the Protection Audit:

As per SI. no 9.1.1 & 9.1.4 of Report on Enquiry Committee on Grid Disturbance in Northern Region on 30th July 2012 and in Northern, Eastern & North-Eastern Region on 31st July 2012, thorough Third Party protection audit needs to be carried out periodically along with independent audit of Fault Recording Instruments.

The status as intimated by NERLDC during the 42nd PCC meeting is as given below:

Status of submission of data related to Third Party Protection Audit				
Name of Constituent	As per format of Task Force	As per format of NERPC	Remarks	
DoP, Ar. Pradesh	Not submitted	Submitted	Data as per format of Task Force to be submitted by 31.07.2016	
	Partly submitted	Partly Submitted		
AEGCL	(Details as per	(Details as per		
	Annexure-1)	Annexure-1)		
TSECL	Not submitted	Submitted	Data as per format of NERPC for Surajmaninagar & Rabindranagar and Data as per Task Force Format for all sub-stations by 31.07.2016	
NEEPCO	AGTPP Not submitted as per format	Not Submitted as per format	Data for AGTPP as per Task Force format by 31.07.2016	

Deliberation of the sub-Committee

After detailed deliberation, the Sub-committee had decided that those who have not submitted the data as per format of Task Force in Annexure A.2 (II) & also, as per the format of NERPC in Annexure A.2 (i) for 3rd Party Protection Audit are requested to furnish these data **by** *31.07.2016* **positively**.

The Sub-committee noted as above.

Action: All remaining utilities as above.

A.4 <u>Status of R&M Implementation of NER from PSDF</u>:

The Sub-committee requested all constituents to complete the proactive actions like taking Board's approval, floating of NITs, selection of bidders etc., as directed by the Hon'ble CERC.

During the meeting held on 11.12.2015 at Delhi under the Chairmanship CEA, the forum expressed concerned about delay in disbursement of fund and execution of R&M works.

The status as given in 42nd PCC meeting is given below:

Nagaland: NIT & LOAs for complete project of Rs. 39.96 Crores – Completed.

Assam: NITs is under progress & LOAs by June-July, 2016 for entire amount of Rs. 352.89 Crores.

MePTCL: NIT for Rs. 37.52 Cr – completed & LOAs for Rs. 8.66 Cr -out of Rs. 69.19 Crores. The rest NITs & LOAs is expected by June-July, 2016

MePGCL: No progress till date.

Tripura: NIT for completed project of Rs. 31.05 Crores – completed, LOAs by June - July, 2016

Mizoram: NIT is under progress & LOAs likely by June, 2016 for entire amount of Rs. 26.84 Crores.

Ar. Pradesh & Manipur: Approval from MoP is awaited. However, they have informed that NITs have already been prepared by them and the same would be published once the approval from MoP is received.

The forum requested all the constituents to complete the work at the earliest. Further, the forum directed that the status of progress of work be intimated to NERPC Secretariat every month so that the same can be submitted to Hon'ble CERC & CEA.

Deliberation in the Meeting:

SE, DoP Mizoram stated that tender has been floated for main equipments and tender papers for diagnostic tools have been completed, however sanction from competent authority is awaited. DGM(SO-II),NERLDC opined that physical progress needs to be checked periodically. S.E.(O),NERPC once again reiterated that award of work is crucial and needs to be expedited urgently. The status of NITs, LOAs will now be reviewed and the same will be filed to Hon'ble CERC about delay as directed

The Sub-committee noted as above.

Action: All 7 NER States.

A.5 <u>Root cause analysis of tripping in Southern Part of NER on 08.08.2015 and</u> 24.09.2015 & Remedial Measures:

Remedial Measures suggested by sub group members at the meeting held at NERPC on 29.09.15

The islanding scheme of AGTPP with Tripura system is to be reviewed so as to ensure successful islanding in such cases of isolation in NER Grid.

During 38th PCC meeting, the Sub-Committee decided that in addition to the recommendations of the sub-group the following should be implemented ASAP:

1. Modification to SPS-1 at Palatana: Unit-I and II to be put in AND logic so that SPS-1 would operate.

During 40th PCC meeting, OTPC informed that the work has already been completed.

DGM (SO-II), NERLDC stated that on 15.12.2015, SPS 1 was triggered when only one module is in operation which is not correct. The SPS 1 should be triggered when both the modules are in service. He requested OTPC to check the scheme and do the necessary logic correction at the earliest.

In 41st PCC meeting, DGM(O&M), OTPC suggested that SPS-1 be disabled when one module is not running, meanwhile OTPC would review the scheme and revert back to the forum with suggestions for further modification(if possible). The forum agreed to the proposal. DGM, OTPC also proposed for modification to SPS-3 since now both units are running. It was decided to refer the matter to System Studies sub-group.

In 42nd PCC meeting, SE(O), NERPC informed that due to paucity of time, the System Studies sub-group meeting could not be held during the month and the same will be convened soon. It was discussed that review of Islanding Scheme No 2 are required in view of change in load pattern after commencement of power supply to Bangladesh. NERPC agreed to conduct meeting by end of May.

Deliberation in the Meeting:

SE(O), NERPC informed that due to paucity of time, the System Studies sub-group meeting could not be held till now. OTPC representative informed that GD-IV on 09.07.2016 may have been aggravated due to non-modification in SPS-3. He stated that in the current scheme once SPS-3 is activated generation is reduced to 200 MW and the other unit goes under runback. He suggested that there is a need to increase the limit of generation to 250 MW so that technical minimum for Unit-I is satisfied.

NERLDC did not concur to the views of OTPC that non-modification of SPS-3 led to the GD-IV on 09.07.2016. It was iterated that as per discussions on SPS-3 in forums of NERPC, it had been decided that Palatana should back down to 200 MW irrespective of their quantum of generation and this will take care for both the modules of Palatana.

The forum requested NERPC to kindly convene System Studies sub-group meeting at the earliest.

The Sub-committee noted as above. Action: NERPC.

Root Cause Analysis & Remedial Measures by sub group members at the meeting held at NERPC on 18.11.15 regarding Non-Tripping of Azara- Bongaigoan as raised by AEGCL:

Cause: As per information given by POWERGRID, the incidences above are due to high arcing faults.

Remedial Measures:

- a. Explore to increase the resistive reach of Z-2 and Z-3.
- b. DEF characteristics should be IDMT in place of definite time with 1100msec opening time at maximum fault level
- c. Further, Z-3 setting should be 1000msec and necessary co-ordination is required for associated lines.
- d. NERPC Secretariat may extend help wherever necessary Administrative coordination is required for clearance of faults.

During 40th PCC meeting, POWERGRID requested AEGCL to implement Zone 3 setting as per the recommendation of task force. Also DEF delay setting should be 100 ms more than Zone 3 setting with IDMT characteristics. AEGCL proposed for review of Zone 3 setting as recommended by task force. However, POWERGRID opined that there is no scope for review as it is the matter for implementation.

AEGCL insisted for joint meeting for which POWERGRID sought agenda from AEGCL.

The Sub-committee requested NERPC to invite AEGCL during the monthly Subcommittee meeting to discuss about various grid incidences being held every month by NERPC along with above issues of Assam.

During 42nd PCC meeting S.E (O) NERPC requested AEGCL to kindly make it convenient to attend the next Sub-Committee (for GD/GI) meeting, so that the matter

may be discussed. The sub-committee requested AEGCL to make Zone-3 protection settings as per Task Force recommendations.

Deliberation in the Meeting:

It was agreed that during joint visit of POWERGRID and AEGCL to 400 kV Azara for rectification of phase notations, review of DEF and Zone-3 settings as above may also be carried out.

The Sub-committee noted as above.

Action: NERPC.

A.6 Grid Incidences and Grid Disturbances from January, 2016 to June, 2016:

The following numbers of Grid Disturbances (GD) & Grid Incidents (GI) occurred during the period w.e.f 1st January, 2016 to 30th June, 2016 :-

SI	Control	Grid Incidents	Grid Disturbance	Grid Incidents	Grid Disturbance
No	Area	Jan'16 to Jun'16	Jan'16 to Jun'16	During 2016	During 2016
1	Palatana	10	1	10	1
2	AGBPP	12	2	12	2
3	AGTPP	18	1	18	1
4	Ranganadi	1	1	1	1
5	Kopili	0	1	0	1
6	Khandong	0	1	0	1
7	Doyang	0	3	0	3
8	Loktak	2	2	2	2
9	BgTPP	2	2	2	2
10	Arunachal Pradesh	0	14	0	14
11	Assam	0	28	0	28
12	Manipur	0	36	0	36
13	Meghalaya	0	41	0	41
14	Mizoram	0	15	0	15
15	Nagaland	0	24	0	24
16	Tripura	0	2	0	2

CL No.	Category of GD/GI	Grid Disturbance in nos		
SI . No.		Jan'16 to Jun'16	During 2016	
1	GI-I	26	26	
2	GI-II	28	28	
3	GD I	197	197	
4	GD II	4	4	
5	GD III	0	0	
6	GD IV	0	0	
7	GD V	1	1	
8	Total GI	54	54	
9	Total GD	202	202	

Deliberation in the Meeting:

DGM(SO-II),NERLDC informed that the sub-group had analyzed almost all the trippings and suggested for remedial actions that need to be executed as early as possible.

The Sub-committee noted as above.

A.7 Root cause analysis of Major Grid Disturbance on 16th April 2016:

A major disturbance of category GD-V occurred in NER Grid on 16.04.16 at 1203 Hrs. Concerned persons of all constituents of NER are requested to participate in the meeting alongwith available data for fruitful discussion of the following disturbance.

NER Grid was in synchronism with ER Grid through 220 kV Birpara - Salakati I & II, 400kV Bongaigaon - New Siliguri I, II, III & IV lines and was connected with NR Grid through +/- 800 kV HVDC Biswanath Chariali - Agra Pole-I.

At around 12:00:35.739 Hrs, 400 kV Bongaigaon - BgTPP line I tripped from Bongaigaon end on DP, B-phase, Zone II.

At 12:01:03.001 Hrs, 400 kV Bongaigaon - Balipara line IV tripped on DP, B-phase, Zone II and fault cleared from Balipara end in 325 msec (as per DR data).

Around 12:03:07.272 Hrs, 400 kV Bongaigaon - New Siliguri line III tripped on Zone IV at Bongaigaon. 400 kV Bongaigaon - BgTPP line II tripped from both ends at 12:03:30.091 Hrs and 400 kV Bongaigaon - Azara line tripped at 12:03:30.464 Hrs on DP, B-phase, Zone II at Azara end.

After that, 400/220kV 315 MVA ICT at Bongaigaon tripped on Back Up Over Current Protection on HV Side at around 12:03:36.784 Hrs. 400 kV Bongaigaon - New Siliguri line I tripped at 12:03:36.827 Hrs, 400 kV Bongaigaon - New Siliguri line II tripped at 12:03:37.964 Hrs from Bongaigaon end on over voltage. 400 kV Bongaigaon- New Siliguri line IV also tripped.

Due to these trippings, NER grid desynchronized from rest of India grid and at 12:03:40.960 Hrs. AGTPP along with part of Tripura system separated from isolated NER Grid (from PMU). Sarusajai bus blacked out at 12:03:43.360 Hrs and at 12:03:45 Hrs, +/- HVDC BNC - Agra Pole I blocked. Subsequently major part NER grid collapsed due to load generation mismatch. 220 kV Salakati S/S remained connected with Birpara and Gelephu S/S. AGBPP, LTPS and NTPS stations survived with generation of 150 MW, 90 MW and 60 MW respectively with upper Assam load due to successful operation of islanding scheme at around 12:05 Hrs (information taken from SLDC). The island was synchronized with main grid at Misa at 1406 Hrs. Tripura system initially survived along with AGTPP generation with demand of around 60 MW. Subsequently this island collapsed at due to load generation mismatch.

Details of Restoration attached at Annexure-1

Load Loss: 973 MW Generation Loss: 1125 MW Category as per CEA Standards: GD-V Root Cause Analysis: Remedial Measures:

All utilities of NER are requested to furnish the details for fruitful discussion as mentioned below:

a. Disturbance Recorders (In COMTRADE format), Relay Flags, Pickup distance of DP relays, Event Loggers, and SOE from all 400 kV and 220 kV Substations for all feeders.

- b. Details of Operation of SPS during the disturbance on 16th April 2016
- c. Details of Operation of UFR during the disturbance on 16th April 2016 along with feeder-wise quantum of load relief.
- d. Detailed bus schemes indicating feeders connected in Main I and Main II at 400 kV Bongaigaon, 400 kV BgTPP (NTPC), 400 kV Balipara, 400 kV Silchar, 400 kV Azara, prior to the disturbance
- e. Observations from your end regarding the disturbance.
- f. Reason for pick-up of Backup O/C relays at HV side of ICT at Bongaigaon, even though fault was on HV side
- g. Relay flags for all Units and Lines tripping along with time of tripping and restoration.
- h. Loktak, AGBPP, AGTPP and Palatana may provide the bus frequency data at the time of disturbance (from 1200 Hrs to 1300 Hrs, on 16-04-2016).
- i. Time of formation of AGBPP island along with details of tripping of lines.
- j. Review of Relay Setting
- k. Operation of HVDC Frequency controller during the disturbance.
- I. Time synchronisation of DR & EL
- m. Issues with timely submission of data
- n. Dynamic response of Machines.
- o. Second infeed point of NER.

As per discussion in the Sub-Group meeting preceding 42nd PCC meeting, the preliminary investigation revealed the following:

- 1) Line differential protection for 400 kV BgTPP (NTPC)-Bongaigaon (PG) I & II lines was not commissioned (as on 16.04.2016) by NTPC & POWERGRID at their ends.
- 2) DEF operated (at Bongaigaon end) with time delay 440 ms to clear the fault.
- However before DEF could trip the line, all circuits of 400 kV Binaguri-Bongaigaon tripped on Zone-2 from 400 kV New-Siliguri end with time delay 350ms.

After detailed deliberation the forum felt that line differential protection for 400 kV BTPS-Bongaigaon should have been commissioned and time delay for zone-2 at Binaguri should have been around 600ms as is the standard for long lines followed by a short line.

The non-clearance of fault by relays at Bongaigaon end on 400 kV Bongaigaon – BgTPP (NTPC) I line, and lower settings of Zone-2 as compared to that recommended by CEA's V. Ramakrishna Task Force seems to be the primary cause of the disturbance.

Members also suggested that a special Enquiry Committee be formed for detailed and thorough investigation for the GD. SE(O), NERPC suggested that a committee be formed with DGM(SO-II), NERLDC as the Chairman and members from NERLDC, NLDC, NERTS, NTPC, AEGCL, MePTCL, NEEPCO and NERPC. Enquiry Committees for analysis of Grid Disturbance on 30th & 31st Jul12 were constituted by members of independent bodies. It is proposed to constitute Enquiry Committees for analysis of Grid Disturbance on 16th Apr16 with independent members. The forum unanimously agreed and set the deadline of 30.05.2016 for submission of report by the committee.

After detailed deliberation the forum felt that there are many pre and post disturbance events those need to be analyzed for correction, if any, of various scheme viz. Relay Setting, SPS Operation, Islanding Scheme, UFR Load Shedding Scheme functioning etc. Accordingly, SE (O), NERPC suggested that a committee be formed with DGM (SO-II), NERLDC as the Chairman and members from NERLDC, NERTS, NTPC AEGCL and NERPC to analyze the disturbance jointly conclude the same and submit report containing findings and recommendation thereof for corrective measures within 30.05.2016. The forum unanimously agreed to the suggestion.

Deliberation in the Meeting:

The forum agreed that for cases of GD-IV and GD-V in NER, the events are to be analyzed without any delay to prevent loss of valuable information that may prevent identification of root cause. It was decided that the committee to be headed by SE(O), NERPC would be formed at the earliest with Terms of Reference, so that cases of GD-V in NER on 16.04.16, and GD-IV in NER on 09.07.2016, be brought to conclusion by 31st July 2016.

The Sub-committee noted as above. Action: NERPC/NERLDC/NERTS/NTPC/AEGCL.

A.8 <u>Review of remedial actions pertaining to Grid Disturbances w.e.f. 01.01.2016</u> <u>to 31.03.2016</u>:

Name of Control Area	Disturbance	Remedial action suggested	Status
Assam	At 1020 Hrs 25.02.16, 220 kV Misa (PG) - Mariani(AS) (Misa (PG) – Not Furnished and Mariani(AS) – Auto Reclose Lockout) line, 220 kV Samaguri – Mariani(AS) (Samaguri (AS) – DP, ZI, R-E and Mariani(AS) – DP, ZI, R-E) line and 220 kV AGBPP - Mariani(PG) (AGBPP (NEEPCO) – Direct Trip received and Mariani(PG) – Over Voltage (O/V)) line tripped.	recommended i installation of I 400/220 kV, 2 nd 315 t MVA ICT at Bongaigaon & N 400/220 kV, 2x315 s MVA ICT at BgTPP i at the earliest and r requested AEGCL to E kindly attend the (next Sub-Group a meeting for review of c zone-2 and zone-3 t settings and other 2	installation of ICT referred to OCC. NERLDC also suggested to include review of Earth Fault
	At 1817 Hrs 16.03.16, 400/220/33 kV, 315 MVA ICT at Bongaigaon (PG) (Bongaogaon(PG) - R-Ph, Over Current), 220 Agia (AEGCL)- Azara (AEGCL) (Agia (AEGCL) - Over Current and Azara (AEGCL) - No Tripping) and 220 kV Boko(AEGCL) - Azara (AEGCL) (Boko (AEGCL) - Over Current & Azara (AEGCL) - No Tripping) lines tripped.		(TEF) settings and co- ordinate with timings of Zone-2 and Zone-3.
	Multiple tripping of 132 kV Imphal(PG)- Imphal(MSPCL) I&II on 04.01.16,05.01.16,12.01.16,14.01.16,21. 01.16,24.01.16, 01.16,24.01.16, 09.02.16,07.03.16,14.03.16, 19.03.16 & 26.03.16 Multiple tripping of 132 kV Loktak)- Ningthoukong(MSPCL) on 01.02.16,19.03.16 & 31.03.16 01.02.16,19.03.16 01.03.16	DGM(AM), NERTS informed that for Imphal(PG)- Imphal(Man) line, settings for DP, EF/OC have been reduced to isolate from severe faults in Manipur system. He also suggested that R&M works need to be expedited. After detailed deliberation	MSPCL informed that R&M works at 132kV Yurembam & Ningthoukon g S/Sn has been completed in all respect(excep t testing &
Manipur		the Sub-Committee suggested the following: 1) Yurembam & Ningthoukong S/S R&M works to be checked and status reported by Expert Committee (NERLDC/NERTS/NE RPC).	would be finalized after testing activities are completed.
		 2) Expert Committee to draw up action plan for completion of balance activities. 3) After submission of report, NERTS will decide timeline for restoration of settings to normalcy. The forum requested 	substation, problem exists Circuit-

		NERPC to write a letter to MD, MSPCL for this issue.	Karong feeder at Yurembam end which does not operate, and needs to be replaced by MSPCL.
Arunachal Pradesh	Tripping of 132kV Ranganadi-Lekhi on 19.01.16 & 21.01.16	The EF relay at Lekhi should be made DEF (directional) towards Nirjuli/Itanagar. The Sub-Group also suggested that EF relay setting to be high set with low time delay (if possible) for speedy fault isolation.	NERTS informed that in case of tripping of 132kV Nirjuli-Lekhi line, it has been observed that there is no fault in line. So downstream fault is suspected. DGM(AM),NE RTS stressed that EF relay at Lekhi for RHEP-Lekhi should be made directional. EE, SLDC, Ar. Pradesh assured that the scheme would be implemented before 31.07.2016., in consultation with NERTS, POWERGRID.
	Tripping of 132 kV Dimapur(PG)- Dimapur(NG) I&II on 11.01.16, 21.02.16.	The 42 nd PCC forum decided no proper analysis can be done	Nagaland representative assured that
Nagaland	Multiple tripping of 132kV Dimapur(PG)- Kohima(NG) on 12.01.16, 22.01.16, 21.02.16 & 31.03.16.	unless details (relay flags, DR etc.) are submitted by DoP Nagaland. However	in future tripping details (including
	Tripping of 132 kV Doyang(NEEPCO)- Mokokchung(NG) on 08.02.16, 18.02.16, 21.02.16.	forum suggested that vegetation clearance activities be taken up in earnest by DoP Nagaland to reduce the number of trippings. As no	relay flag, DR, Event Logger, etc.) would be sent alongwith patrolling reports.

		representative from DoP, Nagaland attended in the meeting, the issues could not be discussed in detail. The members expressed concern over non- representation of DoP, Nagaland to the sub-committee. The forum requested NERPC to write a letter to Chief Engineer, DoP, Nagaland for this issue.	
Mizoram	At 1420 Hrs 09.01.16, 132 kV Aizwal - Kolasib (Aizwal (PG) - Earth Fault and Kolasib – No Tripping) line and 132 kV Badarpur - Kolasib (Badarpur (PG)- DP, ZIII, R-E and Kolasib - No Tripping) line tripped. Tripping of 132kV Aizawl-Zuangtui on 24.02.16, 14.03.16, 28.03.16. At 1621 Hrs 31.03.16, 132 kV Aizwal - Kumarghat (Aizwal (PG) – Not Furnished and Kumarghat- DP, ZII, Y-E), 132 kV Aizwal - Kolasib (Aizwal (PG) – DP, ZI, B-E and Kolasib – Not Furnished) and 132 kV Aizwal – Jiribam (Aizwal (PG) – DP, ZII, B-E and Jiribam- Not Furnished) line tripped.	decided no proper analysis can be done unless details (no tripping, relay flags, DR etc.) are submitted by DoP Mizoram. However forum suggested that vegetation clearance activities be taken up in earnest by DoP Mizoram to reduce the number of trippings. As no	SE, DoP Mizoram assured that in future tripping details (including relay flag, DR etc.) would be sent alongwith patrolling reports.

	1	1	
	Multiple tripping of 132 kV Khliehriat(PG)- Khliehriat(ME) I&II on 27.02.16,28.02.16, 19.03.16, 28.03.16, 31.03.16.	In the Sub-Group meeting preceding 42 nd PCCM, after analysis of all tripping, it was	Khliehriat: In the Sub- Group meeting preceding
Meghalaya	At 1830 Hrs 29.01.16, 132 kV Agia (AEGCL) – Medipathar (MePTCL) (Agia (AEGCL) – Not Furnished and Medipathar (MePTCL) -Not Furnished) line tripped.	R&M works (mainly earthing) is of utmost importance.SI importance.MePTCL informed that:-informed works1)Earthing thight at Completed within one week.2)Within one month numerical relay will be installed in all pr feeders emanating from Khliehriat3)Earthing of Towers of all transmission lines of MePTCL will	43rd PCCM SE,MePTCL informed that earthing works have been
	At 0804 Hrs 04.03.16, 132 kV Lumshong- Panchgram (Lumshnong – Earth Fault and Panchgram- Earth Fault) line tripped.		completed except 33kV switchyard. Also Numerical
	At 2150 Hrs 30.03.16, 132 kV Nangalbibra (MePTCL) – Medipathar (MePTCL) (Nangalbibra(MePTCL)- DP,ZII, R-Y-B and Medipathar (MePTCL) –No Tripping) line tripped.		Relays procurement process is underway and as a test case Numerical Relays to be installed for
		DGM(AM), NERTS clarified that POWERGRID would review relay settings at Khliehriat(PG) once line 1&2 are completed. He also informed that POWERGRID is in the process of installing Line LAs for 132kV Aizawl- Kumarghat, 132kV Badarpur-Kolasib,	Leshka feeder on 18.07.2016. Regarding installation of line LAs S.E.(O),NERP C requested the state utilities to conduct studies for requirement and prepare DPR in this
		132kV Khliehriat- Khandong and 132 kV Khandong- Haflong. S.E.(O), NERPC proposed that for all the state lines (Meghalaya in particular) for lightning prone zones; line LAs may be installed with funding from PSDF. All members agreed.	regard. NERTS informed that the results obtained after installation of line LAs would be shared with the members.
BNC	Tripping of 400kV Ranganadi-BNC I (Overvoltage) on 12.01.16 & 13.01.16.	The 42 nd PCC felt proper reactive power compensation is	The forum referred the matter to the

	required at BNC- HVDC S/Sn. And it is needed to expedite commissioning of 1 no. Bus Reactor at 400 kV Rangandi.	
At 1834 Hrs 25.01.16, 132 kV Biswanath Charali - Pavoi I (Biswanath Charali (PG) – No Tripping and Pavoi (AEGCL) – Not Furnished) line, 132 kV Biswanath Charali -Pavoi II (Biswanath Charali (PG) – Over Current and Pavoi (AEGCL) – Not Furnished) line, 220/132 kV, 50 MVA ICT I at Balipara (Balipara – Over Current) and 50 MVA ICT II at Balipara (Balipara – Over Current) tripped.	Forum suggested that vegetation clearance activities be taken up in earnest by AEGCL & DoP Ar. Pradesh to reduce the number of trippings.	were re- analyzed by the sub-
At 2030 Hrs 25.01.16, 132 kV Biswanath Charali-Pavoi I (Biswanath Charali (PG) – No Tripping and Pavoi (AEGCL) – Earth Fault) line, 132 kV Biswanath Charali- Pavoi II (Biswanath Charali (PG) – Directional Earth Fault and Pavoi (AEGCL) – Earth Fault) line tripped.		

NERLDC has requested to submit First Information Report as per IEGC (Grid Code) including Relay indication, Patrolling reports, etc., in case of any event in the Grid as per definition of IEGC, and also requested to submit report of vegetation clearance conducted on monthly basis.

Action: Ar. Pradesh, AEGCL, MSPCL, MeECL, Mizoram, Nagaland, TSECL and NERTS.

A.9 Disturbance in Bongaigaon Thermal Power Plant:

At 1242 Hrs 02.03.16, 400 kV BgTPP- Bongaigaon I & II (BgTPP- Bus Bar Differential Protection and Bongaigaon- Direct Trip) lines tripped. BgTPP Unit I also tripped due to operation of Busbar differential protection. Due to tripping of these elements Bongaigaon Thermal Power Plant blackout.

The 42nd PCC forum requested NTPC to ensure that there is proper sharing of load and outgoing feeders between Main-I and Main-II buses (DMT bus scheme at 400 kV BgTPP). From this incident, it appears that both the feeders of 400 kV BgTPP (NTPC) – Bongaigaon I & II were on same bus, which got tripped due to operation of Bus-bar differential protection on one bus. NTPC was asked to check what was the bus-bar configuration at the time of disturbance. NTPC representative agreed to revert back to the forum with details of fault (due to which bus bar differential operated).

Deliberation in the Meeting:

DGM, NTPC informed that there was problem in bus-coupler CT which has been rectified since then.

The forum re-iterated that the primary cause of this blackout inspite of there being Double Main scheme was that both feeders of 400 kV BgTPP – Bongaigaon D/C was kept on same bus, and requested NTPC to ensure that feeders and generators are distributed uniformly across both buses.

The Sub-Committee noted as above.

A.10 <u>Tripping of generating units at AGBPP-NEEPCO:</u>

- **a.** At 1153 Hrs on 06.01.2016, Units # 2, 5, 9 of AGBPP tripped due to tripping of Gas Compressor-IV (Generation Loss = 73 MW)
- b. At 0434 Hrs on 11.01.2016, Units # 5 of AGBPP tripped due to tripping of Gas
 Compressor-II (Generation Loss = 45 MW)
- c. At 0508 Hrs on 12.01.2016, Units # 2&4 of AGBPP tripped due to tripping of Gas Compressor-II (Generation Loss = 89 MW)
- d. At 0635 Hrs on 13.01.2016, Units # 2,3,4&8 of AGBPP tripped due to tripping of Gas Compressor-II (Generation Loss = 144 MW)
- e. At 0544 Hrs on 08.02.2016, Unit # 4 of AGBPP tripped due to tripping of Gas
 Compressor-II (Generation Loss = 31 MW)
- f. At 1052 Hrs on 11.02.2016, GTG I & STG I of AGBPP tripped due to Tripping of Gas Booster Compressor (Generation Loss = 250 MW)
- **g.** At 0155 Hrs on 26.02.2016, Units # 1,2,3,7&8 of AGBPP tripped due to Tripping of Gas Compressor II (Generation Loss = 111 MW)
- h. At 0050 Hrs on 06.03.2016, Units # 7&8 of AGBPP tripped due to tripping of Gas Compressor II (Generation Loss = 33 MW)

During 42nd PCCM, NEEPCO informed that reasons of GC tripping(s) would be furnished by them at the earliest.

Deliberation in the Meeting:

Sr. Manager, NEEPCO informed that although GC-I, II, III out of 4 Gas Compressors were replaced recently, some problem with vibration of these compressors still exist. The new gas compressor I, II &III tripped due to vibration problems.

The forum requested NEEPCO to resolve this matter at the earliest.

The Sub-Committee noted as above.

A.11 <u>Tripping of generating units at AGTCCPP-NEEPCO:</u>

a. At 0654 Hrs on 10.01.2016, Units # 3 of AGTPP tripped due to Differential pressure high in inlet air filter (Generation Loss = 14 MW)

b. At 0324 Hrs on 11.01.2016, Units # 2 of AGTPP tripped due to Differential pressure high in inlet air filter (Generation Loss = 13 MW)

c. At 1520 Hrs on 05.02.2016, Unit # 3 of AGTPP tripped due to control system problem (Generation Loss = 15 MW)

d. At 1914 Hrs on 05.02.2016, STG II of AGTPP tripped due to high core temperature (Generation Loss = 20 MW)

e. At 1128 Hrs on 15.02.2016, STG I of AGTPP tripped due to tripping of operator console (Generation Loss = 22 MW)

f. At 1901 Hrs on 03.03.2016, STG II of AGTPP tripped due to operation of Rotor earth fault protection (Generation Loss = 23 MW)

g. At 2340 Hrs on 03.03.2016, Unit # 1 and STG-I of AGTPP tripped due to low control oil pressure (Generation Loss = 34 MW)

h. At 1042 Hrs on 04.03.2016, Unit # 1 of AGTPP tripped due to boiler problem
 (Generation Loss = 20 MW)

At 2127 Hrs on 27.03.2016, Unit # 3 of AGTPP tripped (Generation Loss = 15 MW)

j. At 1031 Hrs on 28.03.2016, Unit # 3 of AGTPP tripped due to problem in Control System (Generation Loss = 4 MW)

During 42nd PCCM, NEEPCO informed that cause and rectification(s) done, if any, would be furnished by them at the earliest. The reason for these disturbances could be un-cleared fault in Tripura system. However, due to absence of any representative from TSECL, the matter could not be discussed in detail. The sub-committee expressed concern over non-participation of TSECL in PCC meetings inspite of repeated requests.

The forum requested NERPC to write a letter to CMD, TSECL for this issue.

Deliberation in the Meeting:

DGM(SO-II),NERLDC informed that the list of lines with protection system details in Tripura system were circulated by NERLDC to NERPC, NERTS, Assam, NEEPCO and Tripura after 122nd OCC so that the process of protection audit of 79 Tilla and Surjamaninagar substations of TSECL can be begun. After detailed deliberation it was decided that Shri Prasenjit Sarkar, Manager, NEEPCO would also be a part of audit team. S.E.(O),NERPC informed that date would be finalised and communicated to TSECL. The forum noted that TSECL failed to appreciate the seriousness of faults in Tripura system being cleared by remote ends at AGTPP or Palatana, leading to loss to all constituents on account of tripping of ISGS.

The Sub-Committee noted as above.

Action: NERPC.

A.12 Tripping of generating units at Loktak HEP-NHPC:

a. At 1720 Hrs on 17.01.2016, Units # 3 of Loktak tripped due to high Air temperature (Generation Loss = 35 MW)

b. At 1715 Hrs on 08.03.2016, Unit # 1 of Loktak tripped due to GBOC pump failure (Generation Loss = 35 MW)

The 42nd PCC forum viewed very seriously the absence of representative of NHPC and requested NHPC to kindly submit details of above trippings and remedial actions undertaken in this regard.

Deliberation in the Meeting:

The forum once again noted the absence of representative from NHPC and requested NERPC to write to NHPC.

The Sub-Committee noted as above.

Action: NHPC.

A.13 <u>Completion of activities within specified time as per directives of CERC</u> vide order in Petition No. 113/MP/2014

As per order in Petition No. 113/MP/2014 of Hon'ble CERC, CERC directed to power utilities and organizations of NER to complete the activities within specified time/submit monthly reports as per provisions of IEGC & Grid Standards of CEA etc. List of actions/activities/reports to be completed within specified time as per directives of CERC vide order in Petition No. 113/MP/2014 attached below.

During 42nd PCC meeting, All the utilities were once again requested to submit compliance status latest by 20.05.2016.

Deliberation in the Meeting:

The latest as updated in the 43rd PCC meeting is attached at **Annexure-A.13**.

The Sub-Committee noted as above.

Action: All utilities as above.

A.14 <u>Standardization of Disturbance Recorder Channels:</u>

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**.

Till date no comments has been received from any constituents. It is requested all constituents of NER to standardize Disturbance Recorder Channels at the earliest.

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.

Deliberation in the Meeting:

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 is 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.

The Sub-Committee noted as above.

Action: NTPC, All utilities as above.

A.15 <u>Frequent voltage dips/tripping on 132 kV line to Umrangshu Plant of</u> <u>Calcom Cement :</u>

During the months of Feb-April'2016 frequent voltage dips/tripping (Annx. II)were recorded leading to production losses of client. Such voltage dips/tripping were not recorded until January, 2016.

In 42nd PCC meeting, it was suggested that the exact reasons for voltage dip can be ascertained only after physical inspection at site. It was decided that joint team of NERTS/AEGCL would visit the plant at a suitable date and submit report to the forum for further action.

Deliberation in the Meeting:

The forum once again requested NERTS and AEGCL to kindly visit ASAP and submit the report to the forum.

The Sub-Committee noted as above. Action: NERTS/AEGCL.

A.16 <u>Submission of Grid Disturbance Report on monthly basis</u>:

As per communication from NPC *vide.* 5/GDR/NPC/CEA/2016 dtd. 25.01.2016 henceforward GD reports in given proforma (Annexure - 16) is required to be submitted on a monthly basis. All the constituents are requested to provide necessary data likewise in a timely manner.

This is for information please.

A.17 Protection System in Tripura and its ramifications in NER grid:

During 40th PCC meeting, SE(O), NERPC stated that the main concern is the protection within Tripura system. As it is learnt that no primary protection system is in place in many of their important lines and any delayed tripping on their system may affect the power supply to Bangladesh. Further, he stated that the issue was brought to the notice of Tripura in many occasions but no positive response was made from Tripura side. After detailed deliberation, the Sub-committee requested NERPC to write letter to highest authority of Tripura with a copy to MoP in this regard.

In 41st PCC meeting, SE(O), NERPC informed the forum that intimation has already been given to Govt. of Tripura, however response in this regard is awaited. The forum viewed seriously the non participation of TSECL representative in PCC meetings of NERPC and requested that this matter to be raised in the next TCC/RPC meeting.

In 121st OCC meeting in agenda item No. D.23 NEEPCO had raised the matter of frequent tripping of AGTCCPP units "Instances of tripping AGTCCPP units in many occasions exists due to nu-cleared downstream disturbance in Tripura system". This has resulted to heavy stress to the machines in addition to reduce the maintenance interval time. Tripura is requested to analyze the fault and rectify the same at the earliest." and in item No. D.15 NERLDC had raised the matter of disturbance in power supply to Bangladesh.

As per deliberation of the Sub-Group (preceding 42nd PCC meeting) for analysis of Grid Disturbances the following were suggested for improvement of the protection system in Tripura:-

Proper protection systems are required urgently for 132 kV Surjamaninagar, 132 kV Udaipur and 132 kV 79 Tilla (Agartala).

In response to TSECL representative's request for CTU help in relay settings at the above stations, NERTS suggested that the following may please be provided:

<A> Feeder details- Name of feeder, kV level, Circuit configuration [D/C or S/C], MVA level(Short Circuit level), % impedance, line length, type of conductor, shortest and longest line length at next station at same voltage level.

 ICT Details- % impedance, tap position.

<C> Existing connected relay details and relay settings.

<D> C.T. and P.T. ratio for all feeders.

The 42nd PCC forum approved the above. Regarding generation interruption at Palatana GBPP it was suggested that to prevent ICT tripping in case of fault in Tripura system, settings of 132 kV Palatana-S M Nagar and 132 kV Palatana- Udaipur lines are to be changed by OTPC in co-ordination with settings at 132 kV S M Nagar and 132 kV Udaipur S/Sn. Members readily agreed to the suggestion.

DGM(AM), NERTS suggested that Protection Audit of Tripura Power System needs to be done and sent to MoP. The forum unanimously agreed and requested to NERPC to kindly initiate action in this regard.

During deliberation it is discussed that Tripura has to ensure physical existence and proper functioning of Main & Back Up Protective Relays for all the elements connected to 79, Tilla and Surjamani Grid Sub Station buses to avoid undesirable tripping of Main Grid Lines including Bangladesh Line during fault in Tripura System. Further, DGM (AM) suggested forming a group of protection experts from AEGCL, POWERGRID and OPTC to visit Sujamani and 79 Tilla Grid Sub Station for activation and implementation of correction setting to available healthy relays. Further, the same group will carry out Protection Audit of Tripura Power System and submit the recommendation for corrective measures to TSECL, for implementation in stipulated time frame, and NERPC, for monitoring on regular basis in OCC & PCC Meeting. However, in case of any delay in implementation matter will be referred to CERC / MoP. The forum unanimously agreed and requested to NERPC to kindly initiate action in this regard.

Deliberation in the Meeting:

Please refer to discussion in Agenda Item No.A.11. The Sub-Committee noted as above.

Action: TSECL/NERPC.

A.18 <u>Multiple trippings in 400 kV Bongaigaon– Balipara corridor during 400 kV</u> <u>Bus-I shutdown at Balipara on 29.04.16:</u>

During 400 kV Bus-I shutdown at Balipara on 29.04.16 the following trippings took place putting the grid in very vulnerable condition on two occasions. Only 400 kV Bongaigaon – Balipara Ckt-II remained in service. Restoration of these lines also took considerable time.

400 kV Bongaigaon – Balipara- III was under outage due to O/V

400 kV Bongaigaon – Balipara- I tripped at 09:23 Hrs and restored at 11:29 Hrs 400 kV Bongaigaon – Balipara- IV tripped at 09:41 Hrs and restored at 09:51 Hrs 400 kV Bongaigaon – Balipara- I tripped at 11:40 Hrs and could not be charged

400 kV Bongaigaon – Balipara- III taken in service at 1146 Hrs

400 kV Bongaigaon – Balipara- IV tripped at 11:40 Hrs and restored at 12:04 Hrs

Similar situation may happen at any time during major shutdown when system remains in depleted condition. In view of above it is requested to all concerned for taking extra care during critical shutdown and also ensures that Senior Executives remain in control room for managing contingent situations.

During the meeting of sub-group(preceding 42nd PCC meeting) consisting of representatives from NERTS, NERLDC, NERPC, MePTCL & NEEPCO on 03.05.2015, DGM(AM), NERTS indicated that multiple tripping of 400 kV Bongaigaon – Balipara lines occurred due to fault in DC system at 400 kV Balipara end, which led to mal-operation of protective system. However, exact location of DC fault could not be verified indicating the system could be prone to more such disturbances. The PCC

sub-committee members requested NERTS to act on it to get the fault rectified, and take appropriate care to prevent such disturbances in future, which endanger security of whole of NER Grid.

Deliberation in the Meeting:

DGM(AM),NERTS informed that the problem occurred due to DC mixing in Tie CB due to wrong schematic. It has been solved and would not recur. The forum decided to drop the agenda item.

The Sub-Committee noted as above.

A.16 <u>Analysis & Discussion on Events, Grid Incidences, Grid Disturbances which</u> <u>occurred in NER Grid w.e.f January'16 to June'16:</u>

A. Disturbances in Arunachal Pradesh System:

Total **21** Nos Disturbances have occurred in Arunachal Pradesh system during the month of January'16 to June'16. (SI No. 4 to 24 of Disturbance Report of NER Grid attached in Annexure-II)

3 Nos disturbances occurred due to tripping of 400 kV Ranagandi- Biswanath Chariali I line, while 400 kV Ranagandi- Biswanath Chariali II line was opened on Over Voltage (SI No. 4, 5 & 6 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of this element, Ziro, Lekhi & Capital area of Arunachal Pradesh and Gohpur area of Assam were separated from rest of NER Grid and subsequently collapsed due to no source in these areas.

Root Cause Analysis:

For SI. No. 4 & 5:

The element tripped on operation of Over Voltage Relay at Ranganadi. Further investigations shall be done after getting DR outputs from Ranganadi and Biswanath Chariali.

For SI. No. 6:

R-Ph CT of Sub Bank-3 of Main Bank Z-1 at BNC failed. Due to un-wanted operation of Distance Protection Relay (DPR) (PD-571) in Zone-1 at Ranganadi, 400 kV Ranganadi - BNC - I line tripped and un wanted operation of Distance Protection in Zone-4 at Balipara resulted in tripping of 400 kV Balipara - BNC III & IV lines. (REL relay setting for Zone-4 for 400 kV Balipara - BNC lines was set instantaneous. For REL relay, Zone-4 is extra and is not required. However, for MICOM relays Zone-4 is reverse zone). Events occurred due to mal-operation of Numerical relays. It has been corrected by NERTS. The PD-571 relay setting details has been given by POWERGRID to NEEPCO. NEEPCO is to check.

Remedial Measure to be taken:

For SI. No. 4 & 5:

Ranganadi is to check overvoltage relay settings further overvoltage relay operation at Ranganadi to be checked by injecting voltage. Reactor at Ranganadi end to be expedited.

For SI. No. 6:

The Zone-4 for the Distance Protection of 400 kV Balipara-BNC - III & IV lines at Balipara have been corrected (disabled). At Biswanath-Chariali end, Tie-breaker was not in service. For operational reliability, Main and Tie both should always be in service. Ranganadi Zone-1 should not have operated. Ranganadi to check and review the setting of the Distance Protection Relay Reason for CT blast occurred to be checked by POWERGRID and intimated to sub-committee / RPC as the event happened in a newly commissioned substation.

Deliberation in the Meeting:

NEEPCO was advised to check overvoltage relay settings, further overvoltage relay operation at Ranganadi to be checked by injecting voltage. The results of the exercise are to be communicated to NERLDC/NERPC.

DGM(AM),NERTS suggested that PD-571 is a static relay and should be replaced by Numerical Relay immediately. The forum requested NEEPCO to initiate procurement of 2 Nos Numerical for 400kV RHEP-BNC I&II at the earliest. It was also suggested to review the installation in Item C.1 of OCC.

CM, NERTS informed that the reasons of CT failure would be communicated to NERPC very soon.

Also, for operational reliability, both Main and Tie breakers should always be in service

The Sub-Committee noted as above. Action: NEEPCO/NERTS.

Khupi Area:

9 Nos disturbances occurred due to tripping of 132 kV Balipara- Khupi line, (SI No. 7 to 15 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of this element, Khupi area of Arunachal Pradesh was separated from rest of NER Grid and subsequently collapsed due to no source in this area.

Root Cause Analysis:

Most of the cases are due to soil erosion resulting in bamboo touching the line and resulting in earth fault.

Remedial Measure to be taken:

Vegetation clearance is to be done by NEEPCO.

Deliberation in the Meeting:

NEEPCO was advised to undertake activities for improvement of ground clearance level at the earliest.

The Sub-Committee noted as above. Action: NEEPCO.

Capital Area:

5 Nos disturbances occurred due to tripping of 132 kV Ranganadi- Lekhi line, (SI No.
16 & 20 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of this element, Lekhi & Capital areas of Arunachal Pradesh & Gohpur area of Assam were separated from rest of NER Grid and subsequently collapsed due to no source in these areas.

Root Cause Analysis:

The O/C and E/F relays are found to operate indiscriminately for downstream faults. Due to vegetation problem in downstream of Lekhi, 132 kV Ranganadi - Lekhi line tripped.

Remedial Measure to be taken:

Vegetation clearance is to be done. Directionality function associated with Earth Fault Relay is to be enabled at Lekhi. Regular patrolling to be done. Lekhi end relay settings to be co-ordinated with downstream relays.

Deliberation in the Meeting:

Please refer to discussion in **Item No. A. 8**. *The Sub-Committee noted as above. Action: DoP Ar. Pradesh.*

Nirjuli Area:

3 Nos disturbances occurred due to tripping of 132 kV Lekhi- Nirjuli line, (SI No. 21 & 23 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of this element, Nirjuli area of Arunachal Pradesh & part of Gohpur area of Assam were separated from rest of NER Grid and subsequently collapsed due to no source in this area.

Root Cause Analysis:

Fault could be in the line section due to vegetation problem. NERTS may check.

Remedial Measure to be taken:

PG should maintain healthiness of the line. Lekhi end relay settings to be co-ordinated with downstream relays.

Deliberation in the Meeting:

CM, NERTS informed that 132kV Nirjuli-Lekhi line is healthy. DoP Ar.Pradesh was advised to check relay settings (including directionality) at Lekhi and properly co-ordinate them with Nirjuli/downstream.

The Sub-Committee noted as above. Action: DoP Ar. Pradesh.

Deomali Area:

1 No disturbance occurred due to tripping of 220 kV AGBPP- Deomali line, (SI No. 24 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of this element, Deomali area of Arunachal Pradesh was separated from rest of NER Grid and subsequently collapsed due to no source in this area.

Root Cause Analysis:

Due to vegetation problem, the line tripped. Arunachal is requested to give further details regarding this tripping.

Remedial Measure to be taken:

Vegetation clearance is to be done by DoP AP.

Deliberation in the Meeting:

DoP Ar. Pradesh was requested to intimate further details in case of this tripping to aid in analysis, and was advised to undertake vegetation clearance activities at the earliest.

The Sub-Committee noted as above. Action: DoP Ar. Pradesh.

B. Disturbances in Assam System:

Total **25** Nos Disturbances have occurred in Assam system during the month of January'16 to June'16. (SI. No. 25 to 50 of Disturbance Report of NER Grid attached in Annexure-I).

Dullavcherra Area:

2 Nos disturbances occurred due to tripping of 132 kV Silchar – Dullavcherra line and 132 kV Dullavcherra- Dharmanagar line, (SI No. 25 & 26 of Disturbance Report of NER Grid attached in Annexure-I).

12 Nos disturbances occurred due to tripping of 132 kV Silchar - Dullavcherra line while 132 kV Dullavcherra- Dharmanagar line was kept open for system requirement,

(SI No. 27 to 38 of Disturbance Report of NER Grid attached in Annexure-I).

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

Root Cause Analysis:

One of the reasons of tripping of these lines is vegetation. It is also suspected that tripping might me due to improper relay co-ordination or its absence thereof at Durlavcherra. Sometimes due to jumper failure and lightning in the line, 132 kV Silchar - Dullavcherra line tripped.

Remedial Measure to be taken:

AEGCL to check Dullavcherra relay setting & timing, and matching with Silchar end. Also it is to be checked whether relays are in service or not at Dullavcherra end AEGCL to check relay settings at Dullavcherra and co-ordinate with downstream end relays. Vegetation problem in the downstream system is be checked by AEGCL & TSECL. Proper maintenance and frequent patrolling are to be done by AEGCL & TSECL. Conditional as well as period maintenance of line accessories to be done by POWERGRID & AEGCL and patrolling also to be done. Tower footing as well as substation earth resistance is to be checked by POWERGRID & AEGCL.

Deliberation in the Meeting:

The forum approved the suggested remedial measures.

The Sub-Committee noted as above.

Action: AEGCL/TSECL/NERTS.

Halflong Area & Umrangshu Area:

4 Nos disturbances occurred due to tripping of 132 kV Haflong (PG)- Haflong(S) line

(SI No. 39 to 42 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of this element, Haflong area of Assam was separated from rest of NER Grid and subsequently collapsed due to no source in this area.

1 Nos disturbance occurred due to tripping of 132 kV Khandong – Umrangshu line and 132 kV Haflong- Jiribam (PG) line (SI No. 43 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of this element, Haflong and Umrangshu areas of Assam was separated from rest of NER Grid and subsequently collapsed due to no source in this area.

Root Cause Analysis:

For SI No. 39 to 42

Phase to phase fault at downstream of Haflong (PG) cleared at Haflong(PG). Only phase-phase fault will likely cause overcurrent, if no earth fault relay operated.

For SI No. 43

Improper relay setting co-ordination at Khandong end.

Remedial Measure to be taken:

For SI No. 39 to 42

Relay co-ordination at downstream level Haflong-AS end to be done by AEGCL in consultation with POWERGRID.

For SI No. 43

NEEPCO to send adopted relays settings at Khandong end to sub-committee, and to be co-ordinate with settings of Umrangshoo and Haflong. Time grading needs to be checked.

Deliberation in the Meeting:

The forum approved the suggested remedial measures.

The Sub-Committee noted as above.

Action: AEGCL/ NERTS.

Gohpur Area:

2 Nos disturbances occurred due to tripping of 132 kV Gohpur- Nirjuli line (SI No. 44

& 45 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of this element, Gohpur area of Assam was separated from rest of NER Grid and subsequently collapsed due to no source in this area.

Root Cause Analysis:

POWERGRID had informed that there was problem of incoming power at Gohpur.

Remedial Measure to be taken:

AEGCL is requested to inform about CT ratio at Gohpur end, and check overcurrent relay at Gohpur end. AEGCL is to furnish detailed report on this incident. If it is issue of overcurrent, then POWERGRID needs to check relay settings at Gohpur / Nirjuli in coordination with AEGCL.

Deliberation in the Meeting:

The forum approved the suggested remedial measures and requested AEGCL and POWERGRID to take up vegetation clearance activities on uphill side in right earnest.

The Sub-Committee noted as above.

Action: AEGCL/ NERTS.

South Assam Area:

1 No disturbance occurred due to tripping of 132 kV Silchar- Panchgram line, 132 kV Silchar – Dullavcherra line, 132 kV Srikona - Panchgram line & 132 kV Silchar - Srikona I & II lines (SI No. 46 of Disturbance Report of NER Grid attached in Annexure-I).

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

Root Cause Analysis:

It was understood from relay flags that 132 kV Silchar - Panchgram line, 132 kV Silchar – Dullavcherra line tripped due to vegetation problem. Likely downstream fault at Dullavcherra end. But 2 unwanted operations at Panchgram end of E/F relay in 132kV Srikona-Panchgram and 132kV Silchar-Panchgram lines.

Remedial Measure to be taken:

AEGCL to check relays at Panchgram end. Directionality of the Earth Fault Relays at Panchgram for 132 kV Silchar – Panchgram line is to be checked. Protection at Srikona for 132 kV Panchgram – Srikona line is to be verified. Vegetation clearance is to be done by AEGCL.

Deliberation in the Meeting:

The forum approved the suggested remedial measures.

The Sub-Committee noted as above. Action: AEGCL.

Pavoi and Depota Area:

3 No disturbance occurred due to tripping of 132 kV Biswanath Charali (PG) -Pavoi I & II lines (SI No. 47 to 49 of Disturbance Report of NER Grid attached in Annexure-I).

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

Root Cause Analysis:

There was jumper failure in 132 kV BNC – Pavoi I line. 132 kV BNC – Pavoi II line tripped on overloading subsequently. 132 kV BNC - Pavoi I & II lines are highly loaded during peak hours. Some more incidents of jumper failure have occurred in these lines.

Remedial Measure to be taken:

Alternate connectivity between Balipara (PG) and Pavoi is to be explored. Meanwhile, POWERGRID has carried out jumper tightening in all locations of the 132 kV BNC-Pavoi I & II lines. If such tripping still repeated, POWERGRID have to do Jumper Strengthening for this section.

Deliberation in the Meeting:

The forum approved the suggested remedial measures and referred the matter of alternate connectivity to OCC.

The Sub-Committee noted as above. Action: NERPC/ NERTS.

Dhaligaon Area:

1 No disturbance occurred due to tripping of 132 kV BTPS- Dhaligaon I & II lines (SI No. 50 of Disturbance Report of NER Grid attached in Annexure-I).

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

Root Cause Analysis:

Likely fault in line. A/R to be installed at both end. AEGCL to give relay indications at BTPS end.

Remedial Measure to be taken:

Since the lines are mostly overloaded, up-gradation to HTLS to be expedited. The matter may be referred to OCC forum of NERPC.

Deliberation in the Meeting:

The forum referred the matter of up-gradation to OCC and requested AEGCL to provide DR, relay flags etc.

The Sub-Committee noted as above. Action: NERPC/AEGCL.

C. Disturbances in Manipur System:

Total **40 Nos.** Disturbances have occurred in Manipur system during the month of January'16 to June'16. (SI No. 51 to 90 of Disturbance Report of NER Grid attached in Annexure-I).

Capital & Karong Areas:

25 Nos disturbances occurred due to tripping of 132 kV Imphal (PG)- Imphal (S) I & II lines, (SI No. 51 to 75 of Disturbance Report of NER Grid attached in Annexure-I).

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

Root Cause Analysis:

Fault was in Manipur system and cleared at Imphal (PG). Tripping of incoming feeders occurred due to non-clearance of fault within Manipur system.

Remedial Measure to be taken:

Relay coordination has to be done by MSPCL in consultation with POWERGRID. PG/Manipur to do relay co-ordination in downstream level. But existing problem in Breaker at Imphal end of Karong – Imphal line. MSPCL to rectify. **MSPCL should not change relay settings without intimation to forum, after it has been co-ordinated with POWERGRID**. Directional feature of each protection at Imphal (Manipur) is to be checked. Vegetation clearance is to be done by MSPCL.

Deliberation in the Meeting:

MSPCL was advised to place in PCC forum any changes to the already coordinated relay settings at 132 kV Imphal station. MSPCL was also advised to replace Karong end Circuit-Breaker of 132 kV Yurembam (Imphal - MSPCL) - Karong feeder (to be monitored in OCC).

CM, NERTS opined that minimum 400ms faster operation of downstream relays should be ensured to prevent faults reflecting to the 132kV system. The members unanimously decided that after setting has been co-ordinated any changes done unilaterally have to be communicated to the forum before implementation.

DGM(AM),NERTS suggested that in order to address the issue permanently a meeting is to be convened for relay setting co-ordination as soon as possible. The forum requested NERPC to collect necessary protection data upto 33kV level of all state substations connected to ISTS stations and then convene meeting before 31.08.2016.

The Sub-Committee noted as above.

Action: NERPC/MSPCL.

Ningthoukhong Area:

1 No. disturbance occurred due to tripping of 132 kV Loktak- Ningthoukhong line & 132 kV Loktak- Imphal lines, (SI No. 76 of Disturbance Report of NER Grid attached in Annexure-I).

8 Nos. disturbances occurred due to tripping of 132 kV Loktak- Ningthoukhong line while 132 kV Imphal (PG) - Ningthoukhong line kept open for system constraint, (SI No. 77 to 84 of Disturbance Report of NER Grid attached in Annexure-I).

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

Root Cause Analysis:

Likely fault in line section, since relay indication at Loktak end is Zone-1. But, Ningthoukong end E/F relay should not have operated since it is radial line. Due to vegetation problem, 132 kV Loktak - Ningthoukhong line tripped. For further analysis, SLDC, MSPCL shall furnish relay indication pertaining to their end.

Remedial Measure to be taken:

Vegetation clearance and tower footing resistance are to be checked by MSPCL. POWERGRID is requested to visit Ningthoukhong and check relay co-ordination after renovation has been done by MSPCL. MSPCL to check and Ningthoukhong S/s upgradation to be expedited

Deliberation in the Meeting:

The forum approved the suggested remedial measures.

The Sub-Committee noted as above.

Action: MSPCL/NERTS.

Rengpang Area:

6 Nos. disturbances occurred due to tripping of 132 kV Loktak – Rengpang line, (SI No. 85 to 90 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of this element, Rengpang area of Manipur was separated from rest of NER Grid and subsequently collapsed due to no source in this area.

Root Cause Analysis:

Due to vegetation problem in the line, 132 kV Loktak - Rengpang line tripped.

Remedial Measure to be taken:

Vegetation clearance is to be done by MSPCL.

Deliberation in the Meeting:

MSPCL was advised to undertake vegetation clearance activities at the earliest.

The Sub-Committee noted as above.

Action: MSPCL.

D. Disturbances in Meghalaya System:

Total **53** Nos. Disturbances have occurred in Meghalaya system during the month of January'16 to June'16. (SI No. 91 to 143 of Disturbance Report of NER Grid attached in Annexure-I).

Khliehriat Area:

48 Nos disturbances occurred due to tripping of 132 kV Khliehriat (PG)- Khliehriat (MePTCL) I & II lines, (SI No. 91 to 138 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of these elements, Khliehriat area of Meghalaya were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch.

Root Cause Analysis:

132 kV Khliehriat (PG) - Khliehriat (ME) I & II lines tripped due to non-clearance of fault at downstream of Khliehriat (ME) system. Fault generated in downstream of Khliehriat (ME) system due to vegetation or lightning.

Remedial Measure to be taken:

Earthing work related to Khliehriat (ME) substations is to be completed as the earliest. Tower footing resistance is also to be checked and in case of more than 10 ohms, proper earthing has to be done by MePTCL. Relay settings of Meghalaya substations are to be checked by MePTCL in coordination with POWERGRID after the completion of earthing works.

Action taken by MePTCL:

Earthing work at Khliehriat under jurisdiction of MePTCL vizz. 132 kV switchyard, is completed (Resistance is about 0.7 ohms). But, distribution side work is not completed. MePTCL is going for procurement of new relays. MePTCL to install Numerical relays on Leshka feeder on test basis, by 14th July (S/D at Leshka is not possible till Dam is full. Date to be finalized by SLDC). Distribution side viz. 33 kV switchyard work to be taken up urgently. NERPC to write to Director, MePDCL.

Deliberation in the Meeting:

MePTCL informed the forum that on 18.07.2016 Numerical Relay would be installed for Leshka feeder. The results would be communicated to the forum in due course of time. The forum approved the suggested remedial measures like checking of tower footing resistance, relay coordination and 33kV side earthing completion.

The Sub-Committee noted as above.

Action: MeECL.

Byrnihat Area:

2 No. disturbances occurred due to tripping of 132 kV EPIP II - Byr1nihat I & II lines, (SI No. 139 & 140 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of these elements, Meghalaya system except Khliehriat area, Lumnshnong area and Mendipathar area were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch.

Root Cause Analysis:

The 12th June tripping was due to conductor snapping in B-phase at Gantry point. Indicates hardware failure. The tripping reasons for 16th June is to intimated by MePTCL.

Remedial Measure to be taken:

S/Sn hardware at gantry & bays to be strengthened.

The Sub-Group viewed seriously the non-restoration of reactor at Byrnihat and referred the matter to OCC.

Deliberation in the Meeting:

MeECL informed that tripping on 16th June 2016 was spurious tripping and exact cause could not be ascertained. The forum approved the remedial measures and requested MeECL to do likewise.

The Sub-Committee noted as above. Action: MeECL.

Mendipathar & Nangalbibra Area:

2 Nos. disturbances occurred due to tripping of 132 kV Agia- Mendipathar or 132 kV Mendipathar- Nangalbibra lines, **(SI No. 141 & 142 of Disturbance Report of NER Grid attached in Annexure)**.

Due to tripping of this element, Mendipathar & Nangalbibra areas of Meghalaya was separated from rest of NER Grid and subsequently collapsed due to no source in this area.

Root Cause Analysis:

Due to vegetation problem, the lines were tripped. Relay flags and DR outputs to be submitted by Agia (AEGCL), Nangalbibra (MePTCL) & Medipathar (MePTCL) for analysis. Relay flags at Agia to be given by Assam and at Mendipathar to be given by MePTCL

Remedial Measure to be taken:

Vegetation clearance is to be done by MePTCL.

Deliberation in the Meeting:

AEGCL and MePTCL were requested to submit DR & relay flags for proper analysis. Tower footing as well as substation earth resistance to be checked by MePTCL. In case of frequent lightning, corrective measures like identification of lightning prone areas and installation of Line LA to be explored.

The Sub-Committee noted as above. Action: MeECL.

Lumshnong Area:

1 No. disturbances occurred due to tripping of 132 kV Panchgram - Lumshnong line, while 132 kV Lumshnong - Khliehriat line kept open for system requirement. (SI No.
143 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of this element, Lumshnong area of Meghalaya was separated from rest of NER Grid and subsequently collapsed due to no source in this area.

Root Cause Analysis:

Due to vegetation problem in the line, 132 kV Lumshnong - Panchgram line tripped.

Remedial Measure to be taken:

Vegetation clearance is to be done by MePTCL & AEGCL. Clearance may be taken up by MePTCL and AEGCL.

Deliberation in the Meeting:

AEGCL and MeECL were advised to undertake vegetation clearance activities at the earliest.

The Sub-Committee noted as above. Action: MeECL/AEGCL.

E. Disturbances in Mizoram System:

Total **18** Nos. Disturbances have occurred in Mizoram system during the month of January'16 to June'16. (SI No. 144 to 161 of Disturbance Report of NER Grid attached in Annexure-I).

3 Nos disturbances occurred due to tripping of 132 kV Aizwal - Jiribam line, 132 kV Aizwal - Kolasib line and 132 kV Aizwal - Kumarghat lines, (SI No. 144 to 146 of Disturbance Report of NER Grid attached in Annexure-I).

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.

Root Cause Analysis:

POWERGRID informed that the lines tripped due to multiple strokes of lighting. On 31st March 2016 multiple lightning stroke resulting in simulatanous tripping of all 3 lines at both ends.

On 27th June flashover in B-phase Substation bus insulator, but insulator did not fail. Issue still under investigation by NERTS.

Remedial Measure to be taken:

Tower footing as well as substation earth resistance is to be checked by POWERGRID & P&ED, Mizoram. In case of lightning prone area, line arrester has to be installed. PID scanning at Aizawl S/Sn to be done by NERTS

Deliberation in the Meeting:

The forum approved the suggested remedial measures.

The Sub-Committee noted as above.

Action: NERTS/DoP Mizoram.

Kolasib Area:

1 Nos disturbance occurred due to tripping of 132 kV Kolasib - Badarpur line & 132 kV Kolasib - Aizwal lines, (SI No. 147 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of these elements, Kolasib area of Mizoram were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch.

Root Cause Analysis:

Could be Kolasib downstream fault. NERTS/ Mizoram to further check

Remedial Measure to be taken:

Vegetation clearance has to done by P&E Deptt, Mizoram and POWERGRID. Relay settings of Kolasib as well as Mizoram downstream stations has to be investigated by P&E Dept, Mizoram and POWERGRID.

Deliberation in the Meeting:

The forum approved the suggested remedial measures.

The Sub-Committee noted as above.

Action: NERTS/DoP Mizoram.

Zuangtui Area:

14 No. disturbances occurred due to tripping of 132 kV Aizawl - Zuangtui line, (SI No. 148 & 161 of Disturbance Report of NER Grid attached in Annexure-I).

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.

Root Cause Analysis:

The over current and earth fault relay settings for the outgoing feeders at Zuangtui were verified and their operating times were found to be on higher side. Since line passes mostly through town (vegetation is not issue), likely fault is in downstream due to vegetation and is getting cleared at Aizwal (PG).

Remedial Measure to be taken:

The over current and earth fault relay settings for the outgoing feeders at Zuangtui have been reviewed and communicated to P&ED, Mizoram for implementation. Status is to be informed by P&E Deptt, Mizoram. Vegetation clearance is to be done by P&ED, Mizoram. The co-ordinated relay settings for Zuangtui S/Sn calculated by NERTS were given to DoP Mizoram but it seems that it was not implemented. DoP Mizoram may please elaborate.

Deliberation in the Meeting:

SE, DoP Mizoram informed that the settings suggested by NERTS would be reviewed by DoP Mizoram by 31.07.2016 and would revert back to the forum with their acquiescence/views The Sub-Committee noted as above. Action: DoP Mizoram.

F. Disturbances in Nagaland System:

Total **32** Nos. Disturbances have occurred in Nagaland system during the month of January'16 to June'16. (SI No. 162 to 193 of Disturbance Report of NER Grid attached in Annexure-I).

Mokokchung Area:

4 Nos disturbances occurred due to tripping of 132 kV Doyang - Mokokchung (NA) line, (SI No. 162 to 165 of Disturbance Report of NER Grid attached in Annexure).

Due to tripping of this element, Mokokchung area of Nagaland was separated from rest of NER Grid and subsequently collapsed due to no source in this area.

Root Cause Analysis:

Due to vegetation problem, 132 kV Doyang - Mokokchung (NA) line tripped.

Remedial Measure to be taken:

Vegetation clearance is to be done by DoP, Nagaland.

Deliberation in the Meeting:

The forum approved the suggested remedial measures. In addition it suggested that relay coordination of downstream feeders from 132 kV Mokokchung to be done by DoP, Nagaland in consultation with POWERGRID & NEEPCO.

The Sub-Committee noted as above.

Action: NERTS/DoP Nagaland.

Dimapur Area:

2 No. disturbances occurred due to tripping of 132 kV Dimapur (PG) - Dimapur (NA) I & II lines, (SI No. 166 & 167 of Disturbance Report of NER Grid attached in Annexure-I).

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

Root Cause Analysis:

This is case of phase to phase fault and fault was cleared at Dimapur (PG). Phase phase fault seems the only possibility in case of non-operation of earth fault. Can be phase-phase fault. DoP, Nagaland to confirm further

Remedial Measure to be taken:

Relay settings of downstream stations of Nagaland is to be checked by DoP, Nagaland in consultation with POWERGRID. POWERGRID is to elaborate on General trip relay indication.

Deliberation in the Meeting:

The forum requested NERPC to convene meeting for relay setting coordination at the earliest to solve the pertaining issues.

The Sub-Committee noted as above. Action: NERTS/DoP Nagaland/NERPC.

Capital Area:

26 No. disturbances occurred due to tripping of 132 kV Dimapur (PG) - Kohima line, **(SI No. 168 to 193 of Disturbance Report of NER Grid attached in Annexure-I)**. Due to tripping of this element, Capital area of Nagaland was separated from rest of NER Grid and subsequently collapsed due to no source in this area.

Root Cause Analysis:

Due to vegetation problem, 132 kV Dimapur (PG) - Kohima line tripped.

Remedial Measure to be taken:

Vegetation clearance is to be done by DoP Nagaland. Relay settings of downstream elements is to be checked by DoP Nagaland in consultation with POWERGRID. Fault may be also in Kohima – Karong line which remains idle charged. Protections at Kohima end of the line to be kept properly.

Deliberation in the Meeting:

The forum approved the suggested remedial measures.

The Sub-Committee noted as above.

Action: NERTS/DoP Nagaland.

G. Disturbances in Tripura System:

Total **2** Nos. Disturbances have occurred in Tripura system during the month of January'16 to June'16. (SI No. 194 & 195 of Disturbance Report of NER Grid attached in Annexure-I).

2 Nos disturbances occurred due to tripping of multiple trippings of lines in Tripura system as mention in the disturbance report

Due to tripping of multiple elements, part of Tripura system, part of Bangladesh system (Comilla area) and AGTPP system were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch.

Root Cause Analysis:

Due to non-clearance of downstream fault in the Tripura System, 132 kV AGTPP - Agartala I & II line tripped at AGTPP end and 132 kV AGTPP - Kumarghat line tripped at Kumarghat end.

Remedial Measure to be taken:

Zone-III time delay of 132 kV AGTPP - Kumarghat line to be increased by POWERGRID so that 132 kV Kumarghat - AGTPP line does not trip along with 132 kV AGTPP - Agartala I & II lines, to keep integrated operation of AGTPP system. NEEPCO is to furnish DR of the event at the earliest for further analysis. Agartala relay setting is to be checked by TSECL in co-ordination with POWERGRID. POWERGRID, NEEPCO, AEGCL & OTPC are requested to conduct protection audit in substations of TSECL.

Deliberation in the Meeting:

After detailed deliberation the following were suggested:

- Vegetation clearance to be done by TSECL.
- Electro mechanical relays in Tripura system to be replaced by Numerical relays at the earliest by TSECL.
- Co-ordination of relays to be ensured by TSECL to prevent tripping from remote ends.
- Committee formed by NERPC comprising of OTPC, POWERGRID, NEEPCO & AEGCL to visit Tripura and conduct protection audit of 132 kV Agartala (TSECL) and 132 kV Surjamaninagar (TSECL) substations to identify protection system deficiencies.
- Zone-III time delay of 132 kV AGTPP Kumarghat line to be increased by POWERGRID so that 132 kV Kumarghat - AGTPP line does not trip along with 132 kV AGTPP - Agartala I&II lines, to save generation of AGTPP.
- NEEPCO, TSECL to furnish relay indications for every tripping for analysis.

The Sub-Committee noted as above. Action: NERTS/TSECL/NEEPCO.

H. Power Station Blackout:

Loktak Power Plant:

1 No disturbances occurred due to tripping of 132 kV Loktak - Imphal(PG) line, 132 kV Loktak - Jiribam line & 132 Loktak - Ningthoukhong line, (SI No. 197 of Disturbance Report of NER Grid attached in Annexure-I).

Due to evacuation problem, Loktak Power Station was blacked out.

Root Cause Analysis:

Due to non-operation of any protective relay at Loktak it could not be ascertained whether the fault was in 132 kV Jiribam - Loktak line or 132 kV Loktak - Ningthoukhong line. Fault was in Jbm-Loktak line. This further caused O/C in Imphal-loktak end. Loktak may furnish DRs for all the lines. DR from Loktak end shows overcurrent (I>1).

Remedial Measure to be taken:

Loktak is to furnish detailed report explaining non clearance of fault at Loktak end. Loktak & Imphal(PG) shall submit DR output pertaining to the event. Standardisation of DR to be taken up by Loktak-NHPC.

Deliberation in the Meeting:

The forum approved the suggested remedial measures.

The Sub-Committee noted as above.

Action: NHPC.

I. AGTPP Power Plant:

1 No disturbances occurred due to tripping of 132 kV AGTPP - Agartala I & II lines & 132 kV AGTPP - Kumarghat line, (SI No. 198 of Disturbance Report of NER Grid attached in Annexure-I).

Due to evacuation problem, all running units of AGTPP tripped.

Root Cause Analysis:

Due to non-clearance of downstream fault in the Tripura System at Agartala, 132 kV AGTPP - Agartala I & II line tripped at AGTPP and 132 kV AGTPP - Kumarghat line tripped at Kumarghat end. At AGTPP, Zone-III indicates fault was in Tripura system.

Remedial Measure to be taken:

Zone-III time delay of 132 kV AGTPP - Kumarghat line to be increased by POWERGRID so that 132 kV Kumarghat - AGTPP line does not trip along with 132 kV AGTPP - Agartala I & II lines, keep integrated operation of AGTPP. NEEPCO is to

furnish DR of the event at the earliest for further analysis. Agartala relay setting is to be checked by TSECL in cordination with POWERGRID. POWERGRID, NEEPCO, AEGCL & OTPC are requested to conduct protection audit in substations of TSECL. Relay co-ordination b/w AGTPP and Tripura system to be done. K'ghat end time setting to be co-ordinated with AGTPP end

Deliberation in the Meeting:

Please refer to discussion in Item G above.

The Sub-Committee noted as above. Action: NERTS/TSECL/NEEPCO.

J. Doyang Power Plant:

1 No disturbance occurred due to tripping of 132 kV Dimapur - Doyang II line & 132 kV Doyang - Mokokchung line while 132 kV Dimapur - Doyang I line is under Shutdown. (SI No. 199 of Disturbance Report of NER Grid attached in Annexure).

1 No disturbance occurred due to tripping of 132 kV Dimapur - Doyang II line while 132 kV Dimapur - Doyang I line is under Shutdown & 132 kV Doyang- Mokokchung line was not restored after tripping. (SI No. 200 of Disturbance Report of NER Grid attached in Annexure-I).

Due to evacuation problem, Doyang Power Station was blacked out.

Root Cause Analysis:

NEEPCO to check and inform with further details

Deliberation in the Meeting:

The forum requested NEEPCO to provide DR, relay flag, EL etc. for further analysis. CM, NERTS stated that in order to prevent faster operation of protection for 132 kV Doyang-Mokokchung for downstream faults relay settings at DHEP (NEEPCO) and Mokokchung(NG) are to be provided.

The Sub-Committee noted as above.

Action: NERTS/DoP Nagaland/NEEPCO.

A.20 <u>Maintenance Procedure adopted by utilities:</u>

It has been observed that number of Grid Disturbances in NER occurred due to failure of the equipment. As per Section 20 of the Grid Standards Regulation, 2010 of CEA, each entity shall prepare maintenance procedure for each equipment in line with manufactures recommendations and prudent utility practices. It is requested to all utilities of NER to follow their maintenance schedule as per maintenance procedures. It is also requested to utilities who have no maintenance procedures, to prepare and finalize maintenance procedures at the earliest.

Deliberation in the Meeting:

DGM, SO-II, NERLDC requested the forum to develop Model Maintenance Procedure for all power utilities as mandated by CEA Grid Standards regulations, Sec.20. After detailed deliberation it was decided that before maintenance procedure be finalised an assessment of testing equipment available with state utilities need to be made. Only after that a committee may be setup to streamline maintenance procedure.

All utilities to submit their testing equipment details for purpose of carrying out maintenance activities, by next OCC meeting.

The Sub-Committee noted as above. Action: All state utilities.

Date and Venue of next PCC

It is proposed to hold the 44th PCC meeting of NERPC in the second week of September, 2016. The exact venue will be intimated in due course.

The meeting ended with thanks to the chair.

<u>Annexure-I</u>

List of Participants in the 43rd PCC Meeting held on 13/07/2016

SN	Name & Designation	Organization	Contact No.
1.	Sh. N. Perme, EE, SLDC	Ar. Pradesh	09436288643
2.	Sh. Karuna Sharma, AGM, AEGCL	Assam	-
3.	Sh. G. Tapan Kumar Sharma, Manager	Manipur	08974138850
4.	Sh. Themchan Woleng, Manager	Manipur	08731000143
5.	Sh. A.G. Tham, AEE	Meghalaya	09774664034
6.	Sh. B. Nikhla, EE	Meghalaya	-
7.	Sh. David Ramnunsanga	Mizoram	09436155836
8.	Sh. Rokobeito Iralu, SDO (Trans.)	Nagaland	09436832020
	No Representative	Tripura	-
9.	Sh. P. Kanungo, DGM (AM)	PGCIL	09436302823
10.	Sh. H. Talukdar, Ch. Manager, AM	PGCIL	09436335237
11.	Sh. Amaresh Mallick, DGM (SO_II)	NERLDC	09436302720
12.	Sh. Rahul Chakraborti, Sr. Engr. (SO-II)	NERLDC	09402507543
13.	Sh. Bishwajit Medhi, Manager (SO-I)	NERLDC	09436335376
14.	Sh. Prasenjit Phookan, DGM (E/M)	NEEPCO	09435380415
15.	Sh. Joypal Roy. Sr. Mgr. (E/M)	NEEPCO	09435577726
16.	Sh. Alokesh Hazarika, Executive (O&M)	OTPC	07085060480
17.	Sh. E. Ngullie, DGM (O)	NTPC	09435139531
18.	Sh. P.K. Mishra, MS	NERPC	09968380242
19.	Sh. B. Lyngkhoi, Director/S.E (O)	NERPC	09436163419
20.	Sh. L.B. Muanthang, Director/SE (P&SS)	NERPC	09436731488
21.	Sh. S. Mukherjee, AEE	NERPC	08794277306
22.	Sh. S. Ranjan, AE	NERPC	08794276168

									ANN	IEXURE-I			
			List of G	rid Disturba	nces in North	-Eastern Regi	onal Grid d	luring Jan	uary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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 (V/N)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	अनुसार / Category as per	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Bokajan - Golaghat	AEGCL		Bokajan	No tripping	Not Furnished	No	No			2/25/2016 10:55	No SPS	
	152 KV Dokajan - Golagnat	ALUCL		Golaghat	DP, ZI, R-E	Not Furnished	No	No			2/25/2010 10.55	10 51 5	
	220 kV Misa - Mariani(AS)	DOWEDCDID	2/25/2016 10.20	Misa	Not Furnished	Not Furnished	No	No			2/25/2016 10-25	N _a CDC	
	220 kV Samaguri - Mariani	POWERGRID	2/25/2016 10:20	Mariani (AS)	Tripped	Lockout	No	No			2/25/2016 10:35	No SPS	
		AFCOI		Samaguri		Not Furnished	No	No	Loss of Load:		0/06/0016 10 50	NL GDG	
	220 KV Samaguri - Mariani	AEGCL		Mariani	DP, ZI, R-E	Not Furnished	No	No	0& Loss of		2/26/2016 13:50	No SPS	0.025
	220 kV AGBPP - Mariani(PG)	POWERGRID	2/25/2016 10:22	AGBPP	Direct Trip received	Not Furnished	No	No	Generation: 124	GD-II	2/25/2016 18:13	No SPS	0.035
	``´			Mariani (PG)	Over Voltage		No	No					
	AGBPP U 3	NEEPCO	2/25/2016 10:20	AGBPP	Tripped on	Not applicable	No	No			2/25/2016 10:37	No SPS	
	AGBPP U 4	NEEPCO	2/25/2016 10:20	AGBPP		Not applicable	No	No			2/25/2016 11:15	No SPS	
	AGBPP U 8	NEEPCO	2/25/2016 10:20	AGBPP	frequency in	Not applicable	No	No			2/25/2016 12:03	No SPS	
	FIR by the constituent	No											
1	Brief Description of the Incident	AGBPP - Maria 25.02.16,220 kV Due to the trippi	ea and AGBPP syst ni(PG) lines(220 K / Samaguri-Mariani ing these elements, 8 tripped on high fr	V Misa -Marian (AS), 220 Misa Upper Assam a	ni(PG) was under -Mariani(AS), 13	r planned SD from 32 kV Bokajan - 0	n 0650 hrs and Golaghat lines	d 132 kV Ma tripped. 220	riani - Mokokcl kV AGBPP-M	nung line was ariani(PG) lin	s under long outage ne tripped on O/V s). At 1020 Hi ubsequently a	rs on at 1022 hrs.
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent Ger	neration : 1029	MW , पूर्ववृत्ताः	लोड/ Antecedent	Load : 1335	MW)					
	Restoration Details	Upper Assam ar Hrs on 25.02.16	ea was synchronize	d to rest of the l	NER grid at Mari	ani(AS) at aroun	d 10:35 Hrs of	n 25.02.16 th	rough 220 kV N	/lisa - Marian	ii(AS) line.AGBPP	unit-3 restore	ed at 10:37
	Root Cause		on problem in the lin OTI WTI of line rea		•					ine tripped du	ue to mal operation	at Misa(PG)	during the
	Remedial Measures	Vegetation clear	rance to be done by	AEGCL.									

			List of G	rid Disturba	nces in North	-Eastern Regi	onal Grid o	during Jan	uary 2016					
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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 (V/N)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU	
	400/220/33 kV , 315 MVA ICT at Bongaigaon	POWERGRID		Bongaigaon	R-Ph , Over Current	Not applicable	Yes	No			3/16/2016 18:43	No SPS		
	220 kV Agia -Azara	AEGCL	3/16/2016 18:17	Agia	Over current	Not applicable	No	No	Loss of Load:	GD-II	3/16/2016 18:53	No SPS	0.112	
	220 K 7 115W 112WU	/ LOOL	5,10,2010 10.17	Azara	No tripping	Not applicable	No	No	259		2,10,2010 10.33	110 51 5	0.112	
	220 kV Boko -Azara	AEGCL		Boko	Over current	Not applicable	No	No			3/16/2016 19:05	No SPS		
	FIR by the constituent	Yes		Azara	No tripping	Not applicable	No	No						
	Brief Description of the Incident	 Agia line and 2 400/220 kV, 200 and 400 kV Bali opened to reduce Dalkhola(WB)-I opening of the I0 current protection closing. ICT – II Bongaigaon. The Azara – Boko line 	art of NER Grid (Dhaligaon, Agia and Boko areas of Assam and Nangalbibra area of Meghalaya), North Bengal system, Sikkim system and Bhutan Grid(except Motonga load) were onnected with rest of Indian Grid through 400/220/33 kV,315 MVA Bongaigaon ICT, 400/220 kV,315 MVA ICT I&II at Binaguri , 220 kV Bus coupler at Dalkhola ,220 kV Azara Agia line and 220 kV Azara – Boko line(132 kV Nangalbibra-Nongstoin line,132 kV Rangia-Bornagar line & 132 kV Rangia-Nalbari line kept open for system requirement and 00/220 kV, 200 MVA ICT-I at Malbase was taken in shutdown at 16:27 hrs due to problem in R phase LA,400 kV Binaguri – Bongaigaon – III, 400 kV Balipara – Bongaigaon – III ad 400 kV Balipara – Biswanath Chariali – III were open due to over-voltage, 400 KV Patna- Kishanganj I & II lines were under breakdown).At 17:57 hrs, Dakhola Bus coupler was pened to reduce loading of 220 kV Purnea - New Purnea D/C which was around 180 MW per circuit. With the opening of the bus coupler at Dalkhola, 220 kV Dalkhola - lalkhola(WB)-D/C and 220 kV Dakhoila - Siliguri were on one bus while 220 kV Dalkhola - Purnea - D/C and Dalkhola - Malda - D/c were on the other bus. Immediately after pening of the ICT at Malbase(Bhutan), flow on Binaguri ICTs increased from around 200 MW to about 300 MW flow (per ICT). The ICT-I tripped at 18:09 hrs due to Back-up over urrent protection in B phase.At 18:15 Hr Dalkhola bus coupler was again closed to reduce loading of the Binaguri tripped at 18:17 hrs due to the resulting over-loade. Due to the tripping of these two ICTs, the load being met by these ICTs shifted to the 400/220 kV ICT at ongaigaon. The ICT which was already loaded to around 250 MW further over-loaded and tripped at 18:09 hrs. At 18:17 Hrs on 16.03.16 , 220 kV Azara – Agia line and 220 kV zara – Boko line tripped. Due to tripping of these elements, part of NER Grid (Dhaligaon, Agia and Boko areas of Assam and Nangalbibra area of Meghalaya), North Bengal system, ikikim system and Bhutan Grid(except Motonga load) separated from rest of I											
	Antecedent Conditions of NER Grid Restoration Details	(पूर्ववृत्ता उत्पादन/ Antecedent Generation : 1593 MW, पूर्ववृत्ता लोड/ Antecedent Load : 2040 MW) Power extended to Salakati(PG) through 400/220 kV, 315 MVA ICT at Bongaigaon at 18:43 Hrs on 16.03.16.Power extended to BTPS through 220 kV BTPS - Salakati line I at 18:56 Hrs on 16.03.16.Power extended to Agia through 220 kV Agia - Azara line at 18:53 Hrs on 16.03.16.Power extended to Boko through 220 kV Boko - Azara line at 19:05 Hrs on 16.03.16												
	Deet Correct	16.03.16		0 0	20 A V Ligita Like		115 011 10.05.1	0.1 Ower exte		iiougii 220 k	V Boko -Azara line			
	Root Cause Remedial Measures	16.03.16 Due to fault in F	Eastern Region syste	em	C					nougn 220 k	V Boko -Azara line			
	Root Cause Remedial Measures 400 kV BgTPP - Bongaigaon I	16.03.16 Due to fault in F		em	the earliest to ave DP, ZII, B-E						V Boko -Azara line 4/16/2016 15:01			
	Remedial Measures 400 kV BgTPP -	16.03.16 Due to fault in E ICTs at Bongaig	Eastern Region syste aon,NTPC to be co 16/04/2016	em mmissioned at BgTPP	the earliest to ave DP, ZII, B-E DP, ZI, B-E DP, ZII, B-E	oid overloading o Not Furnished	f Bongaigaon Yes	ICT. No						

			List of G	rid Disturba	nces in North	-Eastern Regi	onal Grid d	luring Jan	uary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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 (V/N)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	या बहाली / Date and time of restoration provided by CR operator	SPS	एमयू में हानि/ Loss in MU
	Siliguri III	ENICL	12:03:06.878	New Siliguri	DP, ZII, B-E	Not applicable	No	No			4/10/2010 10.40		
	400 kV BgTPP - Bongaigaon II	POWERGRID	16/04/2016 12:03:30.091	BgTPP Bongaigaon	DP, ZII, B-E Direct Trip received	Not applicable Not applicable	Yes Yes	No No			4/16/2016 14:18		
	400 kV Bongaigaon - Azara	NETC & AEGCL	16/04/2016 12:03:30.464	Bongaigaon Azara	11 0	Not applicable Not applicable	No Yes	No No			4/16/2016 15:18		
	400/220 kV 315MVA ICT at Bangaigaon	POWERGRID	16/04/2016 12:03:36.784	Bangaigaon	Back up O/C on HV side	Not applicable	Yes	No	Loss of Load: 973 (84%) &		4/16/2016 12:31	SPS I & II	
3	400 kV Bongaigaon - New Siliguri I	POWERGRID	16/04/2016 12:03:36.827	Bongaigaon	Direct Trip received	Not Furnished	Yes	No	Loss of Generation:	GD-V	4/16/2016 12:51	operated sucessfully	3.82
	Singun			New Siliguri	DP, ZII, B-E	Not Furnished	No	No	1125 (93%)				
	400 kV Bongaigaon - New	POWERGRID	16/04/2016	Bongaigaon	Tripped	Not Furnished	Yes	No			4/18/2016 18:42		
	Siliguri II		12:03:37.964	New Siliguri		Not Furnished	No	No					
	400 kV Bongaigaon - New	ENICL	16/04/2016	Bongaigaon	Tripped	Not Furnished	Yes	No			4/16/2016 12:30		
	Siliguri IV		12:03:55.727	New Siliguri Biswanath	DP, ZII, B-E Under	Not Furnished	No	No					
	+/- 800 kV Biswanath Charali-Agra I	POWERGRID 16/04/2016	Charali	Votage,DC	Not applicable	No	Yes			4/17/2016 20:30			
			12:03:45.000	Agra	Side	Not applicable	No	No					
	220 kV BTPS - Salakati I POWERGRID	4/16/2016 12:03	BTPS Salakati		Not Furnished Not Furnished	No No	No No			4/16/2016 13:35			
				BTPS	Not Furnished		No	No					
	220 kV BTPS - Salakati II	POWERGRID	4/16/2016 12:03	Salakati		Not Furnished	No	No			4/16/2016 12:50		

			List of G	rid Disturba	nces in North	-Eastern Regi	onal Grid d	luring Jan	uary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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 (V/N)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	अनुसार / Category as per	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	SPS	एमयू में हानि/ Loss in MU
	400 kV Balipara -	POWERGRID		Balipara	Not Furnished		No	No	Loss of Load:		4/16/2016 13:16	SPS I & II	
	Bongaigaon I		16/04/2016	Bongaigaon	Not Furnished		No	No	973 (84%) & Loss of	GD-V		operated	3.82
	400 kV Balipara - Bongaigaon II	POWERGRID	12:03:00.000	Balipara Bongaigaon	Not Furnished Not Furnished		No No	No No	Generation:		4/16/2016 13:33	sucessfully	
	FIR by the constituent	Yes(Assam.Meg	ghalaya,Tripura,AG	00			110	110			l		
3	Brief Description of the Incident	+/- 800 kV HVI Hrs, 400kV Bor Bongaigaon-Ne line tripped at 12 around 12:03:36 Bongaigaon end NER grid(from load generation 60 MW respecti	n synchronism with DC Biswanath Char agaigaon-Balipara li w Siliguri III line tri 2:03:30.464 Hrs on 5.784 Hrs. 400kV B on over voltage. D PMU). Sarusajai bu mismatch.220kV Sav vely with upper Ass sa at 1406 hrs.Tripu	riali-Agra pole- ne IV tripped on pped on Zone-I B-phase zone II ongaigaon-New ue to these tripp s blacked out at alakati S/S rema sam load due to	At around 12:00 B phase Zone I V at Bongaigaon at Azara end.Af Siliguri I line tri sings, NER grid s 12:03:43.360 H sined connected v successful opera):35.739 Hrs, 400 I and fault cleared 400 kV Bongai ter that, 400/220k pped at 12:03:36. eparated from ER rs and at 12:03:45 with Birpara and C tion of Islanding	kV Bongaigae d from Balipa gaon-NTPC li kV 315MVA I 827 Hrs and grid and at 1 5 Hrs +/- HVE Gelephu S/S. A scheme at aro	on-BgTPP lir ra end(fault c ine II tripped ICT at Bonga 400kV Bong 2:03:40.960 OC BNC Agra AGBPP, LTF und 12:05 Hi	he I tripped from cleared in 325m from both ends igaon tripped o aigaon-New Sil Hrs AGTPP alo a pole –I blocke S and NTPS st s(information t	n Bongaigaon sec from DR at 12:03:30.0 n Back Up O ⁻ iguri II line th ng with part d.Subsequent ations survive aken from SL	a end on B-phase Za data). Around 12:C 091 Hrs and 400 k ver Current Protect ripped at 12:O3:37. of Tripura system s tly major part NER ed with generation DC). The island w	one II. At 12: 03:07.272 Hrs V Bongaigac ion on HV Si 964 Hrs from geparated fror grid collapse of 150MW, 9 as synchroniz	01:03.001 5, 400kV on-Azara de at n isolated ed due to 0MW and zed with
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent Ger	neration : 1206	MW , पूर्ववृत्ताः	लोड/ Antecedent	Load : 1153	MW)					
	Root Cause	quadrant and ou	It occurred in 400 k t side the distance re- ptection for both the	elay operating c	haracteristics.	-			on end. On anal	ysis the fault	impedance was fou	nd to fall in f	ourth The line
	Remedial Measures	The Line Different	ential Prtection for b	both the circuits	of 400 kV Bong	aigaon-BgTPP Li	ne have been	commissione	ed and put in to	service.			

1			List of Grid	l Disturbanc	es in North-J	Eastern Regio	nal Grid dı	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	400 kV Ranganadi-Biswanath Charali 1	POWERGRID	1/12/2016 2:13	Ranganadi Biswanath Charali	Over Voltage Direct Trip received	Not applicable Not applicable	No No	No No	Loss of Load: 48	GD-I	1/12/2016 2:34	No SPS	0.063
	FIR by the constituent	No	-	8	<u>.</u>	8		<u>.</u>		<u>.</u>			
4	Brief Description of the Incident	line(400 kV Rai	nganadi-Biswanat	th Charali II wa	s under shutdov	wn from 22:01 Hr	s on 11.01.20	16). At 02:13	Hrs on 12.01.2	2016,400 kV	00 kV Ranganadi- Ranganadi-Biswa I subsequently col	nath Charali	I line
	Antecedent Conditions of Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent G	Generation : 10	96 MW , पूर्ववृ	त्ता लोड/ Anteced	ent Load : 13	309 MW)					
	Restoration Details										rea & Capital area 1.16 through 132		
	Root Cause	Over voltage at	Ranganadi. Furth	er investigation	is shall be done	after getting DR	outputs. Rang	ganadi and BN	IC to give DR o	outputs for in	vestigation.		
	Remedial Measures	Measures after i	dentification of re	oot cause of the	event. Rangan	di to check overv	oltage relay se	ettings.					
	400 kV Ranganadi-Biswanath Charali 1	POWERGRID	1/13/2016 14:40	Ranganadi Biswanath Charali	Direct Trip	Not applicable Not applicable	No No	No No	Loss of Load: 36	GD-I	1/13/2016 15:12	No SPS	0.027
	FIR by the constituent	No											
5	Brief Description of the Incident	line(400 kV Ran tripped. Due to in this area.	nganadi-Biswanat tripping of this el	th Charali II wa ement, Ziro are	s under shutdov a, Lekhi area &	wn from 22:01 Hr Capital area and	s on 11.01.20 Gohpur area v	16). At 02:13 were separate	Hrs on 12.01.2	2016,400 kV	00 kV Ranganadi- Ranganadi-Biswaa l subsequently col	nath Charali	I line
	Antecedent Conditions of Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent G	Generation : 10	99 MW , पूर्ववृ	त्ता लोड/ Anteced	ent Load : 14	474 MW)					
	Restoration Details	at 15:21 Hrs on	12.01.16 through	132 kV Ranga	nadi-Lekhi line	Power extended	to Ziro area of	f Arunachal F	Pradesh at 02:47	7 Hrs on 12.0	rea & Capital area 1.16 through 132		
	Root Cause	Over voltage at	Ranganadi.Furthe	er investigation	s shall be done	after getting DR o	outputs. Ranga	anadi and BN	C to give DR o	outputs for inv	vestigation.		
	Remedial Measures	Measures after i	dentification of re	oot cause of the	U		oltage relay se	ettings.					
			easures after identification of root cause of the event. Rangandi to check overvoltage relay settings. Ranganadi DP, ZI, R-E Not Furnished No No DWERGRID Biswanath Charali No tripping Not Furnished No No Balipara DP, ZI, R-E Not applicable No No S/9/2016 18:27 No SPS										

			List of Grid	Disturbanc	es in North-l	Eastern Regio	nal Grid dı	ıring Janu	ary 2016					
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU	
	Charali III	POWERGRID		Biswanath Charali	No tripping	Not applicable	No	No	Loss of Load: 79		5/9/2016 19:19	No SPS	0.118	
	400 kV Balipara-Biswanath	POWERGRID	5/9/2016 18:17	Balipara	DP, ZIII, R-E	Not applicable	No	No		GD-I	5/9/2016 18:36	No SPS		
	Charali 1V	I O W LICOLLD		Biswanath Charali	No tripping	Not applicable	No	No			5/9/2010 10:30	110 51 5		
	Ranganadi U 1	NEEPCO		Ranganadi	Over frequency	Not applicable	No	No	Loss of Generation: 104		5/9/2016 20:25	No SPS	0.166	
_	FIR by the constituent	No			-									
6 FIR by the constituent No 6 Brief Description of the Incident Ziro area & Lekhi area of Arunachal Pradesh and part of Gohpur area of Assam were connected with rest of NER Grid through 400 kV Ranganadi-Biswanath Charali I I Coupler CB of Gohpur kept open for system requirement ,400 kV Ranganadi-Biswanath Charali II was under planned shutdown from 07:50 Hrs on 09.05.16 & 400 kV Biswanath Charali I kept open on over voltage). At 18:17 Hrs on 09.05.2016, 400 kV Ranganadi-Biswanath Charali I line got tripped. Due to tripping of 400 kV Rangar Biswanath Charali I line, Ziro area & Lekhi area of Arunachal Pradesh and part of Gohpur area of Assam were separated from rest of NER Grid and subsequently collap to load generation mismatch.										⁷ Balipara - madi-				
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	eneration : 17	52 MW , पूर्ववृ	त्ता लोड/ Anteced	ent Load : 20	022 MW)						
	Root Cause	tripped. and Ur BLP - BNC line	र्[वेवृत्ता उत्पादन/ Antecedent Generation : 1752 MW, पूर्ववृत्ता लोड/ Antecedent Load : 2022 MW) -Ph CT of Sub Bank-3 of Main Bank Z-1 at BNC failed.Due to un-wanted operation of Distance Protection (PD-571) in Zone-1 at Ranganadi, 400 kV Ranganadi-BNC - II line ipped. and Un wanted operation of Distance Protection in Zone-4 at Balipara resulted in tripping of 400 kV Balipara-BNC - III & IV lines. (REL relay setting for Zone-4 for LP - BNC lines was set instantaneous. For REL relay, Zone-4 is extra and is not required. However, for MICOM relays Zone-4 is reverse zone). Events were due to mal- peration of Numerical relays and has been corrected by NERTS. The PD-571 relay setting details has been given by NERTS to NEEPCO. NEEPCO to check.											
	Remedial Measures	operation of Numerical relays and has been corrected by NERTS. The PD-571 relay setting details has been given by NERTS to NEEPCO. NEEPCO to check. (1) The Zone-4 for the Distance Protection of 400 kV Balipara-BNC - III & IV at Balipara have been corrected (Disabled). (2) Ranganadi to review the setting of the DPR. (3) Reason for CT blast occurred to be checked by NERTS and intimated to sub-committeee / RPC as the event happened in a newly commissioned substation.												

			List of (Grid Disturb	ances in Nortl	n-Eastern Reg	ional Grid	during Jar	nuary 2016				
क्रम सं छया/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Balipara - Khupi	NEEPCO	3/16/2016 12:09	Balipara	DP, ZI, R-Y-E	Not Furnished	No	No	Loss of Load:	GD-I	3/16/2016 12:36	No SPS	0.010
			5/10/2010 12:07	Khupi	No tripping	Not Furnished	No	No	18	00-1	5/10/2010 12:50	10 51 5	0.010
	FIR by the constituent	No						*** • • •					
	Brief Description of the Incident					R Grid through 13 NER Grid and su					132 kV Balipara- 1	Khupi line tri	pped. Due
7	Antecedent Conditions of NER Grid	-			-	ना लोड/ Antecede					Image: Application of the second state of the second st		
	Restoration Details					on 16.06.16 thro	ugh 132 kV B	alipara - Khu	ıpi line.				
	Root Cause	Due to vegetation	on problem in the	line,132 kV Ba	alipara - Khupi lir	ne tripped.							
	Remedial Measures	Vegetation clear	rance to be done	by NEEPCO.									
	132 kV Balipara - Khupi	NEEPCO	4/13/2016 10:24	Balipara Khupi	Back Up Earth Fault Not Furnished	Not applicable	No No	No No	Loss of Load: 21	GD-I		No SPS	0.016
	FIR by the constituent	No				11					8		
8						R Grid through 13 NER Grid and su					132 kV Balipara-	Khupi line tri	pped. Due
0	Antecedent Conditions of NER Grid			-		ता लोड/ Antecede		-					
	Root Cause		.			,132 kV Balipara	*	**					
	Remedial Measures	Vegetation clear POWERGRID.	rance to be done	by NEEPCO. R	elay settings of K	hupi and downstr	eam substatio	ns of Khupi	to be checked b	y DoP,Aruna	chal Pradesh in c	onsultation w	vith
	132 kV Balipara - Khupi	NEEPCO	5/2/2016 8:05	Balipara	Earth Fault, R- ph	Not applicable	No	No	Loss of Load:	GD-I	5/2/2016 19:53	No SPS	0.273
			5/2/2010 0.05	Khupi	No tripping	Not applicable	No	No	23	OD I	5/2/2010 17:55	10 51 5	0.275
9	FIR by the constituent	No											
,						R Grid through 13 NER Grid and su					132 kV Balipara-	para- Khupi line trip h in consultation wit 19:53 No SPS	pped. Due
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 11	88 MW , पूर्ववृत्त	ना लोड/ Antecede	nt Load : 112	4 MW)					

			List of (Grid Disturb	ances in Nortl	h-Eastern Reg	ional Grid	during Jai	nuary 2016				
क्रम सं छया/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Root Cause	Due to ground c	learance problem	n, 132 kV Balip	ara - Khupi line t	ripped . Vegetatio	on clearance a	lready done b	y NEEPCO.				
	Remedial Measures				done by NEEPO			ž	•				
	132 kV Balipara - Khupi	NEEPCO	5/26/2016 17:03	Balipara Khupi	Back Up Earth Fault No tripping	Not applicable Not applicable	No No	No No	Loss of Load: 29	GD-I	5/26/2016 18:39	No SPS	0.077
	FIR by the constituent	No		Kiiupi	No urpping		NO	NU					
10	Brief Description of the Incident	to tripping of this element, Khupi area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.									Khupi line tr	ipped. Due	
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent (Generation : 19	969 MW , पूर्ववृत्त	ता लोड/ Antecede	nt Load : 180	94 MW)					
	Root Cause	Fault in the line	or downstream d	lue to low groui	nd clearance.								
	Remedial Measures	Necessary action	ns to be taken to	increase ground	l clearance by NE	EPCO at the earl	iest						
	132 kV Balipara - Khupi	NEEPCO	5/30/2016 14:22	Balipara Khupi	DP, ZI, R-Y-E, 40.32 Kms. No tripping	Not Furnished Not Furnished	No No	No No	Loss of Load: 20	GD-I	5/31/2016 10:55	No SPS	0.423
	FIR by the constituent	No			11 0	B			8		8		
11	Brief Description of the Incident	-			l with rest of NEF rated from rest of		-	-			132 kV Balipara-	Khupi line tri	pped. Due
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1669	MW , Anteced	lent Load : 1519	MW)							
	Restoration Details												
	Root Cause	Fault in the line	due to low grour	nd clearance.									
	Remedial Measures	Necessary action	ns to be taken to	increase ground	l clearance by NE	EPCO at the earli	iest						
	132 kV Balipara - Khupi	NEEPCO	6/11/2016 11:49	Balipara Khupi	DP, ZI, R-Y- E,40.48 Kms. No tripping	Not Furnished Not Furnished	No No	No No	Loss of Load: 22& Loss of Generation: 0	GD-I	6/11/2016 16:12	No SPS	0.059
	FIR by the constituent	No	-			-	-	-	-		-		
12	Brief Description of the Incident				l with rest of NEF rated from rest of						132 kV Balipara-	Khupi line tr	ipped. Due
	Antecedent Conditions of NER Grid				lent Load : 1478								
	Root Cause												

कम सं बिजली व्यवस्था तत्व / सं मालिक / एवारा प्रदान के समय सीआर अपरेटर द्वारा प्रदान की / Description मालिक / अणी समय सीआर अपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator मालिक / अणे समय सीआर अपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator मालिक / अणे समय सीआर अपरेटर द्वारा प्रदान की लावाट (Loss of Load & Generation in MW) मालिक / समय सीआर अणे सीआर समय सीआर अपरेटर द्वारा प्रदान को तिथि और समय या बहाली / Date and time of restoration provided by CR operator अँटो रीक्लोजर की तिथि प्रतान की समय सी अपरेटर की आर समय सीआर अपरेटर द्वारा प्रदान को तिथि आर समय या बहाली / Date and time of restoration provided by CR operator 24 घंटे के शीतर की समय हा नहीं) / DR output furnished within 24 hours (Y/N) श्रमाव से का और द्वारा प्रतान की समय या बहाली / Date Generation in MW)	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
DP ZII P.V.		
DP ZII R-Y-		
132 kV Balipara - Khupi NEEPCO 6/20/2016 0:37 Balipara Balipara Not Furnished Not Furnished No No Loss of Load: 22 GD-I 6/21/2016 17:07	7 No SPS	0.782
FIR by the constituent No	<u> </u>	L
 Brief Description of the Incident Incident Khupi area of Arunachal Pradesh was connected with rest of NER Grid through 132 kV Balipara- Khupi line. At 00:37 Hrs on 20.06.16, 132 kV Balipara- to tripping of this element, Khupi area was separated from rest of NER Grid and subsequently collapsed due to no source in this area. 	Khupi line trip	pped. Due
Antecedent Conditions of NER Grid (Antecedent Generation : 2047 MW , Antecedent Load : 1779 MW)		
Root Cause		
Remedial Measures		
132 kV Balipara - Khupi NEEPCO 6/29/2016 15:55 Balipara DP, ZI, B-E, 16.02 Kms. Not applicable No No Loss of Load: 21 GD-I 6/29/2016 16:36	5 No SPS	0.02
FIR by the constituent No	<u>.</u>	
Brief Description of the Khupi area of Arunachal Pradesh was connected with rest of NER Grid through 132 kV Balinara-Khupi line At 15:55 Hrs on 29.06.16 132 kV Balinara	- Khupi line tr	ripped. Due
14 Incident 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 : MW, Antecedent Load : MW)		
Root Cause		
Remedial Measures		
132 kV Balipara - Khupi NEEPCO 6/29/2016 17:38 Balipara DP, ZI, B-E, 16.02 Kms. Not applicable No No Loss of Load: GD-I 6/29/2016 18:11	No SPS	0.009
Khupi Not Furnished Not applicable No No		
FIR by the constituent No Brief Description of the Khupi area of Arunachal Pradesh was connected with rest of NER Grid through 132 kV Balipara- Khupi line. At 17:38 Hrs on 29.06.16, 132 kV Balipara	771 11	·
Brief Description of the Khupi area of Arunachal Pradesh was connected with rest of NER Grid through 132 kV Balipara-Khupi line. At 17:38 Hrs on 29.06.16, 132 kV Balipara	- Knupi line tr	ipped. Due
15 Incident 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 (Antecedent Conditions of Conception + MW)		j
Incident 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 Incident		

			List of G	rid Disturba	nces in Nort	h-Eastern Reg	ional Grid	during Jai	nuary 2016				
क्रम सं छया/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Ranganadi - Lekhi	POWERGRID & DoP AP	1/19/2016 22:27	Ranganadi Lekhi	No tripping Earth Fault	Not Furnished Not Furnished	No No	No No	Loss of Load: 48	GD-I	1/19/2016 22:51	No SPS	0.017
	FIR by the constituent	No		-	-	-	-	-	•	-	-		
16	Brief Description of the Incident	Gohpur kept op	en for system req	uirement). At 2	2:27 Hrs on 19		Ranganadi - I	Lekhi line trij	pped. Due to tri		nganadi-Lekhi line element, Lekhi ar		
	Antecedent Conditions of NER Grid				., .	त्ता लोड/ Anteced							
	Restoration Details								s on 19.01.16 th	rough 132 k	V Ranganadi - Lel	chi line.	
	Root Cause					' Ranganadi - Lek							
	Remedial Measures	Vegetation clear	ance to be done.		-	ated with Earth Fa	, , , , , , , , , , , , , , , , , , ,		Lekhi.				
	132 kV Ranganadi - Lekhi	POWERGRID & DoP AP	1/21/2016 22:34	Ranganadi Lekhi	DP, ZI, R-E Not Furnished	Not Furnished Not Furnished	No No	No No	Loss of Load: 41	GD-I	1/21/2016 23:13	No SPS	0.03
	FIR by the constituent	No											
17	Brief Description of the Incident	Gohpur kept op	en for system req	uirement). At 2	2:34 Hrs on 21		Ranganadi - I	Lekhi line trij	pped. Due to tri	pping of this	nganadi-Lekhi line element, Lekhi ar		
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 13	350 MW , पूर्ववृ	त्ता लोड/ Antece	lent Load : 1	718 MW)					
	Restoration Details								s on 21.01.16 th	rough 132 k	V Ranganadi - Lel	chi line.	
	Root Cause	Due to vegetation	on problem in the	downstream of	f Lekhi, 132 kV	' Ranganadi - Lek	hi line tripped	1.					
	Remedial Measures	Vegetation clear	ance to be done	by POWERGR	ID & DoP AP.								
	132 kV Ranganadi - Lekhi	POWERGRID & DoP AP	5/5/2016 10:27	Ranganadi	DC supply problem	Not applicable	No	No No	Loss of Load: 38	GD-I	5/5/2016 10:34	No SPS	0.016
		N-		Lekhi	No tripping	Not applicable	No	NO					
	FIR by the constituent	No											
18	Brief Description of the Incident	Gohpur kept op	en for system req	uirement). At 1	0:27 Hrs on 05		anganadi-Nirj	uli line trippe	d. Due to trippi		nganadi-Lekhi line ement, Lekhi area	· •	
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent (Generation :13	58 MW , पूर्ववृ	त्ता लोड/ Antece	lent Load : 1	459 MW)					

			List of Gr	id Disturba	nces in Nort	h-Eastern Reg	ional Grid	during Ja	nuary 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Root Cause	NEEPCO to eala	aborate on DC su	pply problem f	or further analy	vsis.							
	Remedial Measures	NEEPCO to che	ck Rangandi end	relay details an	nd inform to PC	GCIL for necessar	y corrective ad	ction.					
	132 kV Ranganadi - Lekhi	POWERGRID & DoP AP	5/10/2016 6:46	Ranganadi Lekhi	Busbar Protection No tripping	Not applicable Not applicable	No No	No No	Loss of Load: 58	GD-I	5/11/2016 11:50	No SPS	0.049
1	FIR by the constituent	No			11 8	1 11	8				8		
19	Brief Description of the Incident	CB of Gohpur k	ept open for syste	em requirement	t). At 06:46 Hrs		kV Ranganad	di-Lekhi line	tripped. Due to		vV Ranganadi-Lek his element, Lekhi		
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent G	Generation : 13	816 MW , पूर्ववृ	त्ता लोड/ Antece	lent Load : 1	536 MW)					
	Root Cause	Due to mal-opea	rion of Busbar p	rotection, 132 k	V Ranganadi -	Lekhi line trippe	d.						
	Remedial Measures	NEEPCO to che	ck relay details a	nd busbar conf	iguation at the	earliest.							
	132 kV Ranganadi - Lekhi	POWERGRID & DoP AP	5/12/2016 21:02	Ranganadi Lekhi	No tripping Y-B Ph Overcurrent	Not applicable Not applicable	No No	No No	Loss of Load: 73	GD-I	5/12/2016 21:19	No SPS	0.022
	FIR by the constituent	No			-		-	-	-				
20	Brief Description of the Incident	CB of Gohpur k	ept open for syste	em requirement	t). At 21:02 Hrs		kV Ranganad	li-Lekhi line	tripped. Due to		kV Ranganadi-Le his element, Lekhi		
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent G	Generation : 17	798 MW , पूर्ववृ	त्ता लोड/ Antece	lent Load : 1	753 MW)					
	Root Cause	The O/C and E/I	F relays are found	d to operate ind	iscriminately fo	or down stream fa	ults. Due to ve	egetation pro	blem in downst	ream of Lekł	ii, 132 kV Rangan	adi - Lekhi li	ne tripped.
	Remedial Measures	Directional featu	are of the O/C and	d E/F relays at	Lekhi are to be	restored at earlie	st by DoP,AP.	Vegetation c	learance of dow	nstream of L	ekhi of Lekhi to b	e done by $\overline{\mathbf{D}}$	P,AP.
	132 kV Lekhi - Nirjuli	DoP AP & POWERGRID	5/25/2016 17:30	Lekhi Nirjuli	Earth Fault, R,Y,B-Ph No tripping	Not applicable Not applicable	No No	No No	Loss of Load: 14	GD-I	5/25/2016 17:44	No SPS	0.006
	FIR by the constituent	No	-	. 2			•	-	-	-	-		- I
21	Brief Description of the Incident	open for system		17:30 Hrs on 2	25.05.16, 132 k	V Lekhi-Nirjuli l					uli line (Bus Cour & part of Gohpur		

			List of G	rid Disturba	nces in Nort	h-Eastern Reg	ional Grid	during Ja	nuary 2016					
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU	
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent (Generation : 19	934 MW , पूर्ववृ	त्ता लोड/ Antece	lent Load : 1	603 MW)						
	Root Cause		in the line section due to vegetation problem. NERTS may check. ture of the O/C and E/F relays at Lekhi are to be restored.Vegetation clearance to be done by DoP AP and POWERGRID.											
	Remedial Measures	Directional featu	ure of the O/C an	d E/F relays at		-	on clearance t	o be done by	DoP AP and P	OWERGRID				
		DoP AP &		Lekhi	Earth Fault	Not applicable	No	No	Loss of Load:					
	132 kV Lekhi - Nirjuli	POWERGRID	6/5/2016 2:16	Nirjuli	Not Furnished	Not applicable	No	No	27	GD-I	6/5/2016 2:28	No SPS	0.013	
	FIR by the constituent	No												
22	Brief Description of the Incident	open for system		t 02:16 Hr on 0	5.06.16, 132 k	V Lekhi - Nirjuli			•		ekhi line (Bus Cou a & part of Gohpu	-		
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1893	MW , Anteced	lent Load : 18	99 MW)								
	Root Cause													
	Remedial Measures													
	132/33 kV 50 MVA ICT-I at Nirjuli	POWERGRID	2/24/2016 16:50	Nirjuli	Restricted Earth Fault	Not applicable	No	No	Loss of Load: 11	GD-I	2/24/2016 22:13	No SPS	0.072	
	FIR by the constituent	No												
23	Brief Description of the Incident		uli area of Arunachal Pradesh was connected with rest of NER Grid through 132/33 kV, 50 MVA ICT-I at Nirjuli. At 16:50 Hrs on 24.02.16, 132/33 kV, 50 MVA ICT-I at uli tripped. Due to tripping of this element, Nirjuli area was separated from rest of NER Grid and subsequently collapsed due to no source in this area. (Load loss in											
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 10	02 MW , पूर्ववृ	त्ता लोड/ Anteced	lent Load : 1	548 MW)						
	Restoration Details	Power extended	to Nirjuli area o	f Arunachal Pra	desh after resto	oration of 132/33	kV 50 MVA I	CT-I at Nirju	ıli at 22:13 Hrs	on 24.02.16.				
	Root Cause	Due to wrong C	T connection to t	the relay at Nirj	uli(PG), 132/33	8 kV 50 MVA IC	Γ-I at Nirjuli g	ot tripped fo	r a fault in the 3	3 kv Feeder	- 4.			
	Remedial Measures	The problem has	s been attended.											

			List of G	rid Disturba	nces in Nortl	h-Eastern Reg	ional Grid	during Ja	nuary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node		आटा राक्लाजर का ऑपरेशन / Operation of Auto Reclose	0	output furnished within 24	लाइ आर उत्पादन की हानि) / Effect (Loss of Load & Generation	श्रणा सीईए ग्रिड मानकों के भन्नमप्र /	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU

			List of G	Frid Disturb	ances in Nor	th-Eastern Re	gional Grie	d during Ja	anuary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	furnished within 24	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	220 kV AGBPP - Deomali	DoP, AP	6/15/2016 11:58	AGBPP	DP, ZI, Y-E, 107.5 Kms.	Not Furnished	No	No	Loss of Load:	GD-I	6/15/2016 18:10	No SPS	0.021
	Deoman		11.56	Deomali	Not Furnished	Not Furnished	No	No	5				
	FIR by the constituent	No											
24	Brief Description of the Incident					NER Grid throug rated from rest of					5.16 , 220 kV AG e in this area	BPP-Deomal	i line
	Antecedent Conditions of NER Grid	(Antecedent G	eneration : 1925	MW, Anteced	lent Load : 154	45 MW)							
	Root Cause												
	Remedial Measures												

			List of	Grid Disturb	ances in Nort	h-Eastern Reg	gional Grid	during Ja	nuary 2016				
क्रम सं ड्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हॉ / 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Silchar - Dullavcherra	POWERGRID & AEGCL		Silchar Dullavcherra	No tripping Earth Fault, B-	Not applicable Not applicable	No No	No No	-		3/21/2016 8:30	No SPS	
	Dunavenerra	a fielder	2/21/2016 9-21	Dunavenena	ph	Not applicable	140	NO	Loss of Load:	CD I			0.014
	132 kV Dullavcherra -	AEGCL &	3/21/2016 8:21	Dullavcherra	Loss of Voltage	Not applicable	No	No	14	GD-I	3/21/2016 9:06	No SPS	0.014
	Dharmanagar	TSECL		Dharmanagar	Loss of Voltage	Not applicable	No	No					
	FIR by the constituent	No					1		Į				
25	Brief Description of the Incident	requirement). At		1.03.16 ,132 kV	Silchar- Dullave						gar line kept open separated from re	•	id and
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 10	94 MW , पूर्ववृत्त	ा लोड/ Anteceder	nt Load : 196	3 MW)					
	Restoration Details					.03.16 through 1							
	Root Cause	Fault was in 132 tripped.	kV Dharmanag	ar - Dullavcherra	a line due to vege	tation problem.as	a result of no	n clearence o	of fault within th	at section ,13	32 kV Silchar - Du	ıllavcherra liı	ne got
	Remedial Measures	11	f Dullavcherra as	well as Dharma	unagar to be revie	wed by AEGCL	& TSECL in c	onsultation v	vith PG.Vegeta	ion clearance	e to be done by AB	GCL & TSE	CL
	132 kV Dullavcherra -												
	Dharmanagar	AEGCL & TSECL		Dullavcherra Dharmanagar	Over current No tripping	Not applicable Not applicable	No No	No No			4/16/2016 6:12	No SPS	
			4/16/2016 4:11	Dullavcherra Dharmanagar Silchar Dullavcherra	No tripping Over current	Not applicable Not applicable			Loss of Load: 5	GD-I	4/16/2016 6:12 4/16/2016 4:40		0.013
	Dharmanagar 132 kV Silchar -	TSECL POWERGRID	4/16/2016 4:11	Dharmanagar Silchar	No tripping	Not applicable	No No	No No	Loss of Load:			No SPS	
26	Dharmanagar 132 kV Silchar - Dullavcherra	TSECL POWERGRID & AEGCL No Dullavcherra are , 132 kV Dullav	ea of Assam was	Dharmanagar Silchar Dullavcherra connected with agar line & 132	No tripping Over current No tripping rest of NER Grid kV Silchar- Dulla	Not applicable Not applicable Not applicable through 132 kV	No No No Dullavcherra-	No No No Dharmanagan	Loss of Load: 5 r line & 132 kV	GD-I Silchar- Dul		No SPS No SPS 04:11 Hrs or	0.013 n 16.04.16
26	Dharmanagar 132 kV Silchar - Dullavcherra FIR by the constituent Brief Description of the	TSECL POWERGRID & AEGCL No Dullavcherra are , 132 kV Dullav and subsequent	ea of Assam was cherra-Dharmana y collapsed due t	Dharmanagar Silchar Dullavcherra connected with agar line & 132] o no source in th	No tripping Over current No tripping rest of NER Grid kV Silchar- Dulla nis area.	Not applicable Not applicable Not applicable through 132 kV	No No No Dullavcherra- ped. Due to tri	No No No Dharmanagar pping of thes	Loss of Load: 5 r line & 132 kV	GD-I Silchar- Dul	4/16/2016 4:40 lavcherra line. At	No SPS No SPS 04:11 Hrs or	0.013 n 16.04.16
26	Dharmanagar 132 kV Silchar - Dullavcherra FIR by the constituent Brief Description of the Incident Antecedent Conditions	TSECL POWERGRID & AEGCL No Dullavcherra are , 132 kV Dullav and subsequently (पूर्ववृत्ता उत्पाद	ea of Assam was cherra-Dharman y collapsed due t ቭ/ Antecedent (etation problem	Dharmanagar Silchar Dullavcherra connected with agar line & 132 o no source in th Generation : 135	No tripping Over current No tripping rest of NER Grid kV Silchar- Dulla is area. 59 MW , पूर्ववृत्त	Not applicable Not applicable Not applicable through 132 kV avcherra line tripp লালাঁਤ/ Anteceder	No No Dullavcherra- bed. Due to tri at Load : 175 0	No No No Dharmanagaa pping of thes 0 MW)	Loss of Load: 5 r line & 132 kV e elements, Dul	GD-I Silchar- Dul lavcherra are	4/16/2016 4:40 lavcherra line. At	No SPS No SPS 04:11 Hrs or om rest of NI	0.013 n 16.04.16 ER Grid
26	Dharmanagar 132 kV Silchar - Dullavcherra FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures	TSECL POWERGRID & AEGCL No Dullavcherra are , 132 kV Dullav and subsequent! (पूर्ववृत्ता उत्पाद Fault due to veg Dullavcherra lin Over Current se	ea of Assam was cherra-Dharmana y collapsed due t ন/ Antecedent (etation problem e.	Dharmanagar Silchar Dullavcherra connected with agar line & 132 o no source in th Generation : 132 was in 132 kV E	No tripping Over current No tripping rest of NER Grid kV Silchar- Dulla is area. 59 MW, पूर्ववृत्त Dullavcherra - Dh to be co-ordinate	Not applicable Not applicable Not applicable through 132 kV avcherra line tripp IT rifs / Anteceder armanagar line.N d with that for DI	No No No Dullavcherra- bed. Due to tri at Load : 175 0 on clearance of parmanager fe	No No Dharmanagaa pping of thes 0 MW) of fault in this eder at Dulla	Loss of Load: 5 r line & 132 kV e elements, Dul	GD-I Silchar- Dul lavcherra are avcherra resu	4/16/2016 4:40 lavcherra line. At a was separated fr	No SPS No SPS 04:11 Hrs or om rest of NI	0.013 n 16.04.16 ER Grid
26	Dharmanagar 132 kV Silchar - Dullavcherra FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause	TSECL POWERGRID & AEGCL No Dullavcherra are , 132 kV Dullav and subsequent! (पूर्ववृत्ता उत्पाद Fault due to veg Dullavcherra lin	ea of Assam was cherra-Dharmana y collapsed due t ন/ Antecedent (etation problem e.	Dharmanagar Silchar Dullavcherra connected with agar line & 132 l o no source in th Generation : 132 was in 132 kV E	No tripping Over current No tripping rest of NER Grid kV Silchar- Dulla iis area. 59 MW, पूर्ववृत्त Dullavcherra - Dh	Not applicable Not applicable Not applicable through 132 kV avcherra line tripp IT लोड/ Anteceden armanagar line.N	No No Dullavcherra- ed. Due to tri nt Load : 175 on clearance o	No No Dharmanagaa pping of thes 0 MW) of fault in this	Loss of Load: 5 r line & 132 kV e elements, Dul	GD-I Silchar- Dul lavcherra are avcherra resu	4/16/2016 4:40 lavcherra line. At a was separated fr lted in tripping of	No SPS No SPS 04:11 Hrs or om rest of NI	0.013 n 16.04.16 ER Grid
	Dharmanagar 132 kV Silchar - Dullavcherra FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Silchar -	TSECL POWERGRID & AEGCL No Dullavcherra are , 132 kV Dullav and subsequentl (पूर्वव् त्ता उत्पाद Fault due to veg Dullavcherra lin Over Current se POWERGRID & AEGCL No	a of Assam was cherra-Dharmana y collapsed due t F/ Antecedent (etation problem e. etting at Silchar f 3/21/2016 3:35	Dharmanagar Silchar Dullavcherra connected with agar line & 132 l o no source in th Generation : 133 was in 132 kV E or Dullavcherra Silchar Dullavcherra	No tripping Over current No tripping rest of NER Grid kV Silchar- Dulla iis area. 59 MW, ूर्ववृत्त Dullavcherra - Dh to be co-ordinate DP, ZII, Y-E Earth Fault	Not applicable Not applicable Not applicable through 132 kV avcherra line tripp IT लोड/ Anteceder armanagar line.N d with that for DI Not Furnished Not Furnished	No No Dullavcherra- ed. Due to trij ht Load : 175 on clearance c narmanager fe <u>No</u> No	No No No Dharmanagau pping of thes 0 MW) of fault in this eder at Dulla No No	Loss of Load: 5 r line & 132 kV e elements, Dul s section at Dul vcherra.Vegeta Loss of Load: 12	GD-I Silchar- Dul lavcherra are avcherra resu ion clearance GD-I	4/16/2016 4:40 lavcherra line. At a was separated fr alted in tripping of to be done by TS 3/21/2016 4:00	No SPS No SPS 04:11 Hrs or om rest of NI F 132 kV Silcl ECL. No SPS	0.013 n 16.04.16 ER Grid nar -
	Dharmanagar 132 kV Silchar - Dullavcherra FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Silchar - Dullavcherra	TSECL POWERGRID & AEGCL No Dullavcherra are , 132 kV Dullav and subsequently (पूर्ववृत्ता उत्पाद Fault due to veg Dullavcherra lin Over Current se POWERGRID & AEGCL No Dullavcherra are requirement). Au	ea of Assam was cherra-Dharmana y collapsed due t al Antecedent (etation problem e. titing at Silchar f 3/21/2016 3:35 ea of Assam was t 03:35 Hrs on 2	Dharmanagar Silchar Dullavcherra connected with agar line & 132 1 o no source in th Generation : 132 was in 132 kV E or Dullavcherra Silchar Dullavcherra connected with 1.03.16 , 132 kV	No tripping Over current No tripping rest of NER Grid kV Silchar- Dulla is area. 59 MW, पूर्ववृत्त Dullavcherra - Dh to be co-ordinate DP, ZII, Y-E Earth Fault rest of NER Grid Silchar- Dullavc	Not applicable Not applicable Not applicable through 132 kV avcherra line tripp IT लोड/ Anteceder armanagar line.N d with that for DI Not Furnished Not Furnished through 132 kV	No No No Dullavcherra- ed. Due to trij at Load : 175 on clearance of narmanager fe No No Silchar- Dulla	No No No Dharmanagaa pping of thes 0 MW) of fault in this eder at Dulla No No vcherra line(Loss of Load: 5 r line & 132 kV e elements, Dul s section at Dul vcherra.Vegeta Loss of Load: 12 132 kV Dullavo	GD-I Silchar- Dul lavcherra are avcherra resu ion clearance GD-I therra-Dharm	4/16/2016 4:40 lavcherra line. At a was separated fr ulted in tripping of	No SPS No SPS 04:11 Hrs or om rest of NI F 132 kV Silcl ECL. No SPS pen for system	0.013 n 16.04.16 ER Grid nar - 0.008 m
	Dharmanagar 132 kV Silchar - Dullavcherra FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Silchar - Dullavcherra FIR by the constituent Brief Description of the	TSECL POWERGRID & AEGCL No Dullavcherra are , 132 kV Dullav and subsequently (पूर्ववृत्ता उत्पाद Fault due to veg Dullavcherra lin Over Current se POWERGRID & AEGCL No Dullavcherra are requirement). Ai subsequently coi	ea of Assam was cherra-Dharmana y collapsed due t a/ Antecedent (etation problem e. titing at Silchar f 3/21/2016 3:35 ea of Assam was t 03:35 Hrs on 2 illapsed due to no	Dharmanagar Silchar Dullavcherra connected with agar line & 132 o no source in th Generation : 132 was in 132 kV E or Dullavcherra Silchar Dullavcherra connected with 1.03.16 , 132 kV	No tripping Over current No tripping rest of NER Grid kV Silchar- Dulla is area. 59 MW , पूर्वव् c cc Dullavcherra - Dh to be co-ordinate DP, ZII, Y-E Earth Fault rest of NER Grid Silchar- Dullavc rea.	Not applicable Not applicable Not applicable through 132 kV avcherra line tripp IT लोड/ Anteceder armanagar line.N d with that for DI Not Furnished Not Furnished through 132 kV	No No No Dullavcherra- bed. Due to tri at Load : 1750 on clearance of harmanager fe No No Silchar- Dulla . Due to trippi	No No No Dharmanagai pping of thes 0 MW) of fault in this eder at Dulla No No vcherra line(ng of this ele	Loss of Load: 5 r line & 132 kV e elements, Dul s section at Dul vcherra.Vegeta Loss of Load: 12 132 kV Dullavo	GD-I Silchar- Dul lavcherra are avcherra resu ion clearance GD-I therra-Dharm	4/16/2016 4:40 lavcherra line. At a was separated fr lited in tripping of to be done by TS 3/21/2016 4:00 anagar line kept o	No SPS No SPS 04:11 Hrs or om rest of NI F 132 kV Silcl ECL. No SPS pen for system	0.013 n 16.04.16 ER Grid nar - 0.008 m
	Dharmanagar 132 kV Silchar - Dullavcherra FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Silchar - Dullavcherra FIR by the constituent Brief Description of the Incident Antecedent Conditions	TSECL POWERGRID & AEGCL No Dullavcherra are , 132 kV Dullav and subsequentl (पूर्वव् त्ता उत्पाद Fault due to veg Dullavcherra lin Over Current se POWERGRID & AEGCL No Dullavcherra are requirement). Ai subsequently coi (पूर्वव् त्ता उत्पाद	a of Assam was cherra-Dharmana y collapsed due t a / Antecedent (etation problem e. 3/21/2016 3:35 ea of Assam was t 03:35 Hrs on 2 llapsed due to no a / Antecedent (Dharmanagar Silchar Dullavcherra connected with agar line & 132 l o no source in th Generation : 133 was in 132 kV E or Dullavcherra Silchar Dullavcherra connected with 1.03.16 , 132 kV source in this al Generation : 119	No tripping Over current No tripping rest of NER Grid kV Silchar- Dulla iis area. 59 MW, ¶á¶cc Dullavcherra - Dh to be co-ordinate DP, ZII, Y-E Earth Fault rest of NER Grid Silchar- Dullavc rea. 98 MW, ¶á¶cc	Not applicable Not applicable Not applicable through 132 kV avcherra line tripp ff rifs / Anteceder armanagar line.N d with that for DI Not Furnished Not Furnished through 132 kV herra line tripped	No No Dullavcherra- ed. Due to trij nt Load : 175 on clearance c narmanager fe No No Silchar- Dulla . Due to trippi nt Load : 178	No No No Dharmanagaa pping of thes 0 MW) of fault in this eder at Dulla No No vcherra line(ng of this ele 6 MW)	Loss of Load: 5 r line & 132 kV e elements, Dul s section at Dull vcherra.Vegeta Loss of Load: 12 132 kV Dullavc ment, Dullavc	GD-I Silchar- Dul lavcherra are avcherra resu ion clearance GD-I therra-Dharm	4/16/2016 4:40 lavcherra line. At a was separated fr lited in tripping of to be done by TS 3/21/2016 4:00 anagar line kept o	No SPS No SPS 04:11 Hrs or om rest of NI F 132 kV Silcl ECL. No SPS pen for system	0.013 n 16.04.16 ER Grid nar - 0.008 m
	Dharmanagar 132 kV Silchar - Dullavcherra FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Remedial Measures 132 kV Silchar - Dullavcherra FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid	TSECL POWERGRID & AEGCL No Dullavcherra are , 132 kV Dullav and subsequently (पूर्ववृत्ता उत्पाद Fault due to veg Dullavcherra lin Over Current se POWERGRID & AEGCL No Dullavcherra are requirement). At subsequently coi (पूर्ववृत्ता उत्पाद Power extended Due to jumper fi	ea of Assam was cherra-Dharmana y collapsed due t a/ Antecedent (etation problem e. titing at Silchar f 3/21/2016 3:35 ea of Assam was t 03:35 Hrs on 2: illapsed due to no a/ Antecedent (to Dullavcherra ailure in the line,	Dharmanagar Silchar Dullavcherra connected with agar line & 132 1 o no source in th Generation : 132 was in 132 kV E or Dullavcherra Silchar Dullavcherra connected with 1.03.16 , 132 kV source in this a Generation : 119 area of Assam a 132 kV Silchar	No tripping Over current No tripping rest of NER Grid kV Silchar- Dulla is area. 59 MW , पूर्वव् crc Dullavcherra - Dh to be co-ordinate DP, ZII, Y-E Earth Fault rest of NER Grid Silchar- Dullavc rea. 28 MW , पूर्वव् crc t 04:00 Hrs on 22 Dullavcherra Iir	Not applicable Not applicable Not applicable through 132 kV avcherra line tripp II nls / Anteceder armanagar line.N d with that for DI Not Furnished Not Furnished through 132 kV therra line tripped II nls / Anteceder .03.16 through 1	No No Dullavcherra- bed. Due to tri at Load : 175 on clearance of narmanager fe No No Silchar- Dulla . Due to trippi at Load : 178 32 kV Silchar	No No No Dharmanagai pping of thes 0 MW) of fault in this eder at Dulla No No vcherra line(ng of this ele 6 MW) - Dullavcher	Loss of Load: 5 r line & 132 kV e elements, Dul vcherra.Vegeta Loss of Load: 12 132 kV Dullavch ment, Dullavch ra line.	GD-I Silchar- Dul lavcherra are avcherra resu ion clearance GD-I cherra-Dharm erra area was	4/16/2016 4:40 lavcherra line. At a was separated fr lited in tripping of to be done by TS 3/21/2016 4:00 anagar line kept o	No SPS No SPS 04:11 Hrs or om rest of NI F 132 kV Silcl ECL. No SPS pen for system	0.013 n 16.04.16 ER Grid nar - 0.008 m

			List of	Grid Disturb	ances in North	h-Eastern Reg	ional Grid	during Ja	nuary 2016			
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपी संचाल विवर Detai SP Oper
	132 kV Silchar - Dullavcherra	POWERGRID & AEGCL	3/28/2016 9:45	Silchar	DP, ZIII, R-Y- E	Not Furnished	No	No	Loss of Load: 20	GD-I	3/28/2016 10:20) No S
				Dullavcherra	No tripping	Not Furnished	No	No	20			
	FIR by the constituent	No										
28		requirement). At		28.03.16 , 132 k	V Silchar- Dullav	-					managar line kept of Assam was sepa	-
	of NER Grid				4.5	ा लोड/ Anteceder						
ļĺ	Restoration Details	Power extended	to Dullavcherra	area of Assam a	t 10:20 Hrs on 28	3.03.16 through 13	32 kV Silchar	- Dullavcher	ra line.			
[- Dullavcherra lin							
	Remedial Measures	Conditional as w	ell as period ma	intanence of line	accessories to be	e done by POWE	RGRID & AE	GCL and pet	rolling also to l	be done.		
	132 kV Silchar -	POWERGRID	4/4/2016 19:57	Silchar	DP, ZII, Y-E	Not Furnished	No	No	Loss of Load:	GD-I	4/4/2016 21:10	No
	Dullavcherra	& AEGCL	T/ T/ 2010 19.37	Dullavcherra	Not Furnished	Not Furnished	No	No	17	-100-1	-7/-7/2010/21.10	1101
[No										
29	Rrief Description of the	requirement). At		04.04.16 ,132 kV	/ Silchar- Dullave	-					managar line kept as separated from 1	-
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पादत	न/ Antecedent (Generation : 129)1 MW , पूर्ववृत्त	ा लोड/ Anteceder	1t Load : 217.	3 MW)				
l [Root Cause	Transient lighter	ning fault occured	d in the AEGCL	section of 132 k	V Silchar - Dulla	vcherra line(F	ault distance	shown at Silch	ar 25 Km.).		
L I	Remedial Measures	Tower footing as	s well as substati	on earth resistan	ce to be checked	by POWERGRII) & AEGCL.	In case of fre	quent lightning	, arrester has	to be kept in plac	e.
	132 kV Silchar -	POWERGRID	4/15/2016 2:23	Silchar	DP, ZII, Y-E	Not Furnished	No	No	Loss of Load:	GD-I	4/15/2016 2:40	I
	Dullavcherra	& AEGCL	+/13/2010 2:23	Dullavcherra	Not Furnished	Not Furnished	No	No	18	-UD-I	4/13/2010 2:40	110
[FIR by the constituent	No										
30	Brief Description of the	requirement). At		5.04.16 , 132 kV	Silchar- Dullave						nanagar line kept o s separated from r	
	of NER Grid	., .				ा लोड/ Anteceder	nt Load : 167	9 MW)				
	Root Cause				char - Dullavcher	ra line tripped.						
Ľľ			ance to be done l									
		DOWEDCDID	4/16/2016 19:38	Silahar	DP, ZII, R-Y-B	Not Furnished	No	No	Loss of Load: 16	GD-I	4/16/2016 20:16	5 No

ţ			List of	Grid Disturb	ances in Nort	h-Eastern Reg	ional Grid	during Ja	nuary 2016			
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की /	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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 bours	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards		एसपी संचाल विवर Detai SF Oper
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पादव	न/ Antecedent G	Seneration : 106	77 MW , पूर्ववृत्त	ा लोड/ Anteceden	nt Load : 157.	3 MW)				<u> </u>
l l		Due to lightning										
1 1						by POWERGRII) & AEGCL.					
<u> </u>			ance to be done b									
	132 kV Dullavcherra -	AEGCL &		Dullavcherra	Over current	Not applicable	No	No			1/16/2016 6.12	N- 4
۱ I	Dharmanagar	TSECL	4/16/2016 4:11	Dharmanagar	No tripping	Not applicable	No	No	Loss of Load:	GD-I	4/16/2016 6:12	No S
I I		POWERGRID	+/10/2010 4:11	Silchar	Over current	Not applicable	No	No	5	-UD-I	4/16/2016 4:40	No S
I I	Dullavcherra	& AEGCL		Dullavcherra	No tripping	Not applicable	No	No			-, 10/2010 4:40	1001
ļ ļ	FIR by the constituent	No										
32	Brief Description of the Incident	, 132 kV Dullavo		agar line & 132 k	kV Silchar- Dulla						llavcherra line. At ea was separated fr	
32	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Veneration : 135	⁵⁹ MW , पूर्ववृत्त	ा लोड/ Anteceden	nt Load : 175	0 MW)				
	Root Cause	Fault due to vege Dullavcherra line		was in 132 kV D	ullavcherra - Dh	armanagar line.N	on clearance o	of fault in this	s section at Dull	lavcherra rest	ulted in tripping of	f 132 k
	Remedial Measures	Over Current se	tting at Silchar fo	or Dullavcherra	to be co-ordinate	d with that for Dr	armanager fe	eder at Dulla	vcherra.Vegetat	tion clearance	e to be done by TS	SECL.
ا – ا	132 kV Silchar -	POWERGRID	4/24/2016 18:16	Silchar	DP, ZII, Y-E	Not Furnished	No	No	Loss of Load:	GD-I	4/25/2016 16:06	i No S
<u>I</u>	Dullavcherra	& AEGCL	17 27/2010 10.10	Dullavcherra	No tripping	Not Furnished	No	No	10	0 <i>D</i> -1		1101
Ĺ		No										
ļ	-					-					managar line kept (-
l		requirement). At	18:16 Hrs on 24	1.04.16, 132 kV	Silchar- Dullavcl	herra line tripped.	Due to trippin	ng of this ele	ment, Dullavch	erra area was	s separated from re	est of N
33	Antecedent Conditions of NER Grid				., .	ा लोड/ Anteceden	nt Load : 1712	2 MW)				
Ĺ		Due to vegetation	-			ra line tripped.						
l		Vegetation clears										
									(132 kV Dullav	cherra-Dharn	managar line kept (open fo
			न/ Antecedent G			া লাঁਤ/ Anteceden	1		1 07	1		
ļ		POWERGRID	4/4/2016 2:40	Silchar		Not Furnished	No	No	Loss of Load:	GD-I	4/4/2016 3:29	No
	Dullavcherra	& AEGCL		Dullavcherra	Not Furnished	Not Furnished	No	No	3	1		1

			I ist of	Crid Disturb	oances in Nort	h-Fastern Dog	tional Crid	during Io	nuary 7 016						
—	1	1			ances in NOFL	n-Lastern Keg	gional Griu	uuring Ja	nuary 2010						
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपी संचालन विवर Detai SP Oper			
	Antecedent Conditions of NER Grid	~ -	ा उत्पादन/ Antecedent Generation : 1158 MW, पूर्ववृत्ता लोड/ Antecedent Load : 1880 MW) t lightening fault occured in the AEGCL section of 132 kV Silchar - Dullavcherra line(Fault distance shown at Silchar 25 Km.).												
	Root Cause														
	Remedial Measures	, i i i i i i i i i i i i i i i i i i i	ng as well as substation earth resistance to be checked by POWERGRID & AEGCL. In case of frequent lightning, arrester has to be kept in place.												
	132 kV Silchar -	POWERGRID	4/5/2016 11:57	Silchar	· · ·	Not Furnished	No	No	Loss of Load:	GD-I	4/8/2016 17:38	No S			
	Dullavcherra	& AEGCL		Dullavcherra	Not Furnished	Not Furnished	No	No	7	00-1		110.2			
	FIR by the constituent	No													
	Brief Description of the										managar line kept				
35	Incident	requirement). A	t 11:57 Hrs on (05.04.16 ,132 kV	V Silchar- Dullav	cherra line tripped	d. Due to tripp	oing of this el	ement, Dullave	herra area wa	s separated from r	est of l			
55	Antecedent Conditions of NER Grid				71 MW , पूर्ववृत्त			2 MW)							
	Root Cause	v 1			ion),132 kV Silch		11								
	Remedial Measures	Conditional as w	vell as period ma	intanence of line	e accessories to b	e done by POWE	RGRID & AE	EGCL and pe	trolling also to l	be done.					
	132 kV Silchar - Dullavcherra	POWERGRID & AEGCL	4/17/2016 9:19		DP, ZII, Y-B-E		No	No	Loss of Load: 4	GD-I	4/17/2016 9:33	No S			
			L	Dullavcherra	No tripping	Not Furnished	No	No							
	FIR by the constituent	No													
34	Brief Description of the Incident	requirement). A		7.04.16 , 132 kV	Silchar- Dullave	•					aanagar line kept o s separated from re	-			
	Antecedent Conditions of NER Grid				04 MW , पूर्ववृत्त		nt Load : 139	3 MW)							
	D (G	Due to lightning	t in the line,132 k		ar - Dullavcherra										
	Root Cause														
	Root Cause Remedial Measures		s well as substati	ion earth resistar			<u>) & AEGCL</u>					i			
		Tower footing a POWERGRID		ion earth resistan Silchar	DP, ZII, Y-E		No	No	Loss of Load:	CDJ	1/22/2016 15.07	N- 4			
	Remedial Measures	Tower footing a	s well as substati 4/22/2016 14:55		DP, ZII, Y-E				Loss of Load: 7	GD-I	4/22/2016 15:07	No S			

			List of	Grid Disturb	ances in Nort	h-Eastern Reg	gional Grid	during Ja	nuary 2016			
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसर्प संचाल विवर Deta SI Oper
35		requirement). At		2.04.16, 132 kV	Silchar- Dullavel						managar line kept s separated from re	
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent G	Generation : 166	64 MW , पूर्ववृत्त	ा लोड/ Anteceder	nt Load : 133	2 MW)				
(-		Due to vegetatio	n problem in the	line.132 kV Sile	char - Dullavcher	ra line tripped.						
i F		•	ance to be done l			11						
	132 kV Silchar - Dullavcherra	POWERGRID & AEGCL	5/17/2016 12:37	Silchar	DP, ZII, Y- E,56.59 Kms.	Not applicable	No No	No No	Loss of Load: 10	GD-I	5/17/2016 12:53	No
	FIR by the constituent	No		Dullavcherra	No tripping	Not applicable	INO	NO				
36 []]	Brief Description of the Incident	line kept open fo	or system require	ment). At 12:37	Hrs on 17.05.16		- Dullavcherr	a line tripped	. Due to trippin		rra line(132 kV P.1 nent,Dullavcherra	
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent G	Generation : 180)0 MW , पूर्ववृत्त	ा लोड/ Anteceder	nt Load : 127	7 MW)				
i F		A transient fault	occurred in the 1	132 kV Silchar-I	Dullavcherra Line	e beyond the juris	diction of PO	WERGRID.				
\Box	Remedial Measures	AEGCL / TSEC	L to check for the	e nature of fault	occurred. After t	hat, further analy	sis can be dor	ie;				
	132 kV Silchar - Dullavcherra	POWERGRID & AEGCL	5/12/2016 16:02	Silchar Dullavcherra	DP, ZII, B-E No tripping	Not applicable Not applicable	No No	No No	Loss of Load: 9	GD-I	5/12/2016 16:38	No
	Brief Description of the	requirement). At		2.05.16, 132 kV	V Silchar- Dullav	•					nanagar line kept o as separated from	-
Í	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 175	57 MW , पूर्ववृत्त	ा लोड/ Anteceder	nt Load : 169	3 MW)				
	Root Cause	POWERGRID's	jurisdiction (PG	jurisdiction is a	round 12 kms))						at Silchar = 64 Kn	n, whic
\Box		Problem in the d	lownstream syste	m of be cheched	•	SECL.Proper ma	intenace and t	frequent petro	olling to be don	e by AEGCL	& TSECL.	
	132 kV Silchar - Dullavcherra	POWERGRID & AEGCL	5/12/2016 16:51	Silchar Dullavcherra	DP, ZII, B-E No tripping	Not applicable Not applicable	No No	No No	Loss of Load: 9	GD-I	5/12/2016 18:17	No
1 0	FIR by the constituent	No										
		Dullavcherra are										

			List of	Grid Disturb	oances in North	n-Eastern Reg	ional Grid	during Jar	uary 2016					
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU	
	132 kV Haflong(PG) -	AEGCL	4/5/2016 19:43	Haflong(PG)	Over current	Not applicable	No	No	Loss of Load:	GD-I	4/5/2016 19:50	No SPS	0.001	
	Haflong	N-		Haflong	Not Furnished	Not applicable	No	No	2					
		No												
											32kV Haflong (AS	S)-Haflong(P	G) line	
39	Incident	tripped. Due to t	tripping of this el	ement, Haflong	area was separate	d from rest of NE	R Grid and su	ubsequently c	ollapsed due to	no source in	this area.			
	Antecedent Conditions of NER Grid		e to tripping of this element, Haflong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area. त्पादन/ Antecedent Generation : 1695 MW , पूर्ववृत्ता लोड/ Antecedent Load : 2263 MW) n of haflong or in line phase to phase fault cleared at Haflong(PG). Only phase-phase fault will likely cause overcurrent, if no earth fault relay operated.											
	Root Cause	Downstream of	haflong or in line	e phase to phase	fault cleared at H	Iaflong(PG). Only	y phase-phase	fault will like	ely cause overc	urrent, if no e	earth fault relay op	erated.		
	Remedial Measures	AEGCL shall lo	ok in to this mat	ter immediately.										
	132 kV Haflong(PG) - Haflong	AEGCL	4/12/2016 5:11	Haflong(PG) Haflong	Over current Not Furnished	Not applicable Not applicable	No No	No No	Loss of Load: 2	GD-I	4/12/2016 5:35	No SPS	0.001	
	FIR by the constituent	No	-			-	-	-	-	-	-			
	Brief Description of the	Haflong area of	Assam was conn	ected with rest	of NER Grid throu	ugh 132kV Haflor	ng (AS)-Hafle	ong(PG) line.	At 05:11 Hrs o	n 12.04.16, 1	32kV Haflong (AS	S)-Haflong(P	G) line	
40	Incident	tripped. Due to	tripping of this el	ement, Haflong	area was separate	d from rest of NE	R Grid and su	ubsequently c	ollapsed due to	no source in	this area.			
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent (Generation : 14	00 MW , पूर्ववृत्त	ा लोड/ Anteceden	t Load : 1430	5 MW)						
	Root Cause	In downstream of	of Haflong or in l	ine phase to pha	ase fault cleared a	t Haflong(PG). C	only phase-pha	se fault will	likely cause ove	crcurrent, if n	o earth fault relay	operated.		
	Remedial Measures	AEGCL shall lo	ok in to this mat	ter immediately.										
	132 kV Haflong(PG) - Haflong	AEGCL	5/1/2016 19:32	Haflong(PG) Haflong	Over current Not Furnished	Not applicable Not applicable	No No	No No	Loss of Load: 2	GD-I	5/1/2016 19:50	No SPS	0.001	
	FIR by the constituent	No												
41	Brief Description of the Incident				of NER Grid throu area was separate						32kV Haflong (As this area.	S)-Haflong(P	G) line	
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 15	19 MW , पूर्ववृत्त	ा लोड/ Anteceden	t Load : 152	5 MW)						
	Root Cause	Likely due to do	wnstream Phase	-Phase fault.										
	Remedial Measures	Relay co-ordina	tion at downstrea	um level to be do	one by AEGCL in	consultation with	POWERGR	ID.						
	132 kV Haflong(PG) - Haflong	AEGCL	6/15/2016 13:31	Haflong(PG) Haflong	Earth Fault, R- ph Not Furnished	Not applicable Not applicable	No No	No No	Loss of Load: 2	GD-I	6/15/2016 13:48	No SPS	0.001	
	FIR by the constituent	No	-	¥	-		-	-	-	-	-			

			List of	Grid Disturl	oances in North	1-Eastern Reg	ional Grid	during Jar	nuary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
42	Brief Description of the Incident				of NER Grid throug area was separate	•						S)-Haflong(P	G) line
	Antecedent Conditions of NER Grid	(Antecedent G	eneration : 1498	MW , Anteced	lent Load : 1617	MW)							
	Root Cause												
	Remedial Measures												
			1	1	1	1	1	1	1	1	-		
	132 kV Khandong - Umrangso	POWERGRID & AEGCL		Khandong	Master Trip Relay Opearted	Lockout	No	No			6/28/2016 14:08	No SPS	
	132 kV Khandong - Umrangso	POWERGRID & AEGCL		Khandong Umrangso	Relay Opearted Not Furnished	Lockout Not Furnished	No No	No No	Loss of Load:		6/28/2016 14:08	No SPS	
	0	& AEGCL	6/28/2016 13:45	÷	Relay Opearted Not Furnished				Loss of Load: 2	GD-I			0.001
	Umrangso		6/28/2016 13:45	Umrangso	Relay Opearted Not Furnished DP, ZI, B-E,	Not Furnished	No	No		GD-I	6/28/2016 14:08 6/28/2016 14:14		0.001
43	Umrangso 132 kV Haflong(PG) -	& AEGCL	6/28/2016 13:45	Umrangso Haflong(PG)	Relay Opearted Not Furnished DP, ZI, B-E, 76.6 Kms. DP, ZI, B-E,	Not Furnished Not Furnished	No	No No		GD-I			0.001
43	Umrangso 132 kV Haflong(PG) - Jiribam	& AEGCL POWERGRID No Umrangso & Ha 132 kV Khando	aflong area of As	Umrangso Haflong(PG) Jiribam sam were conne ne & 132 kV H	Relay Opearted Not Furnished DP, ZI, B-E, 76.6 Kms. DP, ZI, B-E, 21.6 Kms.	Not Furnished Not Furnished Not Furnished NER Grid through	No No 132 kV Khar	No No No ndong-Umrar	2 ngsho line & 132	2 kV Haflon	6/28/2016 14:14 g-Jiribam line .At	No SPS 13:45 Hrs on	28.06.16,
43	Umrangso 132 kV Haflong(PG) - Jiribam FIR by the constituent Brief Description of the	& AEGCL POWERGRID No Umrangso & Ha 132 kV Khando Grid and subsec	aflong area of Asang-Umrangsho li	Umrangso Haflong(PG) Jiribam sam were conne ne & 132 kV H due to no source	Relay Opearted Not Furnished DP, ZI, B-E, 76.6 Kms. DP, ZI, B-E, 21.6 Kms. ected with rest of N faflong-Jiribam lin ee in this area.	Not Furnished Not Furnished Not Furnished NER Grid through	No No 132 kV Khar	No No No ndong-Umrar	2 ngsho line & 132	2 kV Haflon	6/28/2016 14:14 g-Jiribam line .At	No SPS 13:45 Hrs on	28.06.16,
43	Umrangso 132 kV Haflong(PG) - Jiribam FIR by the constituent Brief Description of the Incident Antecedent Conditions	& AEGCL POWERGRID No Umrangso & Ha 132 kV Khando Grid and subsec	aflong area of Asa ng-Umrangsho li juently collapsed	Umrangso Haflong(PG) Jiribam sam were conne ne & 132 kV H due to no source	Relay Opearted Not Furnished DP, ZI, B-E, 76.6 Kms. DP, ZI, B-E, 21.6 Kms. ected with rest of N faflong-Jiribam lin ee in this area.	Not Furnished Not Furnished Not Furnished NER Grid through	No No 132 kV Khar	No No No ndong-Umrar	2 ngsho line & 132	2 kV Haflon	6/28/2016 14:14 g-Jiribam line .At	No SPS 13:45 Hrs on	28.06.16,

			List of	Grid Disturb	oances in North	n-Eastern Reg	ional Grid	during Jar	uary 2016						
क्रम सं छया/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU		
	132 kV Gohpur - Nirjuli	POWERGRID	1/19/2016 11:35	Gohpur	No tripping	Not Furnished	No	No	Loss of Load:	GD-I	1/19/2016 11:46	No SPS	120		
	FIR by the constituent	No		Nirjuli	DP, ZI, R-Y-E	Not Furnished	No	No	15						
44	Brief Description of the Incident	Gohpur Area of 19.01.2016 ,132	of Assam was connected with rest of NER Grid through 132 kV Gohpur - Nirjuli line (Bus Coupler CB of Gohpur kept open for system requirement). At 11:35 Hrs on 132 kV Gohpur - Nirjuli line tripped. Due to tripping of this element, Gohpur area was separated from rest of NER Grid and subsequently collapsed due to no source in ad loss in MU:0.002) मादन/ Antecedent Generation : 1063 MW , पूर्ववृत्ता लोड/ Antecedent Load : 1472 MW)												
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	पादन/ Antecedent Generation : 1063 MW , पूर्ववृत्ता लोड/ Antecedent Load : 1472 MW)												
	Restoration Details	Power extended													
	Root Cause	Un-known misc police station.	nded to Gohpur Area of Assam at 11:46 Hrs on 19.01.16 through 132 kV Gohpur - Nirjuli line. miscreants had cut a big treee and feel on the line between Loc 106-107 at village Durpang, causing damage to the towers and conductors. FIR was filed in the nearest												
	Remedial Measures	Vegetation clear	ance on up-hill s	ide to be done.											
	132 kV Gohpur - Nirjuli	POWERGRID	5/10/2016 12:30	Gohpur Nirjuli		Not applicable Not applicable	No No	No No	Loss of Load: 26	GD-I	5/10/2016 12:55	No SPS	0.004		
	FIR by the constituent	No		,	1 0				A.		8				
45	Brief Description of the Incident	shutdown from (09:00 Hrs on 10.0	05.16). At 12:30	were connected w 0 Hrs on 10.05.16, ed due to no sourc	132 kV Gohpur-									
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 13	78 MW , पूर्ववृत्त	ा लोड/ Anteceden	t Load : 1570) MW)							
	Root Cause	As reported from	n Nirjuli sub stati	ion the incomin	g power at Gohpu	r failed. No probl	em in line, as	recorded by (CPCC, NERTS.						
	Remedial Measures				EGCL to furnish c eck relay settings a					oblem in line	e, NERTS can take	e up for rectif	fication. If		
	132 kV Silchar -	POWERGRID		Silchar	DP, ZII, B-E	Not applicable	No	No			5/12/2016 18:17	No SPS			
	Dullavcherra	& AEGCL	5/12/2016 16:51	Dullavcherra		Not applicable	No	No			5/12/2010 18.17	110 515			
	132 kV Silchar -	POWERGRID	5/12/2010 10:51	Silchar		Not applicable	No	No			5/12/2016 18:50	No SPS			
	Panchgram	& AEGCL		Panchgram	1	Not applicable	No	No							
	132 kV Srikona -	AEGCL		Srikona	No tripping	Not applicable	No	No	Loss of Load:	GD-I	5/12/2016 17:38	No SPS	0.004		
	Panchgram			Panchgram	Earth Fault	Not applicable	No	No	24						
	132 kV Silchar - Srikona I	POWERGRID	5/12/2016 16:58	Silchar Srikona		Not applicable Not applicable	No No	No No			5/12/2016 17:36	No SPS			
				Silchar		Not applicable	No	No							
	137 kV Silchar - Srikona II	PUWERGRID	• •						3	1	5/12/2016 17.38	No SDS	ı I		

			List of	Grid Disturl	bances in Nortl	1-Eastern Reg	ional Grid	during Jar	nuary 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	152 KV Shchai - Shkoha II	TOWEROKID		Srikona	No tripping	Not applicable	No	No			5/12/2010 17.30	10 51 5	
46	FIR by the constituent	No			-			-	-				
	Brief Description of the Incident	Silchar-Panchgra 16:51 Hrs on 12	am line (132 kV .05.16 , 132 kV	Panchgram-Lui Silchar-Panchgr	a) was connected w msshnong line,132 ram line tripped an ving of these eleme	kV Pailapool-Jir d at 16:58 Hrs on	ibam line and 12.05.16 ,132	132 kV Dull 2 kV Silchar	avcherra-Dharn - Dullavcherra l	nanagar line ine,132 kV S	kept open for syste Srikona - Panchgra	em requireme um line & 132	ent).At 2 kV
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 17	737 MW , पूर्ववृ <i>त्</i> त	ा लोड/ Anteceden	t Load : 1694	4 MW)					
	Root Cause	Likely due to ve	getation problem	in 132 kV Srik	kona - Panchgram,	132 kV Silchar -	Panchgram &	132 kV Srik	ona - Panchgra	m lines trippe	ed at Panchgram.		
	Remedial Measures	Directionality of be done by AEG		Relays at Panch	ngram for the abov	e two feeders to b	e checked.Pro	otection at Sr	ikona for Panch	gram - Sriko	na to be verified.V	egetation cle	arence to
	132 kV Biswanath Charali- Pavoi I	POWERGRID		Biswanath Charali	No tripping	Not Furnished	No	No			1/25/2016 19:56	No SPS	
				Pavoi	Not Furnished	Not Furnished	No	No	4				
	132 kV Biswanath Charali- Pavoi II	POWERGRID	1/25/2016 18:34	Biswanath Charali Pavoi	Over current Not Furnished	Not applicable Not applicable	No No	No No	Loss of Load: 183	GD-I	1/25/2016 19:27	No SPS	0.155
	220/132 kV, 50 MVA ICT I at Balipara	NEEPCO		Balipara	Over current	Not applicable	No	No	185		1/25/2016 19:30	No SPS	
	220/132 kV,50 MVA ICT II at Balipara	AEGCL		Balipara	Over current	Not applicable	No	No	1		1/25/2016 21:15	No SPS	
47	FIR by the constituent	No											
47	Brief Description of the Incident	MVA ICT I&II a 25.01.2016 ,132	at Balipara (132 kV Biswanath C	kV Rangia-Sipa Charali-Pavoi I&	Pavoi areas of Asa ajhar line, 132 kV &II lines and 220/1 rid and subsequent	Rangia-Rowta lin 32 kV,50 MVA I	e & 132 kV S CT I&II at Ba	amaguri-Dep lipara tripped	ota line kept op	en for syster	n requirement) . A	t 18:34 Hrs o	n
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 18	314 MW , पूर्ववृत्त	ा लोड/ Anteceden	t Load : 2162	2 MW)					
	Restoration Details		to Pavoi area thr round 19:30 Hrs	•	Biswanath Charali-	Pavoi II at around	19:27 Hrs on	25.01.16. Po	ower extended to	o 132 kV bus	s at Balipara throu	gh 220/132 k	V, 50
1	Root Cause	D 1	figuration proble	(D									

			List of	Ollu Distui			ional orlu	uuring Jai					
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Remedial Measures	The relay config	guration problem	has already bee	en attended.	-			-				
	132 kV Biswanath Charali- Pavoi I	POWERGRID		Biswanath Charali	No tripping	Not Furnished	No	No			1/26/2016 12:36	No SPS	
	1 4001 1		1/25/2016 20:30	Pavoi	Earth Fault	Not Furnished	No	No	Loss of Load:	GD-I			0.062
	132 kV Biswanath Charali- Pavoi II	POWERGRID	1,20,2010 20100	Biswanath Charali	Directional Earth Fault	Not Furnished	No	No	80	ו-עט	1/25/2016 21:16	No SPS	0.002
				Pavoi	Earth Fault	Not Furnished	No	No			L		
	FIR by the constituent	No											
		DOD	Depota & Pavoi areas of Assam were connected with rest of NER Grid through 132 kV Biswanath Charali-Pavoi I&II lines (132 kV Pavoi-Depota line and 132 kV Pavoi-Samaguri ne kept open for system requirement and 132 kV Depota-Balipara line was not restored after tripping). At 20:30 Hrs on 25.01.2016, 132 kV Biswanath Charali-Pavoi I&II lines ipped. Due to tripping of these elements, Pavoi area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.(Load loss in MU:0.062)										
48	Brief Description of the Incident	line kept open fo	or system require	ment and 132 k	V Depota-Balipar	a line was not res	tored after trip	oping). At 20	:30 Hrs on 25.0	01.2016, 132	kV Biswanath Ch	arali-Pavoi I	&II lines
48	-	line kept open fo tripped. Due to t	or system require tripping of these	ment and 132 k elements, Pavo	V Depota-Balipar	a line was not res ed from rest of NI	tored after trip ER Grid and su	oping). At 20 ubsequently c	:30 Hrs on 25.0	01.2016, 132	kV Biswanath Ch	arali-Pavoi I	&II lines
48	Incident Antecedent Conditions	line kept open fo tripped. Due to t (पूर्ववृत्ता उत्पाद	or system require tripping of these न/ Antecedent C	ment and 132 k elements, Pavo Generation : 16	cV Depota-Balipar i area was separate	a line was not res ed from rest of NH T लोड/ Anteceder	tored after trip ER Grid and su nt Load : 2171	oping). At 20 ubsequently c I MW)	:30 Hrs on 25.0 collapsed due to	01.2016, 132	kV Biswanath Ch	arali-Pavoi I	&II lines
48	Incident Antecedent Conditions of NER Grid	line kept open fo tripped. Due to t (पूर्ववृत्ता उत्पाद Power extended Y-Phase jumper	or system require tripping of these न/ Antecedent C to Pavoi area of	ment and 132 k elements, Pavo Generation : 16 Assam at 21:16 -1 at Loc 16. T	xV Depota-Balipar i area was separate 638 MW , पूर्ववृत्त 6 Hrs on 25.01.16 he Circuit -2 trippe	a line was not res ed from rest of NF T लोड/ Anteceder through 132 kV F	tored after trip ER Grid and su ht Load : 217 Biswanath Cha	oping). At 20 ubsequently o I MW) ırali-Pavoi II	:30 Hrs on 25.0 collapsed due to line.	01.2016 , 132 no source in	kV Biswanath Ch this area.(Load lo	arali-Pavoi Ia ss in MU:0.0	&II lines 52)
48	Incident Antecedent Conditions of NER Grid Restoration Details	line kept open fo tripped. Due to t (पूर्ववृत्ता उत्पाद Power extended Y-Phase jumper incidents of jum	ar system require tripping of these न/ Antecedent C to Pavoi area of failed in Circuit	ment and 132 k elements, Pavo Generation : 10 Assam at 21:10 -1 at Loc 16. Th occurred since	cV Depota-Balipar i area was separate 638 MW , पूर्ववृत्त 6 Hrs on 25.01.16 he Circuit -2 trippe then.	a line was not res ed from rest of NF T लोड/ Anteceder through 132 kV F	tored after trip ER Grid and su ht Load : 217 Biswanath Cha	oping). At 20 ubsequently o I MW) ırali-Pavoi II	:30 Hrs on 25.0 collapsed due to line.	01.2016 , 132 no source in	kV Biswanath Ch this area.(Load lo	arali-Pavoi Ia ss in MU:0.0	&II lines 52)
48	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Biswanath Charali-	line kept open fo tripped. Due to t (पूर्ववृत्ता उत्पाद Power extended Y-Phase jumper incidents of jum	 or system require tripping of these of Antecedent (to Pavoi area of failed in Circuit- per failure have of 	ment and 132 k elements, Pavo Generation : 10 Assam at 21:10 -1 at Loc 16. Th occurred since t is to be explor Biswanath Charali	cV Depota-Balipar i area was separate 6 38 MW , पूर्ववृत्त 6 Hrs on 25.01.16 he Circuit -2 trippe then. red. Earth Fault	a line was not rest ed from rest of NF T लोड/ Anteceder through 132 kV F ed on overload , s Not applicable	tored after trip ER Grid and su at Load : 2171 Biswanath Cha ubsequently. (No	pping). At 20 ubsequently of I MW) rali-Pavoi II Over loading No	:30 Hrs on 25.0 collapsed due to line.	01.2016 , 132 no source in	kV Biswanath Ch this area.(Load lo	arali-Pavoi Ia ss in MU:0.0	&II lines 52)
48	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures	line kept open for tripped. Due to t (पूर्ववृत्ता उत्पाद Power extended Y-Phase jumper incidents of jum Alternative conr	 or system require tripping of these of Antecedent (to Pavoi area of failed in Circuit- per failure have of 	ment and 132 k elements, Pavo Generation : 10 Assam at 21:10 -1 at Loc 16. Tl occurred since t is to be explor Biswanath Charali Pavoi	xV Depota-Balipar i area was separate 638 MW , पूर्ववृत्त 6 Hrs on 25.01.16 he Circuit -2 trippe then. ed.	a line was not res ed from rest of NF T लोड/ Anteceder through 132 kV E ed on overload , s	tored after trip ER Grid and su at Load : 217 Biswanath Cha ubsequently.	pping). At 20 ubsequently o I MW) rali-Pavoi II Over loading	:30 Hrs on 25.0 collapsed due to line.	01.2016 , 132 no source in	k V Biswanath Ch this area.(Load lo voi line is very con	arali-Pavoi Id ss in MU:0.0 nmon and so	&II lines 52)
48	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Biswanath Charali-	line kept open for tripped. Due to t (पूर्ववृत्ता उत्पाद Power extended Y-Phase jumper incidents of jum Alternative conr	 or system require tripping of these of Antecedent (to Pavoi area of failed in Circuit- per failure have of 	ment and 132 k elements, Pavo Generation : 16 Assam at 21:16 -1 at Loc 16. Th occurred since t is to be explor Biswanath Charali Pavoi Biswanath Charali	tv Depota-Balipar i area was separate 638 MW , पूर्ववृत्त 6 Hrs on 25.01.16 he Circuit -2 trippe then. red. Earth Fault Earth Fault Over current	a line was not res ed from rest of NF T लोड/ Anteceder through 132 kV E ed on overload , s Not applicable Not applicable Not applicable	tored after trip ER Grid and su at Load : 2171 Biswanath Cha ubsequently. (No No No	pping). At 20 ubsequently of I MW) rali-Pavoi II Over loading No No No	:30 Hrs on 25.0 collapsed due to line.	01.2016 , 132 no source in	k V Biswanath Ch this area.(Load lo voi line is very con	arali-Pavoi Id ss in MU:0.0 nmon and so	&II lines 52)
48	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Biswanath Charali- Pavoi I 132 kV Biswanath Charali-	line kept open for tripped. Due to t (पूर्ववृत्ता उत्पाद Power extended Y-Phase jumper incidents of jum Alternative com POWERGRID	or system require tripping of these of of Antecedent C to Pavoi area of failed in Circuit- per failure have of nectivity to Pavoi	ment and 132 k elements, Pavo Generation : 10 Assam at 21:10 -1 at Loc 16. Th occurred since to is to be explor Biswanath Charali Pavoi Biswanath Charali Pavoi	tv Depota-Balipar i area was separate 638 MW , पूर्ववृत्त 6 Hrs on 25.01.16 he Circuit -2 trippe then. ed. Earth Fault Earth Fault Over current Hand Tripped	a line was not rest ad from rest of NF T लोड/ Anteceder through 132 kV F ad on overload , st Not applicable Not applicable Not applicable Not applicable	tored after trip ER Grid and sunt at Load : 2171 Biswanath Cha ubsequently. (No No No No	pping). At 20 ubsequently of MW) rali-Pavoi II Over loading No No No	:30 Hrs on 25.0 collapsed due to line. of the 132 kV l Loss of Load:	D/C BNC-Pa	2 kV Biswanath Ch this area.(Load lo voi line is very con 5/12/2016 22:09	arali-Pavoi Id ss in MU:0.0 nmon and so No SPS	&II lines 62) me more
48	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Biswanath Charali- Pavoi I 132 kV Biswanath Charali- Pavoi I	line kept open for tripped. Due to t (पूर्ववृत्ता उत्पाद Power extended Y-Phase jumper incidents of jum Alternative com POWERGRID	or system require tripping of these of of Antecedent C to Pavoi area of failed in Circuit- per failure have of nectivity to Pavoi	ment and 132 k elements, Pavo Generation : 10 Assam at 21:10 -1 at Loc 16. Th occurred since t is to be explor Biswanath Charali Pavoi Biswanath Charali Pavoi Depota	tv Depota-Balipar i area was separate 638 MW , पूर्ववृत्त 6 Hrs on 25.01.16 he Circuit -2 trippe then. ed. Earth Fault Earth Fault Over current Hand Tripped Earth Fault	a line was not res d from rest of NF T लोड/ Anteceder through 132 kV E d on overload , s Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable	tored after trip ER Grid and sunt at Load : 2171 Biswanath Cha ubsequently. (No No No No No No	pping). At 20 ubsequently of MW) rali-Pavoi II Over loading No No No No	:30 Hrs on 25.0 collapsed due to line. of the 132 kV l Loss of Load:	D/C BNC-Pa	2 kV Biswanath Ch this area.(Load lo voi line is very con 5/12/2016 22:09	arali-Pavoi Id ss in MU:0.0 nmon and so No SPS	&II lines 62) me more
48	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Biswanath Charali- Pavoi I 132 kV Biswanath Charali- Pavoi II 132 kV Depota - Sonabil	line kept open for tripped. Due to t (पूर्ववृ त्ता उत्पाद Power extended Y-Phase jumper incidents of jum Alternative conr POWERGRID POWERGRID AEGCL	or system require tripping of these of of Antecedent C to Pavoi area of failed in Circuit- per failure have of nectivity to Pavoi	ment and 132 k elements, Pavo Generation : 10 Assam at 21:10 -1 at Loc 16. Th occurred since to is to be explor Biswanath Charali Pavoi Biswanath Charali Pavoi	tv Depota-Balipar i area was separate 638 MW , पूर्ववृत्त 6 Hrs on 25.01.16 he Circuit -2 trippe then. ed. Earth Fault Earth Fault Over current Hand Tripped	a line was not rest ad from rest of NF T लोड/ Anteceder through 132 kV F ad on overload , st Not applicable Not applicable Not applicable Not applicable	tored after trip ER Grid and sunt at Load : 2171 Biswanath Cha ubsequently. (No No No No	pping). At 20 ubsequently of MW) rali-Pavoi II Over loading No No No	:30 Hrs on 25.0 collapsed due to line. of the 132 kV l Loss of Load:	D/C BNC-Pa	2 kV Biswanath Ch this area.(Load lo voi line is very con 5/12/2016 22:09 5/13/2016 16:43	arali-Pavoi Id ss in MU:0.00 nmon and so No SPS No SPS	&II lines 62) me more
48	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Biswanath Charali- Pavoi I 132 kV Biswanath Charali- Pavoi I	line kept open for tripped. Due to t (पूर्ववृत्ता उत्पाद Power extended Y-Phase jumper incidents of jum Alternative conr POWERGRID POWERGRID AEGCL No	or system require tripping of these of of Antecedent C to Pavoi area of failed in Circuit- per failure have of nectivity to Pavoi 5/12/2016 20:01	ment and 132 k elements, Pavo Generation : 10 Assam at 21:10 -1 at Loc 16. Th occurred since t is to be explor Biswanath Charali Pavoi Biswanath Charali Pavoi Depota Sonabil	cV Depota-Balipar i area was separate 638 MW , पूर्ववृत्त 6 Hrs on 25.01.16 he Circuit -2 trippe then. ed. Earth Fault Earth Fault Over current Hand Tripped Earth Fault Earth Fault	a line was not rest of from rest of NF T rdfs/ Anteceder through 132 kV E ed on overload , st Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable	tored after trip ER Grid and su at Load : 2171 Biswanath Cha ubsequently. O No No No No No No	pping). At 20 absequently of MW) rali-Pavoi II Over loading No No No No No	:30 Hrs on 25.0 collapsed due to line. of the 132 kV l Loss of Load: 124	D/C BNC-Pa	2 kV Biswanath Ch this area.(Load lo voi line is very con 5/12/2016 22:09 5/13/2016 16:43 5/12/2016 20:57	arali-Pavoi Id ss in MU:0.00 nmon and so No SPS No SPS No SPS	&II lines 62) me more 0.116
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Biswanath Charali- Pavoi I 132 kV Biswanath Charali- Pavoi II 132 kV Depota - Sonabil	line kept open for tripped. Due to the (पूर्ववृत्ता उत्पाद Power extended Y-Phase jumper incidents of jum Alternative conr POWERGRID POWERGRID AEGCL No Pavoi area of As open for system	 system require tripping of these of all Antecedent C to Pavoi area of failed in Circuit- per failure have on the ctivity to Pavoi 5/12/2016 20:01 ssam was connec requirement). At 	ment and 132 k elements, Pavo Generation : 10 Assam at 21:10 -1 at Loc 16. Th occurred since to is to be explor Biswanath Charali Pavoi Biswanath Charali Pavoi Depota Sonabil ted with rest of 20:01 Hrs on	tv Depota-Balipar i area was separate 638 MW , पूर्ववृत्त 6 Hrs on 25.01.16 he Circuit -2 trippe then. ed. Earth Fault Earth Fault Over current Hand Tripped Earth Fault	a line was not res ad from rest of NH T rig/Anteceder through 132 kV H ad on overload, s Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable	tored after trip ER Grid and su at Load : 2171 Biswanath Cha ubsequently. O No No No No No ath Charali-Pa -Pavoi I&II lin	pping). At 20 absequently of MW) rali-Pavoi II Over loading No No No No No No No No	:30 Hrs on 25.0 collapsed due to line. of the 132 kV 1 Loss of Load: 124 s & 132 kV Dep 7 Depota - Sona	D/C BNC-Pa GD-I	2 kV Biswanath Ch this area.(Load lo voi line is very con 5/12/2016 22:09 5/13/2016 16:43 5/12/2016 20:57 l line (Bus Couple	arali-Pavoi Id ss in MU:0.00 nmon and so No SPS No SPS No SPS	&II lines 62) me more 0.116 pur kept
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Biswanath Charali- Pavoi I 132 kV Biswanath Charali- Pavoi II 132 kV Depota - Sonabil FIR by the constituent Brief Description of the	line kept open for tripped. Due to the (पूर्ववृ त्ता उत्पाद Power extended Y-Phase jumper incidents of jum Alternative conr POWERGRID POWERGRID AEGCL No Pavoi area of As open for system Pavoi area of As	or system require tripping of these of 	ment and 132 k elements, Pavo Generation : 10 Assam at 21:10 -1 at Loc 16. Th occurred since to is to be explor Biswanath Charali Pavoi Biswanath Charali Pavoi Depota Sonabil ted with rest of c 20:01 Hrs on ed from rest of	cV Depota-Balipar i area was separate 638 MW, पूर्ववृत्त 6 Hrs on 25.01.16 he Circuit -2 trippe he Circuit -2 trippe then. ed. Earth Fault Earth Fault Over current Hand Tripped Earth Fault Earth Fault Ith Earth Fault Earth Fault Earth Fault Ith Earth Fault Earth Fault	a line was not rest of from rest of NF T rdfs/ Anteceder through 132 kV E ed on overload , st Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable not applicable not applicable not applicable	tored after trip ER Grid and su at Load : 2171 Biswanath Cha ubsequently. (No No No No No No ath Charali-Pa -Pavoi I&II lin sed due to no s	pping). At 20 absequently of MW) rali-Pavoi II Over loading No No No No No No No No No No No Source in this	:30 Hrs on 25.0 collapsed due to line. of the 132 kV 1 Loss of Load: 124 s & 132 kV Dep 7 Depota - Sona	D/C BNC-Pa GD-I	2 kV Biswanath Ch this area.(Load lo voi line is very con 5/12/2016 22:09 5/13/2016 16:43 5/12/2016 20:57 l line (Bus Couple	arali-Pavoi Id ss in MU:0.00 nmon and so No SPS No SPS No SPS	&II lines 62) me more 0.116 pur kept

			List of	Grid Disturk	ances in North	-Eastern Reg	ional Grid	during Jan	uary 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	output furnished within 24	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Remedial Measures	Alternate connectivity between Balipara (PG) and Pavoi to be explored. Mean while, POWERGRID has carried out jumper tightening in all locations of the 132 kV D/C BNC-Pavoi line. If such trippings still repeated, PG may do Jumper Strengthening for this section.											
	132 kV BTPS - Dhaligaon I	AEGCL		BTPS	other indication	Lockout	No	No	Loss of Load: 101	GD-I	6/26/2016 13:04	No SPS	
			6/26/2016 12:46	Dhaligaon	DP, ZI, Y-B-E, 8 Kms.	Not Furnished	No	No					0.038
	132 kV BTPS - Dhaligaon II	AEGCL		BTPS	186 A-B operated, No other indication	Lockout	No	No			6/26/2016 19:44	No SPS	0.050
50	11			Dhaligaon	DP, ZI, Y-B-E, 8 Kms.	Not Furnished	No	No					
	FIR by the constituent	No											
	Brief Description of the Incident	Dhaligaon area of Assam was connected with rest of NER Grid through 132 kV Dhaligaon-BTPS I & II lines (132 kV Rangia-Bornagar line & 132 kV Rangia-Nalbari line kept open for system requirement). At 1246 Hr on 26.06.16,132 kV Dhaligaon-BTPS I & II lines tripped. Due to tripping of these elements, Dhaligaon area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.											
	Antecedent Conditions of NER Grid	(Antecedent G	eneration : 1870	MW, Anteced	lent Load : 1595	MW)							
	Root Cause												
	Remedial Measures												

			List of G	rid Disturba	ances in North	h-Eastern Reg	ional Grid	during Jar	uary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर दवारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Imphal (PG) - Imphal (MA) I	POWERGRID	1/4/2016 4:37	Imphal (PG) Imphal	Earth Fault Not Furnished	Not Furnished Not Furnished	No No	No No	Loss of Load: 40	GD-I	1/4/2016 14:18	No SPS	0.04
	132 kV Imphal (PG) - Imphal (MA) II	POWERGRID/ MSPCL	1/4/2010 4.37	Imphal (PG) Imphal	Earth Fault Not Furnished	Not Furnished Not Furnished	No No	No No			1/5/2016 14:45	No SPS	0.04
	FIR by the constituent	No											
51	Brief Description of the Incident	Kohima line kep	ot open for syster	n requirement).	At 04:37 Hrs on		√ Imphal-Impl				ning-Kongba line these elements, C		
	Antecedent Conditions of NER Grid					ता लोड/ Antecede							
	Restoration Details					:18 Hrs on 04.01.							
	Root Cause	Fault was in Ma	nipur system and	cleared at Imp	hal(PG). Trippin	g of incoming fee	ders occurred	due to non cl	earance of fault	within Mani	pur system. Earth	quake of mag	gnitude 6.7
	Remedial Measures	Relay coordinat	ion has to be don	e by MSPCL in	consultation wit	h PG.							
	132 kV Imphal (PG) - Imphal (MA) I	POWERGRID	1/5/2016 14-54	Imphal (PG) Imphal	Earth Fault Tripping due to Y-Phase Circuit II LA blast	Not Furnished Not Furnished	No No	No	Loss of Load: 53		1/5/2016 15:40	No SPS	0.038
	132 kV Imphal (PG) - Imphal (MA) II	POWERGRID/ MSPCL	1/5/2016 14:54	Imphal (PG) Imphal	Earth Fault Tripping due to Y-Phase Circuit II LA blast	Not Furnished	No No	No No		GD-I	1/6/2016 7:58	No SPS	0.038
52	FIR by the constituent	No											
	Brief Description of the Incident	Capital area & Karong Area of Manipur was 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 14:54 Hrs on 05:01.16, 132 kV Imphal-Imphal I & II lines tripped. Due to tripping of these elements, Capital area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.(ICoad loss in MU:0.038)											
	Antecedent Conditions of NER Grid					ता लोड/ Antecede							
	Restoration Details	Power extended	to Capital area &	k Karong Area	of Manipur at 15	:40 Hrs on 05.01.	16 through 13	2 kV Imphal	(PG) - Imphal (MA) I line.			
	Root Cause	Tripping of inco	ming feeders occ	curred due to Y-	Phase Circuit II	LA blast .							
	Remedial Measures	as per clause no		Standards),20	10.MSPCL shall						nce procedure for place of traditional		ents in line
	132 kV Imphal (PG) - Imphal (MA) I	POWERGRID	1/12/2016 8:53	Imphal (PG) Imphal	Earth Fault Earth Fault	Not applicable Not applicable	No No	No No	Loss of Load: 65	GD-I	1/12/2016 9:48	No SPS	0.048
	132 kV Imphal (PG) - Imphal (MA) II	POWERGRID/ MSPCL		Imphal (PG) Imphal	Earth Fault Earth Fault	Not applicable Not applicable	No No	No No			1/12/2016 9:49	No SPS	
	FIR by the constituent	No											

				rid Disturba	ances in North	n-Eastern Reg							
क्रम सं छया/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभा (मेगावा लोड उत्पादन हानि) / 1 (Loss Load Gener: in M				
53	Brief Description of the Incident	Kohima line kep	ot open for system	n requirement).	At 08:53 Hrs on	of NER Grid thro 12.01.2016,132 apsed due to no s	kV Imphal-In	iphal I & II li					
	Antecedent Conditions of NER Grid												
	Restoration Details		ower extended to Capital area & Karong area of Manipur at 09:48 Hrs on 12.01.16 through 132 kV Imphal (PG) - Imp										
	Root Cause	Fault was in Manipur system and cleared at Imphal(PG) tripping incoming feeders due to non clearance of fault with											
	Remedial Measures	Fault was in Manipur system and cleared at Imphal(PG) tripping incoming feeders Relay coordination has to be done by Manipur in consultation with PG. Directiona done by MSPCL.			l feature of ea	ction at II							
	132 kV Imphal (PG) - Imphal (MA) I	POWERGRID	1/14/2016 7:39	Imphal (PG) Imphal	Earth Fault Not Furnished	Not Furnished Not Furnished	Yes No	No No	Loss of				
	132 kV Imphal (PG) - Imphal (MA) II	POWERGRID/ MSPCL	1/14/2010 7.39	Imphal (PG) Imphal	Earth Fault Not Furnished	Not Furnished Not Furnished	Yes No	No No	54				
	FIR by the constituent	No							8				
54	Brief Description of the Incident	Kohima line kep	ot open for system	n requirement).	At 07:39 Hrs on	of NER Grid thro 14.01.2016,132 apsed due to no s	kV Imphal-In	iphal I & II li					
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent G	Generation : 14	01 MW , पूर्ववृत्त	ता लोड/ Antecede	nt Load : 192	24 MW)					
	Restoration Details					56 Hrs on 14.01.1							
	Root Cause					incoming feeders							
	Remedial Measures	Relay coordinat	ion has to be don		T	th PG.Vegetation	r		SPCL.				
	132 kV Imphal (PG) - Imphal (MA) I	POWERGRID	1/21/2016 7:46	Imphal (PG) Imphal	Earth Fault Not Furnished	Not Furnished Not Furnished	No No	No No	Loss of				
	132 kV Imphal (PG) - Imphal (MA) II	POWERGRID/ MSPCL	1/21/2010 7.40	Imphal (PG) Imphal	Earth Fault Not Furnished	Not Furnished Not Furnished	No No	No No	64				
	FIR by the constituent	No	-	· · · · ·	-	-	•		-				
55	Brief Description of the Incident	Kohima line kep	ot open for system	n requirement).	At 07:46 Hrs on	of NER Grid thro 21.01.2016,132 h apsed due to no s	V Imphal-Im	phal I & II lir	nes trippe				
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 11	70 MW , पूर्ववृत्त	ता लोड/ Antecede	nt Load : 179	90 MW)					
	Restoration Details	Power extended	to Capital area &	z Karong area o	of Manipur at 07:	51 Hrs on 21.01.1	6 through 132	2 kV Imphal ((PG) - In				
	2	Eault was in Ma	ninur evetem and	cleared at Imp	hal(DC) Tripping	g of incoming fee	dore occurred	due to more al					
	Root Cause	Fault was III Ma	input system and	cicaled at mp	nai(FO). Tripping	g of medining fee	dels occurred	due to non ci	earance				

				ria Disturba	ances in North	i-Eastern Reg			
क्रम सं एया/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभ (मेगाव लोड उत्पाद हानि) (Lo Loa Gene in I
	132 kV Imphal (PG) -	POWERGRID		Imphal (PG)	Earth Fault	Not Furnished	No	No	T.
	Imphal (MA) I 132 kV Imphal (PG) -	POWERGRID/	1/21/2016 15:11	Imphal Imphal (PG)	Earth Fault Earth Fault	Not Furnished Not Furnished	No No	No No	Loss o
	Inphal (MA) II	MSPCL		Imphal (PG) Imphal	Earth Fault Earth Fault	Not Furnished	No	No	1 '
	FIR by the constituent	No		Implia	Darur i aut	rot i amistica	110	110	1
56	Brief Description of the Incident Antecedent Conditions of	Kohima line kep area were separa	ot open for system ted from rest of 1	n requirement). NER Grid and s	At 15:11 Hrs on subsequently coll	of NER Grid thro 21.01.2016,132 k apsed due to no s	V Imphal-Im ource in this a	phal I & II lir irea.(Load los	nes trip
	NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 10	82 MW , पूर्ववृत्त	ता लोड/ Antecede	nt Load : 152	22 MW)	
	Restoration Details					29 Hrs on 21.01.1			
	Root Cause					g of incoming fee			
	Remedial Measures	Relay coordinati done by MSPCL		e by Manipur ir	n consultation wit	th PG.Directional	feature of eat	h fault protec	ction at
	132 kV Imphal (PG) -	POWERGRID		Imphal (PG)	Earth Fault	Not Furnished	No	No	
	Imphal (MA) I		1/24/2016 19:05	Imphal	Not Furnished	Not Furnished	No	No	Loss o
	132 kV Imphal (PG) -	POWERGRID/	1/24/2010 19.03	Imphal (PG)	Earth Fault	Not Furnished	No	No	
	Imphal (MA) II	MSPCL		Imphal	Not Furnished	Not Furnished	No	No	
	FIR by the constituent	No							
57	Brief Description of the Incident	Kohima line kep	ot open for system	n requirement).	At 19:05 Hrs on	of NER Grid thro 24.01.2016,132 k apsed due to no s	V Imphal-Im	phal I & II lir	nes trip
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 15	98 MW , पूर्ववृत्त	ता लोड/ Antecede	nt Load : 204	46 MW)	
	Restoration Details		1		<u> </u>	30 Hrs on 24.01.1		<u> </u>	
	Root Cause			-		g of incoming fee			
	Remedial Measures	Relay coordinati	on has to be don	· ·	7	th PG.Vegetation			SPCL.
	132 kV Imphal (PG) -	POWERGRID		Imphal (PG)	Earth Fault	Not applicable	No	No	
	Imphal (MA) I 132 kV Imphal (PG) -	POWERGRID/	2/9/2016 4:10	Imphal	No tripping Earth Fault	Not applicable	No No	No No	Loss
	I 32 KV Imphal (PG) - Imphal (MA) II	MSPCL		Imphal (PG) Imphal	Earth Fault No tripping	Not applicable Not applicable	NO NO	No No	1
	FIR by the constituent	No		mpna	ito uipping		110	110	1
58	Brief Description of the Incident	Capital area & K Kohima line kep	U	n requirement).	At 04:10 Hrs on	of NER Grid thro 09.02.2016 ,132	kV Imphal-Ir	nphal I & II l	ines tr
		area were separa				upsed due to no s	ource in uns a	ilea.(Loau ios	5 III IV.

				Frid Disturb	ances in North	n-Eastern Reg			-
क्रम सं एया/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभ (मेगा लोड उत्पाद हानि) (Lo Cone in]
	132 kV Imphal (PG) -	POWERGRID		Imphal (PG)	Earth Fault	Not applicable	No	No	
	Imphal (MA) I 132 kV Imphal (PG) -	POWERGRID/	3/7/2016 15:23	Imphal Imphal (PG)	Not Furnished Earth Fault	Not applicable Not applicable	No No	No No	Loss o
	Imphal (MA) II	MSPCL		Imphal (PG)	Not Furnished	Not applicable	No	No	- ·
	FIR by the constituent	No		Impilai	Not I utilisticu		110	110	
59	Brief Description of the Incident Antecedent Conditions of	Kohima line kep area were separa	ot open for system ated from rest of 1	n requirement). NER Grid and s	At 15:23 Hrs on subsequently coll	of NER Grid thro 07.03.16,132 kV apsed due to no s	Imphal-Imph ource in this a	al I & II lines area.	
	NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 13	41 MW , पूर्ववृत्त	ता लोड/ Antecede	nt Load : 12	50 MW)	
	Restoration Details	Power extended	to Capital area &	k Karong area o	of Manipur at 15:4	45 Hrs on 07.03.1	6 through 132	2 kV Imphal	(PG) - 1
	Root Cause	Due to vegetation	on problem in the	downstream of	Imphal(Manipu	r), 132 kV Imphal	(PG) - Impha	al (MA) I&II	lines tri
	Remedial Measures	Relay coordinati	ion has to be don	e by Manipur ii	n consultation wit	th PG. Vegetatior	clearance to	be done by M	ISPCL.
	132 kV Imphal (PG) -	POWERGRID		Imphal (PG)	Earth Fault	Not applicable	No	No	
	Imphal (MA) I		3/14/2016 11:58	Imphal	No tripping	Not applicable	No	No	Loss o
	132 kV Imphal (PG) -	POWERGRID/ MSPCL		Imphal (PG)	Earth Fault	Not applicable	No No	No	-
	Imphal (MA) II FIR by the constituent	No		Imphal	No tripping	Not applicable	NO	No	
60	Brief Description of the Incident	Kohima line kep	ot open for system	n requirement).	At 11:58 Hrs on	of NER Grid thro 14.03.16 ,132 kV apsed due to no s	' Imphal-Imph	nal I & II line	
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 11	16 MW , पूर्ववृत्त	ता लोड/ Antecede	nt Load : 17	61 MW)	
	Restoration Details	Power extended	to Capital area &	k Karong area c	f Manipur at 12:	09 Hrs on 14.03.1	6 through 132	2 kV Imphal	(PG) - I
	Root Cause					r), 132 kV Imphal			
	Remedial Measures	Relay coordinati	ion has to be don	· · ·		th PG. Vegetation	clearance to	be done by M	ISPCL.
	132 kV Imphal (PG) -	POWERGRID		Imphal (PG)	Earth Fault	Not applicable	No	No	
	Imphal (MA) I		3/19/2016 15:45	Imphal	Earth Fault	Not applicable	No	No	Loss
	132 kV Imphal (PG) -	POWERGRID/		Imphal (PG)	Earth Fault	Not applicable	No	No	4
	Imphal (MA) II	MSPCL		Imphal	Earth Fault	Not applicable	No	No	
	FIR by the constituent	No	7 03 7	•			1 100 1 1 1		1103
61	Brief Description of the Incident	Kohima line kep	ot open for system	n requirement).	At 15:45 Hrs on	of NER Grid thro 19.03.16 ,132 kV	Imphal-Impl	nal I & II line	
01	menuent	area were separa	ated from rest of 1	NER Grid and s	subsequently coll	apsed due to no s	ource in this a	area.	

	1	1	List of G			· · · · · · · · · · · · · · · · · · ·			
हम सं डया/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्र (मेगा लोड उत्पा हानि) (La Gen in
	Antecedent Conditions of NER Grid		न/ Antecedent (ता लोड/ Antecede			
	Restoration Details		-	-	-	58 Hrs on 26.03.1			
	Root Cause	1				incoming feeders			
	Remedial Measures	Relay coordinat	ion has to be don			th PG.Vegetation	1	-	SPCL.
	132 kV Imphal (PG) -	POWERGRID		Imphal (PG)		Not applicable	No	No	
F	Imphal (MA) I 132 kV Imphal (PG) -	I (MA) I I I I I I I I I I I I I I I I I I I				No	No	Loss	
	1 ()			Imphal (PG)		Not applicable	No	No	
	Imphal (MA) II	MSPCL		Imphal	Not Furnished	Not applicable	No	No	
	FIR by the constituent	No							
	Brief Description of the	-	Karong area of M	•			U		
63	Brief Description of the Incident Antecedent Conditions of	Kohima line kep area were separa	ot open for system ated from rest of	n requirement). NER Grid and s	At 12:00 Hrs on subsequently coll	of NER Grid thro 26.03.16,132 kV apsed due to no so ता लोड/ Antecede	Imphal-Impha ource in this a	al I & II lines area.	
63	Incident Antecedent Conditions of NER Grid	Kohima line kep area were separa (पूर्ववृत्ता उत्पाद	ot open for system ated from rest of न/ Antecedent (n requirement). NER Grid and s Generation : 11	At 12:00 Hrs on subsequently coll 20 MW , पूर्ववृत्त	26.03.16,132 kV apsed due to no so ता लोड/ Antecede	Imphal-Impha ource in this a nt Load : 181	al I & II lines irea. 19 MW)	trippe
63	Incident Antecedent Conditions of NER Grid Restoration Details	Kohima line kep area were separa (पूर्ववृत्ता उत्पाद Power extended	ot open for system ated from rest of न/ Antecedent (to Capital area &	n requirement). NER Grid and s Generation : 11 & Karong area o	At 12:00 Hrs on subsequently coll 20 MW, पूर्ववृत्त of Manipur at 12:	26.03.16,132 kV apsed due to no so ता लोड/ Antecede 11 Hrs on 26.03.1	Imphal-Impha ource in this a nt Load : 181 6 through 132	al I & II lines trea. 19 MW) 2 kV Imphal (trippe PG) -
63	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause	Kohima line kep area were separa (पूर्ववृत्ता उत्पाद Power extended Fault was in Ma	ot open for system ated from rest of न/ Antecedent (to Capital area & nipur system and	n requirement). NER Grid and s Generation : 11 & Karong area o I cleared at Imp	At 12:00 Hrs on subsequently coll 20 MW, पूर्ववृत्त of Manipur at 12: hal(PG) tripping	26.03.16,132 kV apsed due to no so ता लोड/ Antecede 11 Hrs on 26.03.1 incoming feeders	Imphal-Impha ource in this a nt Load : 181 6 through 132 due to non clo	al I & II lines irea. 19 MW) 2 kV Imphal (earance of fau	trippo PG) - alt wit
63	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures	Kohima line kep area were separa (पूर्ववृत्ता उत्पाद Power extended Fault was in Ma Relay coordinat	ot open for system ated from rest of न/ Antecedent (to Capital area & nipur system and	n requirement). NER Grid and s Generation : 11 & Karong area o I cleared at Imp e by Manipur in	At 12:00 Hrs on subsequently coll 20 MW, पूर्ववृत्व of Manipur at 12: hal(PG) tripping a consultation wit	26.03.16,132 kV apsed due to no so ता लोड/ Antecede 11 Hrs on 26.03.1 incoming feeders th PG.Vegetation	Imphal-Impha ource in this a nt Load : 181 6 through 132 due to non clo	al I & II lines irea. 19 MW) 2 kV Imphal (earance of fau	trippo PG) - alt wit
63	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause	Kohima line kep area were separa (पूर्ववृत्ता उत्पाद Power extended Fault was in Ma	ot open for system ated from rest of न/ Antecedent (to Capital area & nipur system and ion has to be don	n requirement). NER Grid and s Generation : 11 & Karong area o I cleared at Imp	At 12:00 Hrs on subsequently coll 20 MW, पूर्ववृत्त of Manipur at 12: hal(PG) tripping	26.03.16,132 kV apsed due to no so ता लोड/ Antecede 11 Hrs on 26.03.1 incoming feeders	Imphal-Impha ource in this a nt Load : 181 6 through 132 due to non cle clearance to b	al I & II lines urea. 19 MW) 2 kV Imphal (earance of fau be done by M	trippo PG) - alt wit
63	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I	Kohima line kep area were separa (पूर्ववृत्ता उत्पाद Power extended Fault was in Ma Relay coordinat	ot open for system ated from rest of न/ Antecedent (to Capital area & nipur system and	n requirement). NER Grid and s Generation : 11 & Karong area c I cleared at Imp e by Manipur in Imphal (PG) Imphal	At 12:00 Hrs on subsequently coll 20 MW , पूर्ववृत्त of Manipur at 12: hal(PG) tripping n consultation wit Earth Fault	26.03.16,132 kV apsed due to no so ता लोड/ Antecede 11 Hrs on 26.03.1 incoming feeders th PG.Vegetation Not applicable Not applicable	Imphal-Impha ource in this a nt Load : 181 6 through 132 due to non cle clearance to b No	al I & II lines irea. 19 MW) 2 kV Imphal (earance of fau be done by Ma No	trippo PG) - alt wit SPCL
63	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) -	Kohima line kep area were separa (पूर्ववृत्ता उत्पाद Power extended Fault was in Ma Relay coordinat POWERGRID POWERGRID/	ot open for system ated from rest of न/ Antecedent (to Capital area & nipur system and ion has to be don	n requirement). NER Grid and s Generation : 11 & Karong area c I cleared at Imp e by Manipur in Imphal (PG)	At 12:00 Hrs on subsequently coll 20 MW , पूर्ववृत्त of Manipur at 12: hal(PG) tripping n consultation wit Earth Fault Not Furnished	26.03.16,132 kV apsed due to no so ता लोड/ Antecede 11 Hrs on 26.03.1 incoming feeders th PG.Vegetation Not applicable	Imphal-Impha ource in this a nt Load : 181 6 through 132 due to non cle clearance to b No No	al I & II lines rea. 19 MW) 2 kV Imphal (earance of fau be done by Ma No No	trippo PG) - alt wit SPCL
63	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II	Kohima line kep area were separa (पूर्ववृत्ता उत्पाद Power extended Fault was in Ma Relay coordinati POWERGRID	ot open for system ated from rest of न/ Antecedent (to Capital area & nipur system and ion has to be don	n requirement). NER Grid and s Generation : 11 & Karong area c I cleared at Imp e by Manipur in Imphal (PG) Imphal Imphal (PG)	At 12:00 Hrs on subsequently coll 20 MW, पूर्ववृत्त of Manipur at 12: hal(PG) tripping ocnsultation with Earth Fault Not Furnished Earth Fault	26.03.16,132 kV apsed due to no so ता लोड/ Antecede 11 Hrs on 26.03.1 incoming feeders th PG.Vegetation Not applicable Not applicable Not applicable	Imphal-Impha ource in this a nt Load : 181 6 through 132 due to non cle clearance to b No No No	al I & II lines rea. 19 MW) 2 kV Imphal (earance of fat be done by Ma No No No	tripp PG) - alt wit SPCL
63	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II FIR by the constituent Brief Description of the Incident	Kohima line kep area were separa (पूर्ववृ त्ता उत्पाद Power extended Fault was in Ma Relay coordinati POWERGRID POWERGRID/ MSPCL No Capital area of kept open for sy	Antecedent C ated from rest of ated from rest of ated from rest of to Capital area & nipur system and ion has to be don 4/4/2016 13:59 Manipur was cor stem requiremen	n requirement). NER Grid and s Generation : 11 & Karong area of I cleared at Imp e by Manipur in Imphal (PG) Imphal Imphal Imphal Imphal Structure with res t). At 13:59 Hrs	At 12:00 Hrs on subsequently coll 20 MW, पूर्ववृत्त of Manipur at 12: hal(PG) tripping a consultation wite Earth Fault Not Furnished Earth Fault Not Furnished earth Fault	26.03.16,132 kV apsed due to no so an one of the solution of the solution applicable applicable Not applicable Not applicable Not applicable Not applicable Not applicable	Imphal-Impha ource in this a nt Load : 181 6 through 132 due to non cle clearance to b No No No No No Phal-Imphal I	al I & II lines rrea. 19 MW) 2 kV Imphal (earance of fau be done by M. No No No No Ko Ko No No No	PG) - ilt wit SPCL Loss
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid	Kohima line kep area were separa (पूर्ववृत्ता उत्पाद Power extended Fault was in Ma Relay coordinat: POWERGRID POWERGRID POWERGRID/ MSPCL No Capital area of kept open for sy NER Grid and s (पूर्ववृत्ता उत्पाद	Antecedent C Manipur was cor stem requiremen ubsequently colla	n requirement). NER Grid and s Generation : 11 & Karong area c I cleared at Imp e by Manipur in Imphal (PG) Imphal Imphal Imphal Imphal Marcha (PG) Imphal Imphal Imphal Senected with res t). At 13:59 Hrs apsed due to no Generation : 12	At 12:00 Hrs on subsequently coll 20 MW, पूर्ववृत्त of Manipur at 12: hal(PG) tripping a consultation wite Earth Fault Not Furnished Earth Fault Not Furnished Earth Fault Not Furnished to of NER Grid th s on 04.04.16,132 source in this are cource in this are	26.03.16,132 kV apsed due to no so ता लोड/ Antecede 11 Hrs on 26.03.1 incoming feeders th PG.Vegetation Not applicable Not applicable Not applicable Not applicable rough 132 kV Im kV Imphal-Imphea.	Imphal-Impha ource in this a nt Load : 181 6 through 132 due to non cle clearance to b No No No No No phal-Imphal I aal I & II lines nt Load : 196	al I & II lines rea. 19 MW) 2 kV Imphal (earance of fat be done by M. No No No No Ko No No So Mo No No No No No No No No No N	PG) - Ilt win SPCL Loss 32 kV to tri
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause	Kohima line kep area were separa (पूर्ववृत्ता उत्पाद Power extended Fault was in Ma Relay coordinat POWERGRID POWERGRID POWERGRID/ MSPCL No Capital area of kept open for sy NER Grid and s (पूर्ववृत्ता उत्पाद Fault was in Ma	Antecedent C nipur system and ion has to be don 4/4/2016 13:59 Manipur was cor stem requiremen ubsequently colla Antecedent C nipur system and	n requirement). NER Grid and s Generation : 11 & Karong area c I cleared at Imp e by Manipur in Imphal (PG) Imphal Imphal (PG) Imphal enected with res t). At 13:59 Hrs apsed due to no Generation : 12 I cleared at Imp	At 12:00 Hrs on subsequently coll 20 MW , पूर्ववृत्त of Manipur at 12: hal(PG) tripping ocnsultation wite Earth Fault Not Furnished Earth Fault Not Furnished Earth Fault Not Furnished to f NER Grid th s on 04.04.16,132 source in this are consultation wite and the fault	26.03.16,132 kV apsed due to no so ता लोड/ Antecede 11 Hrs on 26.03.1 incoming feeders th PG.Vegetation Not applicable Not applicable Not applicable Not applicable rough 132 kV Impla-Implica. ता लोड/ Antecede incoming feeders	Imphal-Impha ource in this a nt Load : 181 6 through 132 due to non cle clearance to b No No No No Phal-Imphal I aal I & II lines nt Load : 196 due to non cle	al I & II lines rea. 19 MW) 2 kV Imphal (earance of fau be done by M. No No No No No Ko No No So So So So So So So So So S	PG) - Ilt wir SPCL Loss 32 kV to tri
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures	Kohima line kep area were separa (पूर्ववृत्ता उत्पाद Power extended Fault was in Ma Relay coordinat POWERGRID POWERGRID POWERGRID/ MSPCL No Capital area of kept open for sy NER Grid and s (पूर्ववृत्ता उत्पाद Fault was in Ma	Antecedent C nipur system and ion has to be don 4/4/2016 13:59 Manipur was cor stem requiremen ubsequently colla Antecedent C nipur system and	n requirement). NER Grid and s Generation : 11 & Karong area c I cleared at Imp e by Manipur in Imphal (PG) Imphal Imphal Imphal (PG) Imphal e by Manipur in Generation : 12 I cleared at Imp e by Manipur in	At 12:00 Hrs on subsequently coll 20 MW, पूर्ववृत्त of Manipur at 12: hal(PG) tripping of consultation wite Earth Fault Not Furnished Earth Fault Not Furnished Earth Fault Not Furnished to f NER Grid th s on 04.04.16,132 source in this are consultation wite consultation wite consultation wite	26.03.16,132 kV apsed due to no so ता लोड/ Antecede 11 Hrs on 26.03.1 incoming feeders th PG.Vegetation Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Rough 132 kV Imple kV Imphal-Imple a.	Imphal-Impha ource in this a nt Load : 181 6 through 132 due to non cle clearance to b No No No No Phal-Imphal I aal I & II lines nt Load : 196 due to non cle l feature of ea	al I & II lines I & II lines I & MW) 2 kV Imphal (earance of fau be done by M No No No No No KI lines (13 tripped. Due 51MW) earance of fau th fault prote	PG) - Ilt wi SPCL Loss 32 kV to tri
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Imphal (PG) -	Kohima line kep area were separa (ų áą cता उत्पाद Power extended Fault was in Ma Relay coordinat POWERGRID POWERGRID POWERGRID/ MSPCL No Capital area of kept open for sy NER Grid and s (ų áą cता उत्पाद Fault was in Ma Relay coordinat	Antecedent C nipur system and ion has to be don 4/4/2016 13:59 Manipur was cor stem requiremen ubsequently colla Antecedent C nipur system and	n requirement). NER Grid and s Generation : 11 & Karong area of cleared at Imp e by Manipur in Imphal (PG) Imphal Imphal (PG) Imphal enected with ress t). At 13:59 Hrs apsed due to no Generation : 12 cleared at Imp e by Manipur in Imphal (PG)	At 12:00 Hrs on subsequently coll 20 MW , पूर्ववृत्त of Manipur at 12: hal(PG) tripping of consultation wite Earth Fault Not Furnished Earth Fault Not Furnished Earth Fault Not Furnished con 04.04.16,132 source in this are con 04.04.16,132 source in this are con 04.04.16,132 source in this are con 04.04.16,132	26.03.16,132 kV apsed due to no so an old so applied to no so an old so applied to applied to Not applied to the Not applied to Not applied to Not applied to Not applied to Not applied to Not applied to	Imphal-Impha ource in this a nt Load : 181 6 through 132 due to non cle clearance to b No No No No Phal-Imphal I aal I & II lines nt Load : 196 due to non cle l feature of ea No	al I & II lines I & II lines I & MW) 2 kV Imphal (earance of fau be done by M No No No No & II lines (13 tripped. Due 51MW) earance of fau th fault protect	PG) - Ilt wi SPCL Loss 32 kV to tri
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I	Kohima line kep area were separa (पूर्ववृत्ता उत्पाद Power extended Fault was in Ma Relay coordinat POWERGRID POWERGRID/ MSPCL No Capital area of kept open for sy NER Grid and s (पूर्ववृत्ता उत्पाद Fault was in Ma Relay coordinat POWERGRID	Antecedent C ar/ Antecedent C to Capital area & inipur system and ion has to be don 4/4/2016 13:59 Manipur was cor stem requiremen ubsequently colla ar/ Antecedent C nipur system and ion has to be don	n requirement). NER Grid and s Generation : 11 & Karong area c I cleared at Imp e by Manipur in Imphal (PG) Imphal Imphal (PG) Imphal enected with res t). At 13:59 Hrs apsed due to no Generation : 12 I cleared at Imp e by Manipur in Imphal (PG) Imphal (PG) Imphal (PG) Imphal (PG)	At 12:00 Hrs on subsequently coll 20 MW , पूर्ववृत्त of Manipur at 12: hal(PG) tripping ocnsultation wite Earth Fault Not Furnished Earth Fault Not Furnished to of NER Grid th son 04.04.16,132 source in this are consultation wite Earth Fault Not Furnished	26.03.16,132 kV apsed due to no so an offs/ Antecede 11 Hrs on 26.03.1 incoming feeders th PG.Vegetation Not applicable Not applicable Not applicable Not applicable rough 132 kV Im kV Imphal-Imphea. an offs/ Antecede incoming feeders th PG. Directiona Not applicable Not applicable	Imphal-Impha ource in this a nt Load : 181 6 through 132 due to non cle clearance to b No No No No Phal-Imphal I aal I & II lines nt Load : 196 due to non cle l feature of ea No No	al I & II lines rea. 19 MW) 2 kV Imphal (earance of fau be done by M. No No No No KI lines (13 tripped. Due 51MW) earance of fau th fault protection No No No No No No No No No No	PG)
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I	Kohima line kep area were separa (पूर्ववृत्ता उत्पाद Power extended Fault was in Ma Relay coordinat: POWERGRID POWERGRID/ MSPCL No Capital area of kept open for sy NER Grid and s (पूर्ववृत्ता उत्पाद Fault was in Ma Relay coordinat: POWERGRID POWERGRID	Antecedent C nipur system and ion has to be don 4/4/2016 13:59 Manipur was cor stem requiremen ubsequently colla Antecedent C nipur system and	n requirement). NER Grid and s Generation : 11 & Karong area of I cleared at Imp e by Manipur in Imphal (PG) Imphal Imphal (PG) Imphal anected with res t). At 13:59 Hrs apsed due to no Generation : 12 I cleared at Imp e by Manipur in Imphal (PG) Imphal Imphal (PG)	At 12:00 Hrs on subsequently coll 20 MW , पूर्ववृत्त of Manipur at 12: hal(PG) tripping ocnsultation wite Earth Fault Not Furnished Earth Fault Not Furnished to of NER Grid th son 04.04.16,132 source in this are consultation wite Earth Fault Not Furnished Earth Fault Not Furnished Earth Fault Not Furnished Earth Fault	26.03.16,132 kV apsed due to no so an offs/ Antecede 11 Hrs on 26.03.1 incoming feeders th PG.Vegetation Not applicable Not applicable Not applicable Not applicable rough 132 kV Im kV Imphal-Imphea. an offs/ Antecede incoming feeders th PG. Directiona Not applicable Not applicable Not applicable Not applicable	Imphal-Impha ource in this a nt Load : 181 6 through 132 due to non cle clearance to b No No No No Phal-Imphal I nal I & II lines nt Load : 196 due to non cle l feature of ea No No	al I & II lines I & II lines I & MW) 2 kV Imphal (earance of fau be done by M No No No No KI lines (13 tripped. Due 51MW) earance of fau th fault protect No No No No No No No No No No	PG)
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I	Kohima line kep area were separa (पूर्ववृत्ता उत्पाद Power extended Fault was in Ma Relay coordinat POWERGRID POWERGRID/ MSPCL No Capital area of kept open for sy NER Grid and s (पूर्ववृत्ता उत्पाद Fault was in Ma Relay coordinat POWERGRID	Antecedent C ar/ Antecedent C to Capital area & inipur system and ion has to be don 4/4/2016 13:59 Manipur was cor stem requiremen ubsequently colla ar/ Antecedent C nipur system and ion has to be don	n requirement). NER Grid and s Generation : 11 & Karong area c I cleared at Imp e by Manipur in Imphal (PG) Imphal Imphal (PG) Imphal enected with res t). At 13:59 Hrs apsed due to no Generation : 12 I cleared at Imp e by Manipur in Imphal (PG) Imphal (PG) Imphal (PG) Imphal (PG)	At 12:00 Hrs on subsequently coll 20 MW, पूर्ववृत्त of Manipur at 12: hal(PG) tripping ocnsultation wite Earth Fault Not Furnished Earth Fault Not Furnished to of NER Grid th son 04.04.16,132 source in this are consultation wite Earth Fault Not Furnished	26.03.16,132 kV apsed due to no so an offs/ Antecede 11 Hrs on 26.03.1 incoming feeders th PG.Vegetation Not applicable Not applicable Not applicable Not applicable rough 132 kV Im kV Imphal-Imphea. an offs/ Antecede incoming feeders th PG. Directiona Not applicable Not applicable	Imphal-Impha ource in this a nt Load : 181 6 through 132 due to non cle clearance to b No No No No Phal-Imphal I aal I & II lines nt Load : 196 due to non cle l feature of ea No No	al I & II lines rea. 19 MW) 2 kV Imphal (earance of fau be done by M. No No No No KI lines (13 tripped. Due 51MW) earance of fau th fault protection No No No No No No No No No No	PG) ult w SPCI Los 32 kV to tr ult w ction

				rid Disturb	ances in North	n-Eastern Reg		U	
क्रम सं छया/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभ (मेगाव लोड उत्पाद हानि) / (Loa Gene in M
	FIR by the constituent	No							
67	Brief Description of the Incident	Kohima line kep	ot open for system	n requirement).	nnected with rest At 10:59 Hrs on subsequently coll	09.04.16, 132 kV	/ Imphal-Impl	nal I & II line	
	Antecedent Conditions of NER Grid	., .			865 MW , पूर्ववृत्त				-
	Root Cause			-	hal(PG). Tripping				
	Remedial Measures	Relay coordinat	ion has to be don		n consultation with				ISPCL.
	132 kV Imphal (PG) -	POWERGRID		Imphal (PG)	Earth Fault	Not applicable	No	No	-
	Imphal (MA) I 132 kV Imphal (PG) -	POWERGRID/	4/10/2016 11:30	Imphal Imphal (PG)	Earth Fault	Not applicable Not applicable	No No	No No	Loss
	IS2 KV Imphal (PG) - Imphal (MA) II	MSPCL		Imphal (PG)	Not Furnished		No	No	-
	FIR by the constituent	No		Implia	riot i unimilieu	rior applicable	110	110	
68	Brief Description of the Incident	Kohima line kep	ot open for system	n requirement).	nnected with rest At 11:30 Hrs on subsequently coll	10.04.16, 132 kV	⁷ Imphal-Impl	nal I & II line	
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent (Generation : 15	533 MW , पूर्ववृत्त	ता लोड/ Antecede	nt Load : 21	44 MW)	
	Restoration Details	Power extended	to						
	Root Cause		1 2	1	hal(PG). Tripping	5 6			
	Remedial Measures	Relay coordinat	ion has to be don	• •	n consultation wit		1	1	ISPCL.
	132 kV Imphal (PG) -	POWERGRID		Imphal (PG)	Earth Fault	Not applicable	No	No	4
	Imphal (MA) I	POWERGRID/	4/10/2016 12:04	Imphal	Not Furnished	Not applicable	No	No	Loss
	132 kV Imphal (PG) - Imphal (MA) II	MSPCL		Imphal (PG) Imphal	Earth Fault Not Furnished	Not applicable Not applicable	No No	No No	-
	FIR by the constituent	No		шірпаі	not runnished		NU	no	1
69	Brief Description of the Incident	Capital area & F Kohima line kep	ot open for system	n requirement).	nnected with rest At 12:04 Hrs on subsequently coll	10.04.16, 132 kV	⁷ Imphal-Impl	nal I & II line	
	Antecedent Conditions of NER Grid				530 MW , पूर्ववृत्त				
	Root Cause				hal(PG). Tripping				
	Remedial Measures	Relay coordinat	ion has to be don		n consultation wit	-			-
	132 kV Imphal (PG) - Imphal (MA) I	POWERGRID	4/10/2016 12:31	Imphal (PG) Imphal	Earth Fault Not Furnished	Not applicable Not applicable	No No	No No	Loss
	1 ()	No	1	impilai	1.5t I unifolied	r tot upplicable	110	110	-

क्रम सं छ्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	List of G दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator		ances in North सीआर ऑपरेटर द्वारा प्रदान की रिले संकेत / Relay indications provided by CR operator	n-Eastern Reg ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	ional Grid 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	nuary 20 प्रभाव (मंगावाट लोड औ उत्पादन हानि) / E (Loss Conerat in MV
	Imphal (MA) I	TOWEROKID	=	Imphal	No tripping	Not applicable	No	No	Loss of L
		POWERGRID/	5/15/2016 21:28	Imphal (PG)	Earth Fault	Not applicable	No	No	46
	Imphal (MA) II	MSPCL		Imphal	No tripping	Not applicable	No	No	1
	FIR by the constituent	No					-		

			List of G	niu Distui De		n-Eastern Regi			
क्रम सं डया/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्र¥ (मेगाव लोड उत्पाद हानि) / (Lo Loa Gene in N
72	Brief Description of the Incident	Kohima line kep	ot open for system	n requirement).	At 21:28 Hrs on	of NER Grid thro 15.05.16, 132 kV apsed due to no se	Imphal-Imph	al I & II lines	
	Antecedent Conditions of NER Grid					ता लोड/ Antecede			
	Root Cause		-	-		as not cleared at In	-	-	oblem i
	Remedial Measures	The CB for 132	kV Karong Line	· · ·		ed attended by MS	0		
	132 kV Imphal (PG) - Imphal (MA) I	POWERGRID	5/31/2016 10:55	Imphal (PG) Imphal	Earth Fault Not Furnished	Not applicable Not applicable	Yes No	No No	Loss c
1	132 kV Imphal (PG) -	POWERGRID/	0,01,2010 10100	Imphal (PG)	Earth Fault	Not applicable	Yes	No	
	Imphal (MA) II	MSPCL		Imphal	Not Furnished	Not applicable	No	No	
	Imphal (MA) II FIR by the constituent	No		.	•		8	8	
73	FIR by the constituent Brief Description of the Incident Antecedent Conditions of	No Capital area & H Kohima line kep area were separa	ot open for system ated from rest of 1	anipur were con n requirement). NER Grid and s	nnected with rest At 10:55 Hrs on subsequently coll:	of NER Grid thro 31.05.16 ,132 kV apsed due to no so	ough 132 kV I Imphal-Imph	mphal-Impha al I & II lines	
73	FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid	No Capital area & H Kohima line kep area were separa (Antecedent Ge	ot open for system ated from rest of 1 eneration : 1634	anipur were con n requirement). NER Grid and s MW , Anteced	nnected with rest At 10:55 Hrs on subsequently coll: lent Load : 1360	of NER Grid thro 31.05.16 ,132 kV apsed due to no so MW)	ugh 132 kV I Imphal-Imph ource in this a	mphal-Impha aal I & II lines rea.	s trippe
73	FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause	No Capital area & H Kohima line kep area were separa (Antecedent Ge Fault was in 132	ot open for system ated from rest of 2 eneration : 1634 2 kV Imphal(State	anipur were con n requirement). NER Grid and s MW , Anteced e) - Karong line	nnected with rest At 10:55 Hrs on subsequently colle lent Load : 1360 and the same wa	of NER Grid thro 31.05.16 ,132 kV apsed due to no s MW) as not cleared at In	ugh 132 kV I Imphal-Imph ource in this a mphal (State)	mphal-Impha aal I & II lines rea. because of pr	s trippe
73	FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures	No Capital area & H Kohima line kep area were separa (Antecedent Ge Fault was in 132	ot open for system ated from rest of 2 eneration : 1634 2 kV Imphal(State	anipur were con n requirement). NER Grid and s MW , Anteced e) - Karong line at Imphal (Stat	nnected with rest At 10:55 Hrs on subsequently colla lent Load : 1360 e and the same wa e) is to be attende	of NER Grid thro 31.05.16 ,132 kV apsed due to no so MW) as not cleared at In ed attended by MS	ough 132 kV I Imphal-Imph ource in this a mphal (State) SPCL at the ea	mphal-Impha aal I & II lines rea. because of pr arliest.	s trippe
73	FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I	No Capital area & H Kohima line kep area were separa (Antecedent Ge Fault was in 132 The CB for 132 POWERGRID	ot open for system ated from rest of 2 eneration : 1634 2 kV Imphal(State	anipur were con n requirement). NER Grid and s MW , Anteced e) - Karong line at Imphal (Stat Imphal (PG) Imphal	nnected with rest At 10:55 Hrs on subsequently colla ent Load : 1360 e and the same wa e) is to be attende Earth Fault Not Furnished	of NER Grid thro 31.05.16,132 kV apsed due to no so MW) as not cleared at In attended by MS Not applicable Not applicable	ough 132 kV I ' Imphal-Imph ource in this a mphal (State) SPCL at the ea No No	mphal-Impha aal I & II lines rea. because of pr arliest. No No	oblem
73	FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II	No Capital area & H Kohima line kep area were separa (Antecedent Go Fault was in 132 The CB for 132 POWERGRID POWERGRID/ MSPCL	ot open for system ated from rest of 2 eneration : 1634 2 kV Imphal(State kV Karong Line	anipur were con n requirement). NER Grid and s MW , Anteced e) - Karong line at Imphal (Stat Imphal (PG)	nnected with rest At 10:55 Hrs on subsequently colla lent Load : 1360 e and the same wa e) is to be attende Earth Fault	of NER Grid thro 31.05.16 ,132 kV apsed due to no so MW) as not cleared at In ed attended by MS Not applicable	ough 132 kV I I mphal-Imph ource in this a mphal (State) SPCL at the ea No	mphal-Impha aal I & II lines rea. because of pr arliest. No	s trippe oblem
73	FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) -	No Capital area & F Kohima line kep area were separa (Antecedent Ge Fault was in 132 The CB for 132 POWERGRID POWERGRID/ MSPCL No	ot open for system ated from rest of 2 eneration : 1634 2 kV Imphal(State kV Karong Line 6/28/2016 10:44	anipur were con n requirement). NER Grid and s MW , Anteced e) - Karong line at Imphal (Stat Imphal (PG) Imphal Imphal Imphal	nnected with rest At 10:55 Hrs on subsequently coll: lent Load : 1360 and the same wa e) is to be attende Earth Fault Not Furnished Earth Fault Not Furnished	of NER Grid thro 31.05.16,132 kV apsed due to no so MW) as not cleared at In a attended by MS Not applicable Not applicable Not applicable Not applicable	ough 132 kV I I mphal-Imph ource in this a mphal (State) SPCL at the ea No No No No	mphal-Impha aal I & II lines rea. because of pr arliest. No No No No	oblem
73	FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II FIR by the constituent Brief Description of the Incident	No Capital area & F Kohima line kej area were separa (Antecedent Ge Fault was in 132 The CB for 132 POWERGRID POWERGRID/ MSPCL No Capital area & F Kohima line kej	ot open for system ated from rest of 2 eneration : 1634 2 kV Imphal(State kV Karong Line 6/28/2016 10:44 Karong area of M ot open for system	anipur were con n requirement). NER Grid and s MW , Anteced e) - Karong line at Imphal (State Imphal (PG) Imphal Imphal Imphal anipur were con n requirement).	nnected with rest At 10:55 Hrs on subsequently coll: ent Load : 1360 and the same wa e) is to be attende Earth Fault Not Furnished Earth Fault Not Furnished Earth Fault Not Furnished	of NER Grid thro 31.05.16,132 kV apsed due to no so MW) as not cleared at In attended by MS Not applicable Not applicable Not applicable	mphal (State) SPCL at the ea No No No Sugh 132 kV I	mphal-Impha aal I & II lines rea. because of pr arliest. No No No No Mo mphal-Impha aal I & II lines	oblem
	FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid	No Capital area & F Kohima line kep area were separa (Antecedent Ge Fault was in 132 The CB for 132 POWERGRID POWERGRID/ MSPCL No Capital area & F Kohima line kep area were separa	ot open for system ated from rest of 2 eneration : 1634 2 kV Imphal(State kV Karong Line 6/28/2016 10:44 Karong area of M ot open for system	anipur were con n requirement). NER Grid and s MW , Anteced e) - Karong line at Imphal (Stat Imphal (PG) Imphal Imphal Imphal anipur were con n requirement). NER Grid and s	nnected with rest At 10:55 Hrs on subsequently coll: ent Load : 1360 and the same wa e) is to be attende Earth Fault Not Furnished Earth Fault Not Furnished Earth Fault Not Furnished	of NER Grid thro 31.05.16,132 kV apsed due to no so MW) as not cleared at In a attended by MS Not applicable Not applicable Not applicable Not applicable of NER Grid thro 28.06.16, 132 kV	mphal (State) SPCL at the ea No No No Sugh 132 kV I	mphal-Impha aal I & II lines rea. because of pr arliest. No No No No Mo mphal-Impha aal I & II lines	coblem Loss
	FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause	No Capital area & F Kohima line kep area were separa (Antecedent Ge Fault was in 132 The CB for 132 POWERGRID POWERGRID/ MSPCL No Capital area & F Kohima line kep area were separa	ot open for system ated from rest of 2 eneration : 1634 2 kV Imphal(State kV Karong Line 6/28/2016 10:44 Karong area of M ot open for system ated from rest of 2	anipur were con n requirement). NER Grid and s MW , Anteced e) - Karong line at Imphal (Stat Imphal (PG) Imphal Imphal Imphal anipur were con n requirement). NER Grid and s	nnected with rest At 10:55 Hrs on subsequently coll: ent Load : 1360 and the same wa e) is to be attende Earth Fault Not Furnished Earth Fault Not Furnished Earth Fault Not Furnished	of NER Grid thro 31.05.16,132 kV apsed due to no so MW) as not cleared at In a attended by MS Not applicable Not applicable Not applicable Not applicable of NER Grid thro 28.06.16, 132 kV	mphal (State) SPCL at the ea No No No Sugh 132 kV I	mphal-Impha aal I & II lines rea. because of pr arliest. No No No No Mo mphal-Impha aal I & II lines	roblem Loss
	FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures	No Capital area & F Kohima line kep area were separa (Antecedent Ge Fault was in 132 The CB for 132 POWERGRID POWERGRID/ MSPCL No Capital area & F Kohima line kep area were separa	ot open for system ated from rest of 2 eneration : 1634 2 kV Imphal(State kV Karong Line 6/28/2016 10:44 Karong area of M ot open for system ated from rest of 2	anipur were con n requirement). NER Grid and s MW , Anteced e) - Karong line at Imphal (Stat Imphal (PG) Imphal Imphal Imphal Mphal anipur were con n requirement). NER Grid and s	nnected with rest At 10:55 Hrs on subsequently colla e and the same wa e) is to be attende Earth Fault Not Furnished Earth Fault Not Furnished nnected with rest At 10:44 Hrs on subsequently colla	of NER Grid thro 31.05.16 ,132 kV apsed due to no so MW) as not cleared at In as not cleared at In ad attended by MS Not applicable Not applicable Not applicable of NER Grid thro 28.06.16, 132 kV apsed due to no so	pugh 132 kV I Imphal-Imph ource in this a mphal (State) SPCL at the ea No No No No No Sugh 132 kV I Imphal-Imph ource in this a	mphal-Impha aal I & II lines rea. because of pr arliest. No No No No mphal-Impha aal I & II lines rea.	roblem Loss
	FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Imphal (PG) -	No Capital area & F Kohima line kej area were separa (Antecedent Ge Fault was in 132 The CB for 132 POWERGRID POWERGRID/ MSPCL No Capital area & F Kohima line kej area were separa (Antecedent Ge	ot open for system ated from rest of 2 eneration : 1634 2 kV Imphal(State kV Karong Line 6/28/2016 10:44 Karong area of M ot open for system ated from rest of 2	anipur were con n requirement). NER Grid and s MW , Anteced e) - Karong line at Imphal (Stat Imphal (PG) Imphal Imphal Imphal (PG) Imphal anipur were con n requirement). NER Grid and s	nnected with rest At 10:55 Hrs on subsequently coll: ent Load : 1360 e and the same wa e) is to be attende Earth Fault Not Furnished Earth Fault Not Furnished annected with rest At 10:44 Hrs on subsequently coll: Load : MW)	of NER Grid thro 31.05.16,132 kV apsed due to no so MW) as not cleared at In attended by MS Not applicable Not applicable Not applicable Not applicable of NER Grid thro 28.06.16,132 kV apsed due to no so	pugh 132 kV I Imphal-Imph ource in this a mphal (State) SPCL at the ea No No No No Sugh 132 kV I Imphal-Imph ource in this a No	mphal-Impha aal I & II lines rea. because of pr arliest. No No No mphal-Impha aal I & II lines rea.	s tripp
	FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Imphal (PG) - Imphal (MA) I 132 kV Imphal (PG) - Imphal (MA) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures	No Capital area & F Kohima line kep area were separa (Antecedent Ge Fault was in 132 The CB for 132 POWERGRID POWERGRID/ MSPCL No Capital area & F Kohima line kep area were separa	ot open for system ated from rest of 2 eneration : 1634 2 kV Imphal(State kV Karong Line 6/28/2016 10:44 Karong area of M ot open for system ated from rest of 2	anipur were con n requirement). NER Grid and s MW , Anteced e) - Karong line at Imphal (Stat Imphal (PG) Imphal Imphal Imphal Mphal anipur were con n requirement). NER Grid and s	nnected with rest At 10:55 Hrs on subsequently colla e and the same wa e) is to be attende Earth Fault Not Furnished Earth Fault Not Furnished nnected with rest At 10:44 Hrs on subsequently colla	of NER Grid thro 31.05.16 ,132 kV apsed due to no so MW) as not cleared at In as not cleared at In ad attended by MS Not applicable Not applicable Not applicable of NER Grid thro 28.06.16, 132 kV apsed due to no so	pugh 132 kV I Imphal-Imph ource in this a mphal (State) SPCL at the ea No No No No No Sugh 132 kV I Imphal-Imph ource in this a	mphal-Impha aal I & II lines rea. because of pr arliest. No No No No mphal-Impha aal I & II lines rea.	roblem Loss

			List of G	rid Disturbar	ices in North-	Eastern Regio	nal Grid d	uring Janu	ary 2016				
क्रम सं ह्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Loktak - Imphal (PG)	POWERGRID		Loktak Imphal (PG)	DP, ZII, R-E DP, ZI, R-E	Not Furnished Not Furnished	No No	No No	Loss of Load:		2/1/2016 16:11	No SPS	
	132 kV Loktak -	MSPCL	2/1/2016 14:43	Loktak	No tripping	Not Furnished	No	No	10	GD-I	2/1/2016 15:25	No SPS	0.007
	Ningthoukhong FIR by the constituent	No		Ningthoukhong	Not Furnished	Not Furnished	No	No					
76	Brief Description of the Incident	Kongba line kep	ot open for system		14:43 Hrs on 01.	02.16, 132 kV Lo	ktak-Ningtho	ukhong line t	ripped. Due to		ingthoukhong line is element, Ningth		
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent (Generation : 101	7 MW , पूर्ववृत्ता	लोड/ Anteceden	t Load : 1534	MW)					
	Restoration Details	Power extended	to Ningthoukhou	ng area of Manipu	ur at 15:25 Hrs of	n 01.02.16 throug	h 132 kV Lok	tak - Ningtho	ukhong line.				
	Root Cause	Ningthoukhong	line tripped due	to ma-operation o	of protective relay	. Detailed analys	is to be done b	y MSPCL.	PG) & 132 kV	Loktak - Nin	gthoukhong lines.	132 kV Lok	tak -
	Remedial Measures			to be checked by Loktak	MSPCL.Vegetat DP, ZI, Y-E	tion clearance to Not Furnished	be done by PC	WERGRID.	Loss of Load:	-			r
	Ningthoukhong	MSPCL	3/19/2016 11:15	Ningthoukhong		Not Furnished	No	No	26	GD-I	3/19/2016 11:27	No SPS	0.008
	FIR by the constituent	No											
77	Brief Description of the Incident	Ningthoukhong	line kept open fo	was connected w r system constrai Grid and subsequ	nt). At 11:15 Hrs	on 19.03.16, 13	2 kV Loktak-l	ngthoukhong Ningthoukhoi	line (132 kV k 1g line tripped.	akching-Kon Due to trippi	gba line & 132 kV ng of this element	/ Imphal(PG) , Ningthoukh	- iong area
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 113	0 MW , पूर्ववृत्ता	लोड/ Anteceden	t Load : 1846	MW)					
	Restoration Details	Power extended	to Ningthoukhou	ng area of Manipu	ar at 11:27 Hrs or	19.03.16 throug	h 132 kV Lok	tak - Ningtho	ukhong line.				
	Root Cause	Due to vegetation	on problem in the	line,132 kV Lok				, v	, v				
	Remedial Measures 132 kV Loktak -		rance to be done	by MSPCL. Loktak	Earth Fault	Not applicable	No	No	Loss of Load:	1			r
	Ningthoukhong	MSPCL	3/31/2016 17:25	Ningthoukhong		Not applicable	No	No	35	GD-I	3/31/2016 17:57	No SPS	0.02
78	FIR by the constituent Brief Description of the Incident Antecedent Conditions of	Ningthoukhong was separated f	line kept open for rom rest of NER	r system constrai Grid and subsequ	nt). At 17:25 Hrs aently collapsed of	on 31.03.16, 132 lue to no source i	kV Loktak-N n this area.	lingthoukhon			gba line & 132 kV ng of this element,		
	NER Grid			Generation : 121									
	Restoration Details Root Cause			ng area of Manipu line or downstrea									
	Remedial Measures									hecked by M	SPCL in consultat	ion with	
	132 kV Loktak -	MSPCL	3/19/2016 11:35	Loktak	DP, ZI, Y-E	Not Furnished	No	No	Loss of Load:	GD-I	3/19/2016 14:12	No SPS	0.002
	Ningthoukhong FIR by the constituent	No		Ningthoukhong	Earth Fault	Not Furnished	No	No	4				0.000
79	Brief Description of the Incident	Ningthoukhong Ningthoukhong	line kept open fo		nt). At 11:35 Hrs	on 19.03.16, 13	2 kV Loktak-!				gba line & 132 kV ng of this element		
	Antecedent Conditions of NER Grid Restoration Details			Generation : 113					thoukhong li-				
	Restoration Details Root Cause			line, 132 kV Lok				·····(1 ()/*·14111	Saroukiiong IIII	~			
	Remedial Measures		rance to be done	by MSPCL.									
	132 kV Loktak - Ningthoukhong	MSPCL	4/7/2016 10:13	Loktak Ningthoukhong	DP, ZIII, B-E No tripping	Not Furnished Not Furnished	No No	No	Loss of Load: 25	GD-I	4/7/2016 10:54	No SPS	0.024
	FIR by the constituent	No	!	1 mguloukilolig	. to upping	, tox i uninsidu	110	110	2.3	!	!	ļ	
80	Brief Description of the Incident	Kongba line kep	ot open for system		10:13 Hrs on 07	.04.16 , 132 kV	.oktak-Ningth				Vingthoukhong lin this element, Nin		
	Antecedent Conditions of NER Grid			Seneration : 128									
	Root Cause Remedial Measures			wnstream of Ning by MSPCL, Relay						hecked by M	SPCL in consultat	ion with	
	132 kV Loktak -	MSPCL	4/12/2016 11:57	Loktak	Earth Fault	Not applicable	No	No	Loss of Load:	GD-I	4/12/2016 12:40	No SPS	0.001
	Ningthoukhong			Ningthoukhong	Not Furnished	Not applicable	No	No	14	00-1	-012/2010 12:40	10313	0.001
	FIR by the constituent	No											

			List of G	rid Disturban	ces in North-I		
क्रम सं छ्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की रिले संकेत / Relay indications provided by CR operator		
81	Brief Description of the Incident	Ningthoukhong	line kept open fo	was connected wi or system constrain Grid and subsequ	nt). At 11:57 Hrs		
	Antecedent Conditions of NER Grid	·• -		Generation : 1650			
	Incident Antecedent Conditions o NER Grid Root Cause Remedial Measures			of Ningthoukhong			
		Remedial measu	ires after identifi	cation of root caus			
	132 kV Loktak - Ningthoukhong	MSPCL	4/24/2016 3:04	Loktak Ningthoukhong	DP, ZI, R-E Not Furnished		
	FIR by the constituent	No					
82	Brief Description of the Incident Antecedent Conditions of	Ningthoukhong was separated f	line kept open for rom rest of NER	was connected wi or system constrain Grid and subsequ	nt). At 03:04 Hrs ently collapsed d		
	NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 1316	० м. भू ववृत्ताः		
	Root Cause	Due to vegetation	on problem in the	line, 132 kV Lok	tak - Ningthoukh		
	Remedial Measures	Vegetation clean	rance to be done	by MSPCL.			
	132 kV Loktak - Ningthoukhong	MSPCL	5/13/2016 16:55	Loktak Ningthoukhong	DP, ZI, B-E Earth Fault		
	FIR by the constituent	No					
83	Brief Description of the Incident	Ningthoukhong	line kept open fo	was connected wi or system constrain Grid and subseque	nt). At 16:55 Hrs		
	Antecedent Conditions of NER Grid	(पूर्ववृत्ती उत्पदिन/ Antecedent Generation : 1750 MW ,					
	Root Cause	ed from both end					
	Remedial Measures	Vegetation and	tower footing res	istance to be chec			
	132 kV Loktak - Ningthoukhong	MSPCL	5/15/2016 12:01	Loktak Ningthoukhong	DP, ZII, B-E No tripping		
	FIR by the constituent	No					
	Brief Description of the Incident		-	was connected wi			

			List of G	rid Disturb	ances in Nortl	h-Eastern Reg	ional Grid	during Jar	nuary 2016				
क्रम सं छया/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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 (V/D)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Loktak - Rengpang	MSPCL	1/9/2016 10:58	Loktak	DP, ZI, Y-B-E	Not Furnished	No	No	Loss of Load: 2	GD-I	1/9/2016 14:56	No SPS	0.008
				Rengpang	Not Furnished	Not Furnished	No	No	2				
	FIR by the constituent	No											
85			2 kV Loktak-Ren) line is under long and subsequently		
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	eneration : 12	32 MW , पूर्ववृत्	ता लोड/ Antecede	nt Load : 14	45 MW)					
	Restoration Details	Power extended	to Rengpang are	a of Manipur at	t 14:56 Hrs on 09	0.01.16 through 12	32 kV Loktak	- Rengpang l	ine.				
	Root Cause	Tripping due to	Vegetation probl	em									
	Remedial Measures	Vegetation clear	ance to be done l	by MSPCL.									
	132 kV Loktak - Rengpang	MSPCL	1/13/2016 12:03	Loktak Rengpang	DP, ZI, B-E Not Furnished	Not Furnished Not Furnished	No No	No No	Loss of Load: 2	GD-I	1/14/2016 15:08	No SPS	0.054
	FIR by the constituent	No											
86			32 kV Loktak-Re) line is under long id and subsequent		
	Antecedent Conditions of NER Grid					ता लोड/ Antecede							
	Restoration Details				t 15:08 Hrs on 14	.01.16 through 13	32 kV Loktak	- Rengpang l	ine.				
	Root Cause		Vegetation probl										
	Remedial Measures	Vegetation clean	ance to be done l	by MSPCL.									
	132 kV Loktak - Rengpang	MSPCL	2/6/2016 14:21	Loktak Rengpang	DP, ZI, B-E Not Furnished	Not Furnished Not Furnished	No No	No No	Loss of Load: 2	GD-I	2/7/2016 15:34	No SPS	0.051
	FIR by the constituent	No			-				-		-		
87	Brief Description of the	on 06.02.16,132	-	pang line tripp		-	•1	-	•. •) line is under long and subsequently		
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent C	eneration : 12	216 MW , पूर्ववृत्	ता लोड/ Antecede	ent Load : 150	03 MW)					

			List of G	rid Disturb	ances in Nortl	h-Eastern Reg	ional Grid	during Jar	uarv 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Restoration Details	Power extended	to Rengpang are	a of Manipur at	15:34 Hrs on 07	7.02.16 through 12	32 kV Loktak	- Rengpang l	ine.				
	Root Cause	Due to vegetation	on problem in the	line,132 kV Lo	ktak - Rengpang	g line tripped.							
	Remedial Measures	Vegetation clear	rance to be done	by MSPCL.									
	132 kV Loktak - Rengpang	MSPCL	5/13/2016 17:08	Loktak	DP, ZI, B-E	Not Furnished	No	No	Loss of Load:	GD-I	5/14/2016 16:57	No SPS	0.048
	152 KV Loktak - Kengpang		5/15/2010 17:00	Rengpang	No tripping	Not Furnished	No	No	2	00-1	5/14/2010 10.57	10515	0.040
	FIR by the constituent	No											
88	Brief Description of the Incident		2 kV Loktak-Ren			U	01	U N	01 0) line is under long and subsequently		
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent (Generation : 17	59 MW , पूर्ववृत	ता लोड/ Antecede	ent Load : 150	01 MW)					
	Root Cause		line due to veget	<u>.</u>									
	Remedial Measures	Vegetation to be	e cleared by MSP				-			1			
	132 kV Loktak - Rengpang	MSPCL	5/15/2016 15:24	Loktak Rengpang		Not Furnished Not Furnished	No No	No No	Loss of Load: 2	GD-I	Not Yet Restored	No SPS	
	FIR by the constituent	No											
89	Brief Description of the			. 1 . 1		4 1 100 1 17				Jiriham(MA) 1:	outogo) At	15.04 II
	Incident	Rengpang area of on 15.05.16, 132 source in this ar	2 kV Loktak-Ren								and subsequently		
	•	on 15.05.16, 132 source in this ar	2 kV Loktak-Ren ea.	gpang line tripp	bed. Due to trippi		t,Rengpang a	rea was sepa					
	Incident Antecedent Conditions of NER Grid Root Cause	on 15.05.16, 132 source in this an (पूर्ववृ त्ता उत्पाद Fault in line the	2 kV Loktak-Ren ea. न/ Antecedent (line due to veget	gpang line tripp Generation : 18 ation problem.	bed. Due to trippi 23 MW , पूर्ववृत	ing of this elemen	t,Rengpang a	rea was sepa					
	Incident Antecedent Conditions of NER Grid	on 15.05.16, 132 source in this an (पूर्ववृ त्ता उत्पाद Fault in line the	2 kV Loktak-Ren ea. न/ Antecedent (gpang line tripp Generation : 18 ation problem.	oed. Due to trippi 23 MW , पूर्ववृत् st.	ing of this elemen	t,Rengpang a	rea was sepa					
	Incident Antecedent Conditions of NER Grid Root Cause	on 15.05.16, 132 source in this an (पूर्ववृ त्ता उत्पाद Fault in line the	2 kV Loktak-Ren ea. न/ Antecedent (line due to veget	gpang line tripp Generation : 18 ation problem. 'CL at the earlie Loktak	ed. Due to trippi 23 MW , पूर्वव् त st. DP, ZI, B-E, 18.4 Kms.	ing of this elemer ता लोड/ Antecede Not Furnished	nt Load : 134	rea was sepa 40 MW) No					
	Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Loktak - Rengpang	on 15.05.16, 132 source in this an (पूर्ववृत्ता उत्पाद Fault in line the Vegetation to be MSPCL	2 kV Loktak-Ren ea. 	gpang line tripp Generation : 18 ation problem. CL at the earlie	ed. Due to trippi 23 MW , पूर्ववृत् st. DP, ZI, B-E,	ing of this elemer না লাঁਤ/ Antecede	nt,Rengpang a	rea was sepa	Loss of Load:	of NER Grid	and subsequently	collapsed due	e to no
90	Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures	on 15.05.16, 132 source in this are (पूर्ववृ त्ता उत्पाद Fault in line the Vegetation to be MSPCL No Rengpang area o	2 kV Loktak-Ren ea. in/ Antecedent (line due to veget cleared by MSP 6/2/2016 11:30 of Manipur was c 2 kV Loktak-Ren	Generation : 18 Generation : 18 ation problem. 'CL at the earlie Loktak Rengpang connected with r	ed. Due to trippi 23 MW , पूर्ववृत् st. DP, ZI, B-E, 18.4 Kms. Earth Fault est of NER Grid	ing of this elemer ता लोड/ Antecede Not Furnished Not Furnished through 132 kV	nt Load : 134 No No Loktak-Rengp	rea was sepa 40 MW) No No ang line (132	Loss of Load: 2 2 kV Rengpang-	of NER Grid GD-I Jiribam(MA	and subsequently	No SPS	0.014 0.11:30 Hrs
90	Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Loktak - Rengpang FIR by the constituent Brief Description of the	on 15.05.16, 132 source in this an (पूर्ववृत्ता उत्पाद Fault in line the Vegetation to be MSPCL No Rengpang area of on 02.06.16, 132 source in this an	2 kV Loktak-Ren ea. in/ Antecedent (line due to veget cleared by MSP 6/2/2016 11:30 of Manipur was c 2 kV Loktak-Ren	gpang line tripp Generation : 18 ation problem. 'CL at the earlied Loktak Rengpang connected with r gpang line tripp	ed. Due to trippi 23 MW , पूर्वव् त st. DP, ZI, B-E, 18.4 Kms. Earth Fault rest of NER Grid bed. Due to trippi	ing of this elemer ता लोड/ Antecedo Not Furnished Not Furnished through 132 kV ing of this elemer	nt Load : 134 No No Loktak-Rengp	rea was sepa 40 MW) No No ang line (132	Loss of Load: 2 2 kV Rengpang-	of NER Grid GD-I Jiribam(MA	and subsequently 6/2/2016 18:31) line is under long	No SPS	0.014 0.11:30 Hrs
90	Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Loktak - Rengpang FIR by the constituent Brief Description of the Incident Antecedent Conditions of	on 15.05.16, 132 source in this an (पूर्ववृत्ता उत्पाद Fault in line the Vegetation to be MSPCL No Rengpang area of on 02.06.16, 132 source in this an	2 kV Loktak-Ren ea. 	gpang line tripp Generation : 18 ation problem. 'CL at the earlied Loktak Rengpang connected with r gpang line tripp	ed. Due to trippi 23 MW , पूर्वव् त st. DP, ZI, B-E, 18.4 Kms. Earth Fault rest of NER Grid bed. Due to trippi	ing of this elemer ता लोड/ Antecedo Not Furnished Not Furnished through 132 kV ing of this elemer	nt Load : 134 No No Loktak-Rengp	rea was sepa 40 MW) No No ang line (132	Loss of Load: 2 2 kV Rengpang-	of NER Grid GD-I Jiribam(MA	and subsequently 6/2/2016 18:31) line is under long	No SPS	0.014 0.11:30 Hrs

			List of	Grid Disturba	nces in North	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID	2/27/2016	Khliehriat (PG) Khliehriat (ME)	DP, ZIII, Y-E No tripping	Not Furnished Not Furnished	Yes No	Yes	Loss of Load:		2/27/2016 14:42	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	14:14	Khliehriat (NE) Khliehriat (ME)		Not Furnished Not Furnished	Yes	Yes	51& Loss of Generation: 0	GD-I	2/27/2016 14:43	No SPS	0.001
	FIR by the constituent	Yes		•		•			•				
91	Brief Description of the Incident	NEHU-Umiam l	line & 132 kV N	s connected with r EHU-Mawlai line elements, Khleihri	were kept open fo	or system requiren	nent). At 14:1	4 Hrs on 27.	02.16 ,132 kV I	Khliehriat (P	G)-Khliehriat (Me	PTCL) I & II	lines
	Antecedent Conditions of NER Grid			Generation : 979 I				W)					
	Restoration Details	Power extended	to NEHU area a	t 14:16 Hrs on 27.	02.16 through 132	kV NEHU-Umia	um line.						
	Root Cause		<u> </u>	n,132 kV Khliehria			11						
	Remedial Measures		earthing has to l	aya substations to be done by MePTC									
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID	2/28/2016	Khliehriat (PG) Khliehriat (ME)	DP, ZI, B-E No tripping	Not Furnished Not Furnished	Yes No	No No	Loss of Load: 31& Loss of	GD-I	2/28/2016 13:18	No SPS	0.003
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	12:54	Khliehriat (PG) Khliehriat (ME)	DP, ZI, B-E No tripping	Not Furnished Not Furnished	Yes No	No No	Generation: 0	UD-1	2/28/2016 13:19	No SPS	0.005
	FIR by the constituent	Yes											
92	Brief Description of the Incident	NEHU-Umiam l	line & 132 kV N	s connected with r EHU-Mawlai line elements, Khleihri	were kept open fo	or system requiren	nent). At 12:5	54 Hrs on 28	.02.16 ,132 kV	Khliehriat (l	PG)-Khliehriat (M	ePTCL) I &	II lines
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 1019	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	.oad : 1226 N	1W)					
	Restoration Details	Power extended	to NEHU area a	t 12:58 Hrs on 28.	02.16 through 132	kV NEHU-Umia	um line.						
	Root Cause	Due to fault in N	Aeghalaya system	n,132 kV Khliehria	at (PG) - Khliehria	at (ME) I&II lines	tripped due to	o non clearan	ce of fault at do	wnstream of	Khliehriat (ME).		
	Remedial Measures		earthing has to l	aya substations to be done by MePTC									
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat (ME)	DP, ZI, R-Y-B DP, ZII, R-Y-B		Yes No	No No	Loss of Load:		2/28/2016 15:59	No SPS	

			List of	Grid Disturba	ances in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ड्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Khliehriat (PG) -	MePTCL	2/28/2016	Khliehriat (PG)			Yes	No	43	CD I	2/28/2016 15:53	No SPS	0.017
	Khliehriat (ME) II Leshka U 1	MePGCL	15:14	Khliehriat (ME) Leshka	DP, ZII, R-Y-B Tripped due to tripping of Lock out Relay		No No	No No	Loss of Generation: 5	GD-I	2/28/2016 17:30	No SPS	0.017
	FIR by the constituent	Yes			J. J.	<u></u>							
93	⁹³ Brief Description of the Incident Khliehriat area of Meghalaya was connected with rest of NER Grid through 132 kV Khliehriat (PG)-Khliehriat (MePTCL) I & II lines. (132 kV Panchgram-Lumnsnong line, 132 kV NEHU-Umiam line & 132 kV NEHU-Mawlai line were kept open for system requirement). At 15:14 Hrs on 28.02.16, 132 kV Khliehriat (PG)-Khliehriat (MePTCL) I & II lines (MePTCL) I &												
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 1019	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	.oad : 1160 N	IW)					
	Restoration Details			t 15:21 Hrs on 28.									
	Root Cause	The distance sho	own for the Line	- 1 at Khliehriat(P	G) end was 17.51	Km, which is bey	ond the line l	ength (7.801	Km). The line t	ripped due to	fault in the MeEC	CL system.	
	D 1111									T 11			
	Remedial Measures	All main protect	ions (Distance R	elays) at MeECL	end are lying in-op	erative, which ar	e to be made f	unctional afte	er completing the	he Earthing o	f the switchyard.		
	132 kV Khliehriat (PG) - Khliehriat (ME) I	All main protect POWERGRID	ions (Distance R 2/28/2016	elays) at MeECL (Khliehriat (PG) Khliehriat (ME)	DP, ZIII, Y-E		e to be made f Yes No	unctional afte No No	er completing the Loss of Load:		f the switchyard. 2/28/2016 17:14	No SPS	0.005
	132 kV Khliehriat (PG) -	-		Khliehriat (PG)	DP, ZIII, Y-E No tripping	Not Furnished	Yes	No		GD-I	-	No SPS No SPS	0.005
	132 kV Khliehriat (PG) - Khliehriat (ME) I 132 kV Khliehriat (PG) -	POWERGRID MePTCL Yes	2/28/2016 16:00	Khliehriat (PG) Khliehriat (ME) Khliehriat (PG) Khliehriat (ME)	DP, ZIII, Y-E No tripping DP, ZIII, Y-E No tripping	Not Furnished Not Furnished Not Furnished Not Furnished	Yes No Yes No	No No No	Loss of Load: 23	GD-I	2/28/2016 17:14 2/28/2016 16:13	No SPS	
94	132 kV Khliehriat (PG) - Khliehriat (ME) I 132 kV Khliehriat (PG) - Khliehriat (ME) II	POWERGRID MePTCL Yes Khliehriat area o NEHU-Umiam I	2/28/2016 16:00 of Meghalaya wa ine & 132 kV N	Khliehriat (PG) Khliehriat (ME) Khliehriat (PG)	DP, ZIII, Y-E No tripping DP, ZIII, Y-E No tripping est of NER Grid th were kept open for	Not Furnished Not Furnished Not Furnished Not Furnished mrough 132 kV K r system requiren	Yes No Yes No hliehriat (PG) nent). At 16:0	No No No -Khliehriat (N 00 Hrs on 28	Loss of Load: 23 MePTCL) I & II .02.16 ,132 kV	GD-I I lines. (132 k Khliehriat (I	2/28/2016 17:14 2/28/2016 16:13 V Panchgram-Lur PG)-Khliehriat (M	No SPS nnsnong line ePTCL) I & l	e, 132 kV II lines
94	132 kV Khliehriat (PG) - Khliehriat (ME) I 132 kV Khliehriat (PG) - Khliehriat (ME) II FIR by the constituent Brief Description of the	POWERGRID MePTCL Yes Khliehriat area o NEHU-Umiam I tripped. Due to t	2/28/2016 16:00 of Meghalaya wa line & 132 kV N ripping of these	Khliehriat (PG) Khliehriat (ME) Khliehriat (PG) Khliehriat (ME) s connected with r EHU-Mawlai line	DP, ZIII, Y-E No tripping DP, ZIII, Y-E No tripping est of NER Grid th were kept open for at area was separa	Not Furnished Not Furnished Not Furnished Not Furnished nrough 132 kV K r system requiren ted from rest of N	Yes No Yes No hliehriat (PG) nent). At 16:(IER Grid and	No No No -Khliehriat (N 00 Hrs on 28 subsequent c	Loss of Load: 23 MePTCL) I & II .02.16 ,132 kV	GD-I I lines. (132 k Khliehriat (I	2/28/2016 17:14 2/28/2016 16:13 V Panchgram-Lur PG)-Khliehriat (M	No SPS nnsnong line ePTCL) I & l	e, 132 kV II lines
94	132 kV Khliehriat (PG) - Khliehriat (ME) I 132 kV Khliehriat (PG) - Khliehriat (ME) II FIR by the constituent Brief Description of the Incident Antecedent Conditions	POWERGRID MePTCL Yes Khliehriat area o NEHU-Umiam l tripped. Due to t (पूर्ववृत्ता उत्पाद	2/28/2016 16:00 of Meghalaya wa line & 132 kV N ripping of these F/ Antecedent C to NEHU area a	Khliehriat (PG) Khliehriat (ME) Khliehriat (PG) Khliehriat (ME) s connected with r EHU-Mawlai line elements, Khleihri Generation : 1021 t 16:05 Hrs on 28.	DP, ZIII, Y-E No tripping DP, ZIII, Y-E No tripping est of NER Grid t were kept open fo at area was separa MW, पूर्ववृत्ता ल 02.16 through 132	Not Furnished Not Furnished Not Furnished nrough 132 kV K r system requiren ted from rest of N 15/ Antecedent I kV NEHU-Umia	Yes No Yes No hliehriat (PG) hent). At 16:0 JER Grid and Load : 1203 M mm line.	No No No -Khliehriat (N 00 Hrs on 28 subsequent c 1W)	Loss of Load: 23 MePTCL) I & II .02.16 ,132 kV ollapsed due to	GD-I I lines. (132 k Khliehriat (I no source in	2/28/2016 17:14 2/28/2016 16:13 V Panchgram-Lur PG)-Khliehriat (M this area.(Load lo	No SPS nnsnong line ePTCL) I & l	e, 132 kV II lines
94	132 kV Khliehriat (PG) - Khliehriat (ME) I 132 kV Khliehriat (PG) - Khliehriat (ME) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid	POWERGRID MePTCL Yes Khliehriat area o NEHU-Umiam l tripped. Due to t (पूर्ववृत्ता उत्पाद	2/28/2016 16:00 of Meghalaya wa line & 132 kV N ripping of these F/ Antecedent C to NEHU area a	Khliehriat (PG) Khliehriat (ME) Khliehriat (PG) Khliehriat (ME) s connected with r EHU-Mawlai line elements, Khleihri Generation : 1021	DP, ZIII, Y-E No tripping DP, ZIII, Y-E No tripping est of NER Grid t were kept open fo at area was separa MW, पूर्ववृत्ता ल 02.16 through 132	Not Furnished Not Furnished Not Furnished nrough 132 kV K r system requiren ted from rest of N 15/ Antecedent I kV NEHU-Umia	Yes No Yes No hliehriat (PG) hent). At 16:0 JER Grid and Load : 1203 M mm line.	No No No -Khliehriat (N 00 Hrs on 28 subsequent c 1W)	Loss of Load: 23 MePTCL) I & II .02.16 ,132 kV ollapsed due to	GD-I I lines. (132 k Khliehriat (I no source in	2/28/2016 17:14 2/28/2016 16:13 V Panchgram-Lur PG)-Khliehriat (M this area.(Load lo	No SPS nnsnong line ePTCL) I & l	e, 132 kV II lines
94	132 kV Khliehriat (PG) - Khliehriat (ME) I 132 kV Khliehriat (PG) - Khliehriat (ME) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Restoration Details	POWERGRID MePTCL Yes Khliehriat area of NEHU-Umiam I tripped. Due to t (पूर्ववृत्ता उत्पाद Power extended Due to fault in M Earthing work re	2/28/2016 16:00 of Meghalaya wa line & 132 kV N ripping of these F / Antecedent (to NEHU area a deghalaya system elated to Meghala earthing has to b	Khliehriat (PG) Khliehriat (ME) Khliehriat (PG) Khliehriat (ME) s connected with r EHU-Mawlai line elements, Khleihri Generation : 1021 t 16:05 Hrs on 28.	DP, ZIII, Y-E No tripping DP, ZIII, Y-E No tripping est of NER Grid th were kept open for at area was separa MW, पूर्ववृत्ता ल 02.16 through 132 at (PG) - Khliehria be completed as se	Not Furnished Not Furnished Not Furnished Not Furnished nrough 132 kV K r system requiren ted from rest of N IS/ Antecedent I kV NEHU-Umia at (ME) I&II lines pon as possible. A	Yes No Yes No hliehriat (PG) hent). At 16:0 VER Grid and Load : 1203 M um line. tripped due to fter completion	No No No -Khliehriat (N 00 Hrs on 28 subsequent c fW)	Loss of Load: 23 MePTCL) I & II .02.16 ,132 kV ollapsed due to ce of fault at do hing, tower foo	GD-I I lines. (132 k Khliehriat (I no source in ownstream of oting resistance	2/28/2016 17:14 2/28/2016 16:13 V Panchgram-Lun PG)-Khliehriat (M this area.(Load loo Khliehriat (ME). ce to be checked an	No SPS mnsnong line ePTCL) I & 1 ss in MU:0.0 nd in case of	e, 132 kV II lines 05) more than
94	132 kV Khliehriat (PG) - Khliehriat (ME) I 132 kV Khliehriat (PG) - Khliehriat (ME) II FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Restoration Details Root Cause	POWERGRID MePTCL Yes Khliehriat area of NEHU-Umiam I tripped. Due to t (पूर्ववृत्ता उत्पाद Power extended Due to fault in M Earthing work re 10 ohms, proper	2/28/2016 16:00 of Meghalaya wa line & 132 kV N ripping of these F / Antecedent (to NEHU area a feghalaya system elated to Meghala earthing has to b	Khliehriat (PG) Khliehriat (ME) Khliehriat (PG) Khliehriat (ME) s connected with r EHU-Mawlai line elements, Khleihri Generation : 1021 t 16:05 Hrs on 28. n,132 kV Khliehria aya substations to	DP, ZIII, Y-E No tripping DP, ZIII, Y-E No tripping est of NER Grid ti were kept open for at area was separa MW , ųđē crcī ce 02.16 through 132 at (PG) - Khliehria be completed as so CL.Relay settings of DP, ZIII, Y-E	Not Furnished Not Furnished Not Furnished Not Furnished nrough 132 kV K r system requiren ted from rest of N IS/ Antecedent I kV NEHU-Umia at (ME) I&II lines pon as possible. A	Yes No Yes No hliehriat (PG) hent). At 16:0 VER Grid and Load : 1203 M um line. tripped due to fter completion	No No No -Khliehriat (N 00 Hrs on 28 subsequent c fW)	Loss of Load: 23 MePTCL) I & II .02.16 ,132 kV ollapsed due to ce of fault at do hing, tower foo	GD-I I lines. (132 k Khliehriat (I no source in ownstream of oting resistance	2/28/2016 17:14 2/28/2016 16:13 V Panchgram-Lun PG)-Khliehriat (M this area.(Load loo Khliehriat (ME). ce to be checked an	No SPS mnsnong line ePTCL) I & 1 ss in MU:0.0 nd in case of	e, 132 kV II lines 05) more than

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janu	arv 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Khliehriat (ME) II	Mer ICL		Khliehriat(ME)	No tripping	Not Furnished	No	No			3/19/2010 12.10	110 212	
	FIR by the constituent	Yes				_	-	-			-		
95	Brief Description of the Incident	Incident INEFIG-Omianin line & 132 kV NEFIG-Mawiai line were kept open for system requirement). At 11:49 Hrs on 19.03.16,132 kV Kninennat (PG)-Kninennat (P											
	Antecedent Conditions of NER Grid												
	Restoration Details												
	Root Cause				at (PG) - Khliehria								
	Remedial Measures		earthing has to b		be completed as so CL.Relay settings o								
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID	3/19/2016 12:29	Khliehriat (PG)	DP, ZIII, R-Y-B		Yes	No			3/19/2016 12:50	No SPS	
				Khliehriat(ME)	No tripping	Not Furnished	No	No	Loss of Load:	GD-I			0.005
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	3/19/2016 12:30	Khliehriat (PG)		Not Furnished	Yes	No	13	-	3/19/2016 13:05	No SPS	
				Khliehriat(ME)	No tripping	Not Furnished	No	No					
	FIR by the constituent	Yes											
96	Brief Description of the Incident	NEHU-Umiam	line & 132 kV NI	EHU-Mawlai line	est of NER Grid th were kept open fo at area was separa	r system requiren	nent). At 12:3	0 Hrs on 19.0	3.16 ,132 kV K	Chliehriat (PC	B)-Khliehriat (Mel		
	Antecedent Conditions						1 1000 1						
	of NER Grid		न/ Antecedent G					1W)					
	Restoration Details	Power extended	to NEIGRIMS at	t 12:57 Hrs on 19.	03.16 through 132	kV NEHU-NEI	GRIMS line.						
		Power extended Due to fault in M	to NEIGRIMS at leghalaya system	t 12:57 Hrs on 19. 1,132 kV Khliehria	03.16 through 132 at (PG) - Khliehria	kV NEHU-NEIC tt (ME) I&II lines	GRIMS line. tripped due to	o non clearan					
	Restoration Details	Power extended Due to fault in N Earthing work re	to NEIGRIMS at Meghalaya system elated to Meghala earthing has to b	t 12:57 Hrs on 19. a,132 kV Khliehria aya substations to	03.16 through 132	kV NEHU-NEI0 tt (ME) I&II lines oon as possible. A	GRIMS line. tripped due to fter completio	o non clearan on of S/S eart	hing, tower foo	oting resistance	ce to be checked a		
	Restoration Details Root Cause	Power extended Due to fault in M Earthing work re 10 ohms, proper	to NEIGRIMS at Meghalaya system elated to Meghala earthing has to b	t 12:57 Hrs on 19. a,132 kV Khliehria aya substations to	03.16 through 132 at (PG) - Khliehria be completed as so CL.Relay settings of DP, ZI, R-Y-E	kV NEHU-NEIC at (ME) I&II lines bon as possible. A of Meghalaya sub	GRIMS line. tripped due to fter completio	o non clearan on of S/S eart	hing, tower foo	oting resistance	ce to be checked a		

			List of	Grid Disturba	ances in North	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	SPS Operation	एमयू में हानि/ Loss in MU
	Khliehriat (ME) II	MericL		Khliehriat(ME)	No tripping	Not Furnished	No	No			3/20/2010 3.11	110 31 3	
	FIR by the constituent	Yes			-	-							
97	Brief Description of the Incident	Incident Incident Incident Incident Incident (NEFIC-) T& II fines the second of the se											
	Antecedent Conditions of NER Grid (पूर्ववृत्ता उत्पादन/ Antecedent Generation : 1149 MW, पूर्ववृत्ता लोड/ Antecedent Load : 1671 MW) Restoration Details Power extended to NEHU at 02:33 Hrs on 28.03.16 and to NEIGRIHMS through 132kV Umiam-NEHU-NEIGRIMS. 132kV Khliehriat (PG)-Khliehriat line I and II at 03:12hrs.												
	Restoration Details					, i i i i i i i i i i i i i i i i i i i						and II at 03:1	2hrs.
	Root Cause	Due to fault in N	Meghalaya systen	n,132 kV Khliehria	at (PG) - Khliehria	at (ME) I&II lines	tripped due t	o non clearan	ce of fault at do	wnstream of	Khliehriat (ME).		
	Remedial Measures	•	earthing has to l	aya substations to be done by MePTC	-	-	-		•	•			
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID	3/31/2016 0:40	Khliehriat (PG) Khliehriat(ME)	Not Furnished	Not Furnished	No No	No No	Loss of Load:	GD-I	3/31/2016 2:22	No SPS	0.006
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL		Khliehriat (PG) Khliehriat(ME)	, ,	Not Furnished Not Furnished	No No	No No	12		3/31/2016 2:26	No SPS	
	FIR by the constituent	Yes											
98	Brief Description of the Incident	NEHU-Umiam	line & 132 kV N	s connected with r EHU-Mawlai line leihriat area was so	were kept open fo	or system requiren	nent). At 00:4	0 Hrs on ,13	2 kV Khliehriat	(PG)-Khliel	•	•	
	Antecedent Conditions of NER Grid			Generation : 1254	., .								
	Restoration Details			:11 Hrs on 31.03.1									
	Root Cause			n,132 kV Khliehria									
	Remedial Measures		earthing has to l	aya substations to be done by MePTC									
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat(ME)		Not Furnished Not Furnished	No No	No No	Loss of Load:		4/14/2016 20:44	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL]	Khliehriat (PG) Khliehriat(ME)		Not Furnished Not Furnished	No No	No No	40		4/14/2016 20:45	No SPS	

			List of	Grid Disturba	ances in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं डा. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator		सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Leshka U 2	MePGCL	4/14/2016 20:16	Leshka	Tripped due to tripping of 132	Not applicable	No	No	Loss of Generation:	GD-I	4/14/2016 21:07	No SPS	0.017
	Leshka U 3	MePGCL		Leshka	kV Khl(PG)- Khl I&II lines	Not applicable	No	No	84		4/14/2016 21:26	No SPS	
	FIR by the constituent	Yes				•	J						
99	Brief Description of the Incident	NEHU-Umiam	line & 132 kV N	s connected with r EHU-Mawlai line elements, Khleihri	were kept open fo	or system requiren	nent). At 20:1	6 Hrs on 14.0	4.16 ,132 kV K	Chliehriat (PG	b)-Khliehriat (MeH	•	
	Antecedent Conditions of NER Grid			Generation : 1366									
	Root Cause	seems because o	of lightning.	ya system,132 kV				•					
	Remedial Measures		earthing has to b	aya substations to be done by MePTC									
	132 kV Khliehriat (PG) -	POWERGRID			DP, ZI, R-Y-B	Not Furnished	No	No			4/16/2016 8:26	No SPS	
	Khliehriat (ME) I	FOWERORID		Khliehriat(ME)	DP, ZI, R-Y-B	Not Furnished	No	No	Loss of Load:		4/10/2010 8.20	10 515	
	132 kV Khliehriat (PG) -	MePTCL		Khliehriat (PG)	DP, ZI, R-Y-B	Not Furnished	No	No	44		4/16/2016 8:34	No SPS	
	Khliehriat (ME) II	Mei i CL		Khliehriat(ME)	DP, ZI, R-Y-B	Not Furnished	No	No		ar -	+,10,2010 0.34	10010	0.5
	Leshka U 2	MePGCL	4/16/2016 7:51	Leshka	Tripped due to Tripping of 132	Not applicable	No	No	Loss of	GD-I	4/16/2016 9:00	No SPS	0.002
					111pping of 152				(anoration:				
	Leshka U 3	MePGCL		Leshka	kV Khl(PG)- Khl I&II lines	Not applicable	No	No	Generation: 84		4/16/2016 9:00	No SPS	
	Leshka U 3 FIR by the constituent	MePGCL Yes		Leshka	kV Khl(PG)-	Not applicable	No	No			4/16/2016 9:00	No SPS	
100		Yes Khliehriat area o NEHU-Umiam	line & 132 kV N	Leshka s connected with r EHU-Mawlai line elements, Khleihri	kV Khl(PG)- Khl I&II lines est of NER Grid t were kept open fo	hrough 132 kV Ki	hliehriat (PG) nent). At 07:5	-Khliehriat (N 1 Hrs on 16.0	84 MePTCL) I & II 04.16 ,132 kV I	Khliehriat (PC	V Panchgram-Lui G)-Khliehriat (Me	nnsnong line	

			List of	Grid Disturba	ances in North	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Root Cause	Due to lighning seems because of		ya system,132 kV	Khliehriat (PG) -	Khliehriat (ME)	&II lines trip	ped due to no	n clearance of f	ault at down	stream of Khliehri	at (ME).R-Y	-B fault
	Remedial Measures	Earthing work r	elated to Meghal r earthing has to b	aya substations to be done by MePTC	CL.Relay settings	of Meghalaya sub	stations are to	be checked l					
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG) Khliehriat(ME)	DP, ZI, R-Y-B DP, ZI, R-Y-B		No No	No	I and of I and.		4/16/2016 10:17	No SPS	
	Khliehriat (ME) I 132 kV Khliehriat (PG) -		-	Khliehriat (PG)			No No	No No	Loss of Load: 20				
	Khliehriat (ME) II	MePTCL		Khliehriat(ME)		Not Furnished	No	No	20		4/16/2016 10:22	No SPS	
	Leshka U 1	MePGCL	4/16/2016 9:59	Leshka	Tripped due to Tripping of 132	Not applicable	No	No	Loss of Generation:	GD-I	4/16/2016 10:33	No SPS	0.007
	Leshka U 2	MePGCL		Leshka	kV Khl(PG)- Khl I&II lines	Not applicable	No	No	70		4/16/2016 10:33	No SPS	
	FIR by the constituent	Yes		•									
101	Brief Description of the Incident	NEHU-Umiam	line & 132 kV N	s connected with r EHU-Mawlai line elements, Khleihri	were kept open fo	or system requiren	nent). At 09:5	9 Hrs on 16.0)4.16 ,132 kV K	Khliehriat (PC	G)-Khliehriat (Mel	0	
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	ज़/ Antecedent (Generation : 1550	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 1495 N	4W)					
	Root Cause	seems because of	of lightning.	ya system,132 kV									
	Remedial Measures	-	r earthing has to l	aya substations to be done by MePTC	-	-	-			•			
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	, ,		No	No			4/17/2016 21:13	No SPS	
	Khliehriat (ME) I 132 kV Khliehriat (PG) -	<u> </u>	4	Khliehriat(ME) Khliehriat (PG)	No tripping DP, ZI, R-Y-B	Not Furnished	No No	No No	Loss of Load: 24				
	Khliehriat (ME) II	MePTCL		Khliehriat(PG)	DP, ZI, R-Y-B No tripping	Not Furnished	No	No	24		4/17/2016 21:17	No SPS	
	Leshka U 1	MePGCL	4/17/2016 20:55	Leshka	Tripped due to tripping of 132	Not applicable	No	No	Loss of Generation:	GD-I	4/17/2016 21:13	No SPS	0.003

			List of	Grid Disturba	nces in North	-Eastern Regio	onal Grid d	luring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Leshka U 2	MePGCL		Leshka	kV Khl(PG)- Khl I&II lines	Not applicable	No	No	84		4/17/2016 21:13	No SPS	
100	FIR by the constituent	Yes			-								
102	Brief Description of the Incident	NEHU-Umiam	line & 132 kV NI	EHU-Mawlai line		or system requiren	nent). At 20:5	5 Hrs on 17.	04.16 ,132 kV l	Khliehriat (P	V Panchgram-Lu G)-Khliehriat (Me ation mismatch.	•	
	Antecedent Conditions of NER Grid	··• -			MW , पूर्ववृत्ता ल								
	Root Cause	Due to lighning seems because of		ya system,132 kV	Khliehriat (PG) -	Khliehriat (ME) l	&II lines tripp	ped due to no	n clearance of f	ault at downs	stream of Khliehri	at (ME).R-Y-	B fault
	Remedial Measures	-	earthing has to b		-	-	-		-	-	ce to be checked a with POWERGR		
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG)	DP, ZIII, R-Y-B		No	No	Loss of Load:		4/18/2016 21:09	No SPS	
				Khliehriat(ME)	No tripping	Not Furnished	No	No	47				
	132 kV Khliehriat (PG) -	MePTCL		Khliehriat (PG)	DP, ZII, R-Y-B		No	No	-		4/18/2016 21:14	No SPS	
	Khliehriat (ME) II Leshka U 1	MePGCL	4/18/2016 18:40	Khliehriat(ME) Leshka	No tripping Trippe due to tripping of 132	Not Furnished Not applicable	No No	No No		GD-I	4/18/2016 19:04	No SPS	0.004
	Leshka U 2	MePGCL		Leshka	kV Khliehriat (PG) -	Not applicable	No	No	Loss of Generation:		4/18/2016 19:55	No SPS	
	Leshka U 3	MePGCL		Leshka	Khliehriat (ME) I & II lines	Not applicable	No	No	. 105		4/18/2016 20:16	No SPS	
103	FIR by the constituent	Yes				-							
105	Brief Description of the Incident	NEHU- NEIGR	IHMS line & 132	kV NEHU-Must	em line were kept	open for system r	equirement).	At 18:40 Hrs	on 18.04.16, 13	32 kV Khlieh	V Panchgram-Lu riat (PG)-Khliehri generation mismat	at (MePTCL	
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent G	eneration : 1740	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 2122 N	AW)					

			List of	Grid Disturba	ances in North-	Eastern Regio	onal Grid d	uring Janu	arv 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Root Cause	Due to lighning seems because o		ya system,132 kV	Khliehriat (PG) -	Khliehriat (ME) l	&II lines tripj	ped due to no	n clearance of f	ault at downs	stream of Khliehri	at (ME).R-Y-	B fault
	Remedial Measures		earthing has to b		be completed as so CL.Relay settings of								
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat(ME)	DP, ZII, Y-B-E No tripping	Not Furnished Not Furnished	No No	No No	Loss of Load:		4/19/2016 3:55	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL		Khliehriat (ME) Khliehriat (ME)	DP, ZII, Y-B-E No tripping		No No	No No	59		4/19/2016 4:08	No SPS	
	Leshka U 1	MePGCL	4/19/2016 3:42	Leshka	Trippe due to tripping of 132	Not applicable	No	No		GD-I	4/19/2016 4:23	No SPS	0.003
	Leshka U 2	MePGCL		Leshka	kV Khliehriat (PG) -	Not applicable	No	No	Loss of Generation: 126		4/19/2016 4:33	No SPS	
104	Leshka U 3	MePGCL		Leshka	Khliehriat (ME) I & II lines	Not applicable	No	No			4/19/2016 4:46	No SPS	
	FIR by the constituent	Yes							P				
	Brief Description of the Incident	NEHU-Umiam	line & 132 kV N	EHU-Mawlai line	est of NER Grid tl kept open for sys vas separated from	tem requirement)	. At 03:42 Hr	s on 19.04.16	,132 kV Khliel	nriat (PG)-Kl	nliehriat (MePTCI	•	
	Antecedent Conditions of NER Grid				MW , पूर्ववृत्ता ल								
	Root Cause				at (PG) - Khliehria								
	Remedial Measures		earthing has to b		be completed as so CL.Relay settings of								
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		. ,	DP, ZIII, R-Y-B	Not Furnished Not Furnished	No No	No No	Loss of Load:		4/19/2016 9:20	No SPS	
	132 kV Khliehriat (PG) -	MaDTCI		Khliehriat(ME) Khliehriat (PG)	No tripping DP, ZII, R-Y-B		No No	No No	20		1/10/2016 0.13	No CDC	

			List of	Grid Disturba	ances in North	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Khliehriat (ME) II	MEFICL		Khliehriat(ME)	No tripping	Not Furnished	No	No			4/19/2010 9.43	NO SES	
	Leshka U 2	MePGCL	4/19/2016 8:47	Leshka	Trippe due to tripping of 132 kV Khliehriat (PG) - Khliehriat (ME) I & II lines	Not applicable	No	No	Loss of Generation: 42	GD-I	4/19/2016 8:59	No SPS	0.001
105	FIR by the constituent	Yes											
	Brief Description of the Incident	Umiam-Umiam	Stage-I line & 13	32 kV NEHU-May	wlai line were kep	t open for system	requirement).	At 08:47 Hrs	s on 19.04.16, 1	32 kV Khlie	V Panchgram-Lu hriat (PG)-Khlieh generation misma	riat (MePTCI	
	Antecedent Conditions of NER Grid			Generation : 1269									
	Root Cause	seems because of	of lightning.	-							stream of Khliehri		
	Remedial Measures		r earthing has to b								ce to be checked a with POWERGR		
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat(ME)	DP, ZI, R-Y-B No tripping	Not Furnished Not Furnished	No No	No No	Loss of Load:		4/21/2016 22:48	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	4/21/2016 22:01	Khliehriat (PG) Khliehriat (ME)	DP, ZI, R-Y-B		No No	No No	31	GD-I	4/21/2016 23:30	No SPS	0.009
	Leshka U 1	MePGCL		Leshka	Over Frequency		No	No			4/21/2016 22:10	No SPS	0.007
	Leshka U 2	MePGCL	1	Leshka	Voltage control Over Current	Not applicable	No	No	Loss of Generation:		4/21/2016 22:29	No SPS	
	Leshka U 3	MePGCL	1	Leshka	Over Frequency	Not applicable	No	No	124		Shutdown taken	No SPS	
	FIR by the constituent	Yes	•	•					<u>n</u>		•		
106	Brief Description of the Incident	for system requi	irement). At 22:0		,132 kV Khliehria	at (PG)-Khliehriat					cV Panchgram-Lu e elements, Khleil		

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	ज/ Antecedent G	Generation : 1734	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 1638 N	4W)					
	Root Cause	seems because of	of lightning.	ya system,132 kV									
	Remedial Measures	•	r earthing has to b	aya substations to l be done by MePTC	-	-	-			•			
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat(ME)	DP, ZI, R-Y-E No tripping	Not Furnished Not Furnished	No No	No No			4/23/2016 10:26	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL		Khliehriat (PG) Khliehriat(ME)	DP, ZI, R-Y-E		No No	No No			4/23/2016 10:36	No SPS	
	132 kV NEIGRIHMS - Khliehriat (ME)	MePTCL		NEIGRIHMS Khliehriat	Earth Fault	Not applicable Not applicable	No No	No No	Loss of Load: 32		4/23/2016 10:18	No SPS	
	132 kV Lumshnong - Khliehriat(ME)	MePTCL	4/23/2016 10:07	Lumshnong Khliehriat		Not applicable Not applicable	No No	No No	52	GD-I	4/23/2016 10:32	No SPS	0.002
	132 kV Mustem-Khliehriat	MePTCL		Mustem Khliehriat	Not Furnished	Not applicable Not applicable	No No	No No			4/23/2016 10:31	No SPS	
	132 kV Mustem-NEHU	MePTCL		Mustem NEHU	Not Furnished DP, ZI, R-Y-B		No No	No No			4/23/2016 10:11	No SPS	
107	Leshka U 2	MePGCL		Leshka	Over Frequency	Not applicable	No	No	Loss of Generation: 42		4/23/2016 11:21	No SPS	
	FIR by the constituent	Yes											
	Brief Description of the Incident	Byrnihat (132 k NEIGRIHMS -	V Panchgram-Lu Khliehriat (ME)	s connected with re mnsnong line kept line, 132 kV Muste ly collapsed due to	open for system r m-Khliehriat line	equirement). At 2 & 132 kV Muste	10:07 Hrs on 2	23.04.16 ,132	kV Khliehriat	(PG)-Khlieh	riat (MePTCL) I &	t II lines,132	kV
	Antecedent Conditions of NER Grid			Generation : 1291									
1	Root Cause	Due to fault in M	Meghalaya system	n,132 kV Khliehria	at (PG) - Khliehria	t (ME) I&II lines	tripped due to	o non clearan	ce of fault at do	wnstream of	Khliehriat (ME).		

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)		प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Remedial Measures		earthing has to b	aya substations to be done by MePTC									
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat(ME)	DP, ZI, R-Y-B No tripping	Not Furnished Not Furnished	No No	No No			4/23/2016 15:33	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL		Khliehriat (PG) Khliehriat(ME)			No No	No No	Loss of Load: 23		4/23/2016 15:34	No SPS	0.005
	132 kV NEHU - NEIGRIHMS	MePTCL	4/23/2016 15:03	NEHU NEIGRIHMS	Earth Fault Not Furnished	Not applicable Not applicable	No No	No No	25	GD-I	4/23/2016 15:10	No SPS	
	132 kV Mustem-NEHU	MePTCL		Mustem NEHU		Not Furnished Not Furnished	No No	No No			4/23/2016 15:06	No SPS	
	Leshka U 2	MePGCL		Leshka	Over Frequency	Not applicable	No	No	Loss of Generation: 42		4/23/2016 15:41	No SPS	
108	FIR by the constituent	Yes			•				•		•		
	Brief Description of the Incident	Byrnihat (132 k)	V Panchgram-Lu & 132 kV Muste	s connected with r mnsnong line kept em-NEHU line tri	t open for system i	requirement). At	15:03 Hrs on 2	23.04.16 ,132	kV Khliehriat	(PG)-Khliehi	riat (MePTCL) I &	II lines,132	kV NEHU
	Antecedent Conditions of NER Grid			Generation : 1319	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	.oad : 1427 N	1W)					
	Root Cause	Due to lighning seems because o	υ.	ya system,132 kV	Khliehriat (PG) -	Khliehriat (ME) l	&II lines tripp	ped due to not	n clearance of f	ault at downs	stream of Khliehri	at (ME).R-Y-	-B fault
	Remedial Measures	•	earthing has to b	aya substations to be done by MePTC	•	-	-		•	•			
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat(ME)	DP, ZI, B-E No tripping	Not Furnished Not Furnished	No No	No No	Loss of Load:		4/23/2016 23:06	No SPS	
	132 kV Khliehriat (PG) -	MePTCL	4/23/2016 22:05	Khliehriat (PG)	DP, ZI, B-E	Not Furnished	No	No	20	GD-I	4/23/2016 23:07	No SPS	0.001
	Khliehriat (ME) II			Khliehriat(ME)	No tripping	Not Furnished	No	No				110 51 5	

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Leshka U 2	MePGCL		Leshka	Over Frequency	Not applicable	No	No	Generation:		4/23/2016 22:44	No SPS	
	FIR by the constituent	Yes						-	-				
109	Brief Description of the Incident	NEHU- NEIGR	HMS line & 132	kV NEHU-Muste	est of NER Grid tl em line kept open at area was separa	for system require	ement). At 22	:05 Hrs on 23	3.04.16, 132 kV	Khliehriat (I	PG)-Khliehriat (M		
	Antecedent Conditions of NER Grid	I(Ydd cdl 3cyligal Antecedent Generation : 1335 MW, Ydd cdl als/ Antecedent Load : 1497 MW)											
	Root Cause	Due to fault in N	leghalaya system	n,132 kV Khliehria	at (PG) - Khliehria	tt (ME) I&II lines	tripped due to	o non clearan	ce of fault at do	wnstream of	Khliehriat (ME).		
	Remedial Measures	•	earthing has to b	•	be completed as so CL.Relay settings o	-	-		•	•			
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG)	DP, ZI, B-E	Not Furnished	No	No	Loss of Load:		4/24/2016 9:17	No SPS	
				Khliehriat(ME)	No tripping	Not Furnished	No	No	22				
	132 kV Khliehriat (PG) -	MePTCL	4/24/2016 0:07	Khliehriat (PG)	DP, ZI, B-E	Not Furnished	No	No		GD-I	4/04/0016 0.00		
	Khliehriat (ME) II			Khliehriat(ME)	No tripping	Not Furnished					4/24/2016 9:22	No SPS	0.002
							No	No	I C		4/24/2016 9:22	No SPS	0.002
	Leshka U 2	MePGCL		Leshka	Over Frequency		No No	No No	Loss of Generation: 42		4/24/2016 9:22	No SPS No SPS	0.002
	Leshka U 2 FIR by the constituent	MePGCL Yes		Leshka	Over Frequency				Generation:				0.002
110		Yes Khliehriat area o NEHU- NEIGR	HMS line & 132	s connected with r kV NEHU-Musta	Over Frequency est of NER Grid tl em line kept open at area was separa	Not applicable nrough 132 kV Ki for system require	No hliehriat (PG) ement). At 00	No -Khliehriat (N :07 Hrs on 24	Generation: 42 MePTCL) I & II 4.04.16, 132 kV	Khliehriat (I	4/24/2016 1:04 V Panchgram-Lur PG)-Khliehriat (M	No SPS	, 132 kV
110	FIR by the constituent Brief Description of the	Yes Khliehriat area o NEHU- NEIGR tripped. Due to t	IHMS line & 132 ripping of these e	s connected with r 2 kV NEHU-Musta elements, Khleihri	est of NER Grid tl em line kept open	Not applicable nrough 132 kV K for system requir ted from rest of N	No hliehriat (PG) ement). At 00 NER Grid and	No -Khliehriat (N :07 Hrs on 24 subsequently	Generation: 42 MePTCL) I & II 4.04.16, 132 kV	Khliehriat (I	4/24/2016 1:04 V Panchgram-Lur PG)-Khliehriat (M	No SPS	, 132 kV

			List of	Grid Disturba	ances in North	-Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Remedial Measures		earthing has to b	aya substations to be done by MePTC									
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG)		Not Furnished	No No	No No	Loss of Load:		4/24/2016 17:32	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	4/24/2016 17:23	Khliehriat(ME) Khliehriat (PG) Khliehriat(ME)	No tripping DP, ZI, R-Y-B No tripping	Not Furnished Not Furnished Not Furnished	No No No	No No No	59	GD-I	4/24/2016 17:33	No SPS	0.004
	Leshka U 1	MePGCL		Leshka	Over Frequency		No	No	Loss of		4/24/2016 17:47	No SPS	
	Leshka U 2	MePGCL		Leshka	Over Frequency		No	No	Generation:		4/24/2016 17:48	No SPS	
	FIR by the constituent	Yes		Desinta	o ver rrequency	riot applicable	110	110				110 51 5	
111	Brief Description of the Incident Antecedent Conditions of NER Grid	NEHU- NEIGR tripped. Due to t	IHMS line & 132 ripping of these	s connected with r 2 kV NEHU-Muste elements, Khleihri Generation : 1292	em line kept open at area was separa	for system requir ated from rest of N	ement). At 17 NER Grid and	:23 Hrs on 24 subsequently	1.04.16, 132 kV	Khliehriat (l	PG)-Khliehriat (M	U	
1	Root Cause	Due to fault in N	leghalaya system	n,132 kV Khliehria	at (PG) - Khliehria	at (ME) I&II lines	s tripped due t	o non clearan	ce of fault at do	wnstream of	Khliehriat (ME).		
	Remedial Measures	•	earthing has to b	aya substations to be done by MePTC	-	-	-						
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat(ME)	DP, ZI, B-E	Not Furnished Not Furnished	No No	No No			4/25/2016 2:51	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL		Khliehriat (ME) Khliehriat (PG) Khliehriat(ME)	No tripping DP, ZI, B-E No tripping	Not Furnished Not Furnished	No No	No No	Loss of Load:		4/25/2016 2:51	No SPS	
	132 kV NEHU - NEIGRIHMS	MePTCL		NEHU NEIGRIHMS	Earth Fault	Not applicable Not applicable	No No	No No	11		4/25/2016 2:46	No SPS	
	132 kV Mustem-NEHU	MePTCL	4/25/2016 2:31	Mustem NEHU	Not Furnished Earth Fault	Not Furnished Not Furnished	No No	No No		GD-I	4/25/2016 2:40	No SPS	0.002
	Leshka U 1	MePGCL		Leshka	Tripped due to triping of 132	Not applicable	No	No	Loss of		4/25/2016 3:39	No SPS	

			List of	Grid Disturba	ances in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
112	Leshka U 2	MePGCL		Leshka	KV KII(FO)- Khl(ME) I&II lines	Not applicable	No	No	48		4/25/2016 3:43	No SPS	
	FIR by the constituent	Yes								•			
	Brief Description of the Incident	Byrnihat (132 k)	V Panchgram-Lu & 132 kV Muste	mnsnong line kept	est of NER Grid th t open for system 1 pped. Due to tripp	requirement). At (02:31 Hrs on 2	25.04.16 ,132	kV Khliehriat	(PG)-Khliehi	riat (MePTCL) I &	t II lines,132	kV NEHU
	Antecedent Conditions of NER Grid			Generation : 1509	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 1576 N	4W)					
	Root Cause	Due to fault in N	Meghalaya system	1,132 kV Khliehria	at (PG) - Khliehria	t (ME) I&II lines	tripped due t	o non clearan	ce of fault at do	wnstream of	Khliehriat (ME).		
	Remedial Measures	•	r earthing has to b	•	be completed as se CL.Relay settings of	-	-		•				
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat(ME)	DP, ZI, Y-E No tripping	Not Furnished Not Furnished	No No	No No	-		4/27/2016 8:59	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL		Khliehriat (PG) Khliehriat(ME)	DP, ZI, Y-E No tripping	Not Furnished Not Furnished	No No	No No	Loss of Load:		4/27/2016 9:00	No SPS	
	132 kV NEHU - NEIGRIHMS	MePTCL	4/27/2016 8:24	NEHU NEIGRIHMS	Earth Fault	Not applicable Not applicable	No No	No No	21	GD-I	4/27/2016 8:32	No SPS	0.003
	132 kV Mustem-NEHU	MePTCL		Mustem NEHU		Not applicable Not applicable	No No	No No			4/27/2016 8:31	No SPS	
113	Leshka U 2	MePGCL		Leshka	Voltage Control Overcurrent	Not applicable	No	No	Loss of Generation: 42		4/27/2016 8:47	No SPS	
	FIR by the constituent	Yes	-	-	•	•	-	-		_	-	•	
	Brief Description of the Incident	Byrnihat (132 k)	V Panchgram-Lu & 132 kV Muste	mnsnong line kep	est of NER Grid th t open for system to pped. Due to tripp	requirement). At (08:24 Hrs on 2	27.04.16 ,132	kV Khliehriat	(PG)-Khliehi	riat (MePTCL) I &	t II lines,132	kV NEHU
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent G	Generation : 1345	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 1496 N	4W)					

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Root Cause	Due to fault in N	Aeghalaya system	n,132 kV Khliehria	at (PG) - Khliehria	at (ME) I&II lines	tripped due to	o non clearan	ce of fault at do	wnstream of	Khliehriat (ME).		
	Remedial Measures		earthing has to b								ce to be checked as with POWERGRI		
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG)	DP, ZI, Y-E	Not Furnished	No	No			4/27/2016 21:58	No SPS	
	122 by Khlishrigt (DC)			Khliehriat(ME)	No tripping	Not Furnished	No No	No No	4				
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL		Khliehriat (PG) Khliehriat(ME)	DP, ZI, Y-E No tripping	Not Furnished Not Furnished	No	No	-		4/27/2016 22:03	No SPS	
	132 kV NEHU - NEIGRIHMS	MePTCL		NEHU	Distance Backup protection	Not applicable	No	No	Loss of Load: 69		4/27/2016 21:13	No SPS	
				NEIGRIHMS	Not Furnished	Not applicable	No	No	1				
	132 kV Mustem-NEHU	MePTCL	4/27/2016 21:06	Mustem NEHU	Not Furnished General Trip	Not Furnished Not Furnished	No No	No No			4/27/2016 21:12	No SPS	0.002
	132 kV Umiam St I –		4/27/2010 21:00	Umiam Stg I	Tripped	Not applicable	No	No	4	GD-I			0.002
	Umiam St II	MePTCL		Umiam Stg II	Over current	Not applicable	No	No	1		4/27/2016 21:12	No SPS	
	Leshka U 2	MePGCL		Leshka	Voltage Control Overcurrent	Not applicable	No	No			4/27/2016 23:32	No SPS	
	Umiam Stg I U 3	MePGCL		Umiam Stg I	Generator Overcurrent	Not applicable	No	No	Loss of Generation:		4/27/2016 21:15	No SPS	
114	Umiam Stg I U 4	MePGCL		Umiam Stg I	Generator Overcurrent	Not applicable	No	No	98		4/27/2016 21:20	No SPS	
	Umiam Stg II U 1	MePGCL		Umiam Stg II	Isolated	Not applicable	No	No	1		4/27/2016 21:12	No SPS	
	Umiam Stg III U 2	MePGCL		Umiam Stg III	Isolated	Not applicable	No	No			4/27/2016 21:12	No SPS	
	FIR by the constituent	Yes											
	Brief Description of the Incident	Byrnihat (132 k' Umiam St II lind 132 kV Mustem	V Panchgram-Lu e. At 21:06 Hrs o -NEHU line trip	mnsnong line kept n 27.04.16 ,132 k	t open for system in V Khliehriat (PG)- ng of these elemer	requirement).Umi Khliehriat (MeP nts, Khleihriat are	um Stage II H FCL) I & II lir a was separate	Power Station nes,132 kV N	was connected EHU - NEIGR	with rest of IHMS line, 1	x 160 MVA, 220/1 NER Grid through 32 kV Umiam St I ly collapsed due to	n 132 kV Um – Umiam S	iam St I − t II line &

			List of	Grid Disturba	ances in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent G	Generation : 1396	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	.oad : 1867 N	/IW)					
	Root Cause	Due to fault in N	/leghalaya system	n,132 kV Khliehria	at (PG) - Khliehria	nt (ME) I&II lines	tripped due to	o non clearan	ce of fault at do	ownstream of	Khliehriat (ME).		
	Remedial Measures		earthing has to b		be completed as so CL.Relay settings o								
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG)	DP, ZI, R-B-E		No No	No No			4/28/2016 0:27	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL		Khliehriat(ME) Khliehriat (PG) Khliehriat(ME)	No tripping DP, ZI, R-B-E No tripping	Not Furnished Not Furnished Not Furnished	No No	No No	Loss of Load:		4/28/2016 0:28	No SPS	
	132 kV NEHU - NEIGRIHMS	MePTCL	4/28/2016 0:02	NEHU NEIGRIHMS		Not applicable Not applicable	No No	No No	38		4/28/2016 0:06	No SPS	0.002
	132 kV Mustem-NEHU	MePTCL		Mustem NEHU	No tripping General Trip	Not Furnished Not Furnished	No No	No No			4/28/2016 0:08	No SPS	
115	Leshka U 2	MePGCL		Leshka	Over Frequency	Not applicable	No	No	Loss of Generation: 42		4/28/2016 0:32	No SPS	
	FIR by the constituent	Yes	_		<u>8</u>		B		<u>8</u>				
	Brief Description of the Incident	Byrnihat (132 k)	V Panchgram-Lui & 132 kV Muste	mnsnong line kep	est of NER Grid t t open for system 1 pped. Due to tripp	requirement). At (00:02 Hrs on 2	28.04.16 ,132	kV Khliehriat	(PG)-Khlieh	riat (MePTCL) I &	t II lines,132	kV NEHU
	Antecedent Conditions of NER Grid	-			MW , पूर्ववृत्ता लो								
	Root Cause		<u> </u>		at (PG) - Khliehria		11						
	Remedial Measures		earthing has to b		be completed as so CL.Relay settings o								
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG)	DP, ZI, Y-B-E	Not Furnished	No	No			4/28/2016 22:09	No SPS	

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Kintenitat (WIE) I			Khliehriat(ME)	No tripping	Not Furnished	No	No					
	132 kV Khliehriat (PG) -	MePTCL		Khliehriat (PG)	, ,	Not Furnished	No	No	Loss of Load:		4/28/2016 22:10	No SPS	
	Khliehriat (ME) II	Mer ICL		Khliehriat(ME)		Not Furnished	No	No	12		4/28/2010 22.10	10 31 3	
	132 kV NEIGRIHMS -	MePTCL	4/28/2016 21:36	NEIGRIHMS		Not applicable	No	No	12	GD-I	4/28/2016 21:45	No SPS	0.001
	Khliehriat (ME)	Mer rel		Khliehriat		Not applicable	No	No		021	1/20/2010 21:15	110 51 5	0.001
	132 kV Mustem-NEHU	MePTCL		Mustem		Not Furnished	No	No			4/28/2016 21:40	No SPS	
				NEHU	General Trip	Not Furnished	No	No					
	Leshka U 2	MePGCL		Leshka	Over Frequency	Not applicable	No	No	Loss of Generation: 42		4/28/2016 22:25	No SPS	
116	FIR by the constituent	Yes					-						
	Brief Description of the Incident	Byrnihat (132 k Khliehriat (MeP	V Panchgram-Lu: TCL) - NEIGRIF	s connected with r mnsnong line kept HMS & 132 kV M ad generation misn	t open for system 1 Iustem-NEHU line	requirement). At 2	21:36 Hrs on 2	28.04.16 ,132	kV Khliehriat	(PG)-Khliehi	iat (MePTCL) I &	II lines,132	
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 1228	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 1469 N	IW)					
	Root Cause	Due to fault in N	Meghalaya system	n,132 kV Khliehria	at (PG) - Khliehria	nt (ME) I&II lines	tripped due t	o non clearan	ce of fault at do	wnstream of	Khliehriat (ME).		
	Remedial Measures		r earthing has to b	aya substations to be done by MePTC									
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG)	DP, ZI, R-E	Not Furnished	No	No			4/30/2016 23:13	No SPS	
	132 kV Khliehriat (PG) -		4	Khliehriat(ME)	No tripping	Not Furnished Not Furnished	No No	No No	4				
	Khliehriat (ME) II	MePTCL		Khliehriat (PG) Khliehriat(ME)	DP, ZI, R-E No tripping	Not Furnished	No No	No No	Loss of Load:		4/30/2016 23:13	No SPS	
	132 kV NEIGRIHMS -		4	NEIGRIHMS	DP, ZI, R-Y-B		No	No No	52				
	132 KV NEIGRIHMS - Khliehriat (ME)	MePTCL	4/30/2016 22:07	Khliehriat		Not Furnished	No No	No No	1	GD-I	4/30/2016 22:13	No SPS	0.009
	Kiniciiilät (ME)	}	4	Mustem		Not Furnished	No	No	1				
	132 kV Mustem-Khliehriat	MePTCL		wiustein	DI, LI, K-I-D	IL NOL FUI HISHCU							
	152 KV Wiusteni-Kintennat	WEI ICL		Khliehriat	DP, ZI, R-Y-B		No	No			4/30/2016 22:15	No SPS	

			List of	Grid Disturba	ances in North	Eastern Regio	onal Grid d	luring Janu	uarv 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Leshka U 2	MePGCL		Leshka	Over Frequency	Not applicable	No	No	Loss of Generation: 42		5/1/2016 1:09	No SPS	
117	FIR by the constituent	Yes	•	-	-	•	-		-		•		·
11/	Brief Description of the Incident	Byrnihat (132 k) Khliehriat (MeP	V Panchgram-Lu TCL) - NEIGRIH	mnsnong line kep	est of NER Grid t t open for system 1 Justem-Khliehriat natch	requirement). At 2	22:07 Hrs on	30.04.16 ,132	kV Khliehriat	(PG)-Khliehi	riat (MePTCL) I &	II lines,132	kV
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 1000	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 1339 N	MW)					
	Root Cause	Due to fault in N	Meghalaya system	n,132 kV Khliehria	at (PG) - Khliehria	tt (ME) I&II lines	tripped due t	o non clearan	ce of fault at do	ownstream of	Khliehriat (ME).		
	Remedial Measures		earthing has to b		be completed as so CL.Relay settings of								
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID	4/19/2016 4:00	Khliehriat (PG)	DP, ZI, R-Y-B		No	No	Loss of Load: 9	GD-I	4/19/2016 4:35	No SPS	0.001
		Vas		Khliehriat(ME)	No tripping	Not Furnished	No	No					
	FIR by the constituent	Yes Khliohriot araa c	of Maghelove	a annoted with -	est of NER Grid th	rough 120 LV V	hlighrigt (DC)	Khlighnigt (MODTCL) L 1:) (12) LV D.	naharam I umr	ongling 122	1.V
	Brief Description of the Incident	NEHU-Umiam l 03:40 Hrs on 19	line & 132 kV NI .04.16). At 04:00	EHU-Mawlai line Hrs on 19.04.16,	were kept open fo 132 kV Khliehria o no source in this	r system requiren t (PG)-Khliehriat	nent and 132	kV Khliehriat	t (PG)-Khliehri	at (MePTCL)	II line was not re	stored after t	ripping at
118	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 1380) MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 1231 N	AW)					
	Root Cause	Due to lighning seems because o		ya system,132 kV	Khliehriat (PG) -	Khliehriat (ME) l	&II lines trip	ped due to no	n clearance of f	ault at downs	stream of Khliehri	at (ME).R-Y-	B fault
	Remedial Measures	•	earthing has to b	•	be completed as so CL.Relay settings of	-	-			•			

			List of	Grid Disturba	ances in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Khliehriat (PG) -	POWERGRID	4/23/2016 17:07	Khliehriat (PG)	DP, ZI, R-B-E	Not Furnished	No	No	Loss of	GD-I	4/23/2016 18:21	No SPS	0.009
	Khliehriat (ME) I			Khliehriat(ME)	No tripping	Not Furnished	No	No	Load: 9				
	FIR by the constituent	Yes	•	· · · · ·			•	•	•	•	•		••
	Brief Description of the Incident	NEIGRIHMS li on 23.04.16). At	ine & 132 kV NE t 17:07 Hrs on 23	HU-Mustem line	est of NER Grid t were kept open fo hliehriat (PG)-Khl n this area.	r system requiren	ent,132 kV K	Chliehriat (PG) - Khliehriat (1	ME) II line w	as not restored aft	er tripping at	16:19 Hrs
119	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 1278	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	.oad : 1569 M	/IW)					
	Root Cause	Due to fault in I	Meghalaya syster	n,132 kV Khliehri	iat (PG) - Khliehri	at (ME) I&II line	s tripped due t	to non clearar	nce of fault at d	ownstream of	f Khliehriat (ME).		
	Remedial Measures	~	earthing has to b	•	be completed as so CL.Relay settings of	-	-						
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat(ME)	DP, ZI, B-E No tripping	Not Furnished Not Furnished	No No	No No	Loss of Load:		4/24/2016 9:17	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	4/24/2016 13:28	Khliehriat (PG) Khliehriat(ME)	DP, ZI, B-E No tripping	Not Furnished Not Furnished	No No	No No	9	GD-I	4/24/2016 9:22	No SPS	0.002
	FIR by the constituent	Yes											
120	Brief Description of the Incident	Byrnihat (132 k)	V Panchgram-Lu IGRIHMS & 132	mnsnong line kep	est of NER Grid th ot open for system HU line tripped. D	requirement). At	13:28 Hrs on	23.04.16 ,132	2 kV Khliehriat	(PG)-Khlieh	riat (MePTCL) I &	& II lines,132	kV
120	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 1208	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	.oad : 1355 N	/IW)					
	Root Cause	Due to fault in N	Meghalaya system	n,132 kV Khliehri	at (PG) - Khliehria	tt (ME) I&II lines	tripped due to	o non clearan	ce of fault at do	wnstream of	Khliehriat (ME).		

			List of	Grid Disturba	nces in North	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Remedial Measures		r earthing has to b	aya substations to l be done by MePTC									
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat(ME)	DP, ZI, R-Y-B No tripping	Not Furnished Not Furnished	No No	No No			5/1/2016 22:15	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL		Khliehriat (PG) Khliehriat(ME)	<u> </u>	Not Furnished Not Furnished	No No	No No	Loss of Load:		5/1/2016 22:27	No SPS	
	132 kV NEHU - NEIGRIHMS	MePTCL	5/1/2016 21:42	NEHU	General Trip	Not applicable Not applicable	No No	No No	12	GD-I	5/1/2016 21:51	No SPS	0.002
	132 kV Mustem-NEHU	MePTCL		Mustem NEHU		Not Furnished Not Furnished	No No	No No		OD I	5/1/2016 21:51	No SPS	0.002
121	Leshka U 2	MePGCL		Leshka	Over Frequency		No	No	Loss of Generation: 42		5/1/2016 22:17	No SPS	
	FIR by the constituent	Yes	•			8			•	8	•		
	Incident	Byrnihat (132 k	V Panchgram-Lu & 132 kV Muste	s connected with r mnsnong line kept em-NEHU line trij	open for system	requirement). At 2	21:42 Hrs on	01.05.16 ,132	kV Khliehriat	(PG)-Khlieh	riat (MePTCL) I &	II lines,132	kV NEHU
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent G	Generation : 1164	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 1842 N	IW)					
	Root Cause	Non availability	of Main protecti	on for all the conn	ected elements at	132 kV Khliehria	t (MeECL) su	ub station					
	Remedial Measures	Station earthing	at Khliehriat (Me	eECL) sub station	to be rectified and	l all Main Protect	ive relays to b	e put into ser	vice.				
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat(ME)	DP, ZI, Y-E No tripping	Not Furnished Not Furnished	No No	No No			5/1/2016 23:21	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL		Khliehriat (PG) Khliehriat(ME)	Earth Fault No tripping	Not applicable Not applicable	No No	No No	Loss of Load:		5/1/2016 23:21	No SPS	
	132 kV NEIGRIHMS - Khliehriat (ME)	MePTCL	5/1/2016 22:48	NEIGRIHMS	Not Furnished General Trip	Not Furnished Not Furnished	No No	No No	20	GD-I	5/1/2016 23:15	No SPS	0.0006
	132 kV Mustem-Khliehriat	MePTCL		Mustem Khliehriat	Not Furnished Earth Fault	Not Furnished Not Furnished	No No	No No		_	5/1/2016 22:50	No SPS	

			List of	Grid Disturba	nces in North	Eastern Regio	nal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
122	Leshka U 2	MePGCL		Leshka	Overcurrent	Not applicable	No	No	Loss of Generation: 42		5/1/2016 23:35	No SPS	
	FIR by the constituent	Yes			-				•	-	•		
	Brief Description of the Incident	Byrnihat (132 k ^v Khliehriat (MeP	V Panchgram-Lui TCL) - NEIGRIH	mnsnong line kep	est of NER Grid t t open for system 1 fustem-Khliehriat natch.	requirement). At 2	2:48 Hrs on (01.05.16 ,132	kV Khliehriat	(PG)-Khliehi	riat (MePTCL) I &	II lines,132	kV
	Antecedent Conditions of NER Grid				MW , पूर्ववृत्ता ल								
	Root Cause	Non availability	of Main protection	on for all the conn	ected elements at	132 kV Khliehria	t (MeECL) su	b station					
	Remedial Measures	Station earthing	at Khliehriat (Me	ECL) sub station	to be rectified and	all Main Protect	ve relays to b	e put into ser	vice.				
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat(ME)	, ,	Not Furnished Not Furnished	No No	No No	Loss of Load:		5/2/2016 13:19	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	5/2/2016 13:07	Khliehriat (PG) Khliehriat(ME)	DP, ZI, Y-B-E No tripping		No No	No No	21	GD-I	5/2/2016 13:22	No SPS	0.001
	Leshka U 2	MePGCL	5/2/2010 15.07	Leshka	Over Frequency		No	No	Loss of Generation: 42	00-1	5/2/2016 13:18	No SPS	0.001
	FIR by the constituent	Yes									•		
123	Brief Description of the Incident	Khliehriat-NEIC	GRIHMS line & 1	32 kV Khliehriat	est of NER Grid tl -Mustem line wer Khleihriat area wa	e kept open for sy	stem requiren	nent). At 13:0	07 Hrs on 02.05	.16 ,132 kV	Khliehriat (PG)-K	hliehriat (Me	
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Seneration : 1277	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	.oad : 1193 N	fW)					
	Root Cause	Non availability	of Main protection	on for all the conn	ected elements at	132 kV Khliehria	t (MeECL) su	b station					
	Remedial Measures	•		ECL) sub station be done for tower f	to be rectified and footing also.	l all Main Protect	ve relays to b	e put into ser	vice. After that	, tower footir	ng resistance to be	checked and	if greater
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	DP, ZI, R-Y-B	Not Furnished	No	No			5/5/2016 10:11	No SPS	

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janu	arv 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Khliehriat (PG) -	MePTCL	5/5/2016 10:00	Khliehriat (PG)	DP, ZI, R-Y-B	Not Furnished	No	No	31	GD-I	5/5/2016 10:13	No SPS	0.004
	Khliehriat (ME) II		0,0,2010 10000	Khliehriat(ME)	No tripping	Not Furnished	No	No					
	Leshka U 1	MePGCL		Leshka	Tripped due to	Not applicable	No	No	Loss of		5/5/2016 12:30	No SPS	
	Leshka U 2 FIR by the constituent	MePGCL Yes		Leshka	evacuation	Not applicable	No	No	Generation:		5/5/2016 10:42	No SPS	
124	Brief Description of the Incident Antecedent Conditions of NER Grid	tripped. Due to t	tripping of these of	elements, Khleihri	ai line were kept og at area was separa MW , पूर्ववृत्ता ल	ted from rest of N	NER Grid and	subsequently				(MePTCL) I	& II lines
	Restoration Details												
	Root Cause	Non availability	of Main protection	on for all the conn	ected elements at	132 kV Khliehria	nt (MeECL) su	h station					
	Remedial Measures	Station earthing	at Khliehriat (Me	ECL) sub station be done for tower f	to be rectified and footing also.	l all Main Protect			vice. After that	, tower footir	ng resistance to be	checked and	if greater
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat(ME)	DP, ZI, R-Y-B No tripping	Not Furnished Not Furnished	No No	No No			5/10/2016 18:35	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	5/10/2016 18:20	Khliehriat (PG) Khliehriat(ME)	DP, ZI, R-Y-B No tripping	Not Furnished Not Furnished	No No	No No			5/10/2016 18:37	No SPS	
	132 kV Mustem-NEHU	MePTCL		Mustem NEHU	No tripping General Trip	Not Furnished Not Furnished	No No	No No	Loss of Load: 42		5/10/2016 18:24	No SPS	0.005
	132 kV NEHU - NEIGRIHMS	MePTCL	5/10/2016 18:20	NEHU	Distance Backup protection	Not Furnished	No	No	72	GD-I	5/10/2016 18:27	No SPS	
				NEIGRIHMS	No tripping	Not Furnished	No	No		ļ			
	Leshka U 1	MePGCL		Leshka		Not applicable	No	No	Loss of		5/10/2016 18:43	No SPS	0.079
125	Leshka U 2	MePGCL		Leshka	evacuation	Not applicable	No	No	Generation:		5/10/2016 19:19	No SPS	
	FIR by the constituent Brief Description of the Incident	Byrnihat (132 k) 10.05.16 ,132 k)	V Panchgram-Lui V Khliehriat (PG)	mnsnong line,132)-Khliehriat (MeP	est of NER Grid tl kV Sarusajai-Um TCL) I & II lines, J id and subsequent	tru I&II lines and 32 kV NEHU - 1	132 kV Kahil NEIGRIHMS	lipara-Umtru & 132 kV M	I&II lines kept lustem-NEHU l	open for syst	em requirement).	At 18:20 Hrs	on

			List of	Grid Disturba	nces in North	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent (Generation : 1619	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 2162 N	IW)					
	Restoration Details												
	Root Cause			on for all the conn									
	Remedial Measures			eECL) sub station be done for tower f		l all Main Protect	ive relays to b	e put into ser	vice. After that	, tower footir	ng resistance to be	checked and	if greater
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	DP, ZI, R-Y-B	Not applicable	No	No			5/11/2016 10:13	No SPS	
	Khliehriat (ME) I	TOWERORID		Khliehriat(ME)	No tripping	Not applicable	Yes	Yes			5/11/2010 10.15	10 51 5	
	132 kV Khliehriat (PG) -	MePTCL		Khliehriat (PG)	DP, ZI, R-Y-B	**	No	No			5/11/2016 10:14	No SPS	
	Khliehriat (ME) II	Mer ren		Khliehriat(ME)		Not applicable	No	No			5/11/2010 10:11	110 51 5	
			5/11/2016 9:53	Mustem	No tripping	Not Furnished	No	No	Loss of Load:	GD-I			0.007
	132 kV Mustem-NEHU	MePTCL		NEHU	Distance Backup protection	Not Furnished	No	No	65		5/11/2016 13:50	No SPS	
	132 kV NEHU -	MePTCL		NEHU	General Trip	Not Furnished	No	No			5/11/2016 10:10	No SPS	
	NEIGRIHMS	MePICL		NEIGRIHMS	No tripping	Not Furnished	No	No			5/11/2016 10:10	NO SPS	
126	FIR by the constituent	Yes											
	Brief Description of the Incident	Byrnihat (132 k ^v ,132 kV Khliehr	V Khliehriat-Lun iat (PG)-Khliehr	s connected with r nnsnong line,132 l iat (MePTCL) I & Grid and subseque	kV Sarusajai-Umti II lines,132 kV N	ru I&II lines and 1 EHU - NEIGRIH	132 kV Kahili MS & 132 kV	para-Umtru I	&II lines kept o	pen for syste	em requirement). A	At 09:53 Hrs	on 11.05.16
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 1441	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 1591 N	1W)					
	Restoration Details												
	Root Cause	Non availability	of Main protecti	on for all the conn	ected elements at	132 kV Khliehria	t (MeECL) su	b station					
	Remedial Measures	0		eECL) sub station be done for tower f		l all Main Protect	ive relays to b	e put into ser	vice. After that,	, tower footir	ng resistance to be	checked and	if greater
	132 kV Khliehriat (PG) -	DOWEDODID		Khliehriat (PG)	DP, ZI, Y-B-E	Not Furnished	No	No			5/11/2016 12:05		
	Khliehriat (ME) I	POWERGRID		Khliehriat(ME)	No tripping	Not Furnished	No	No			5/11/2016 12:05		
	132 kV Khliehriat (PG) -	MePTCL		Khliehriat (PG)	DP, ZI, Y-B-E	Not Furnished	No	No			5/11/2016 12:06		
	Khliehriat (ME) II	MEPICL		Khliehriat(ME)	No tripping	Not Furnished	No	No	Loss of Load:		5/11/2016 12:06		0.005

			List of	Grid Disturba	mees m rorm.		Jilai Griu u	ui mg Janu	iai y 2010				
क्रम सं छया/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV NEIGRIHMS - Khliehriat (ME)	MePTCL	5/11/2016 11:48	NEIGRIHMS	Distance Backup protection	Not Furnished	No	No	61	GD-I	5/11/2016 11:55	No SPS	0.005
				Khliehriat	No tripping	Not Furnished	No	No					
	Umiam Stg III U 2	MePGCL		Umiam Stg III	Over Frequency	Not applicable	No	No	Loss of		5/11/2016 12:14	No SPS	0.018
	Umiam Stg IV U 1	MePGCL		Umiam Stg IV	Over Frequency	Not applicable	No	No	Generation:		5/11/2016 12:10	No SPS	0.018
127	FIR by the constituent	Yes	-							-	-		
	Brief Description of the	$\mathbf{n} \mathbf{v} \mathbf{v} \mathbf{n} \mathbf{n} \mathbf{v} \mathbf{n} \mathbf{n} \mathbf{n} \mathbf{n} \mathbf{n} \mathbf{n} \mathbf{n} n$	v AIIICHHAI-LUII				і 17 КУ К ИШШ	vara-Umuu I				LJZ K V IVIUSI	
	Antecedent Conditions of NER Grid	line was under e NEIGRIHMS tr	emergency shutdo ripped. Due to trij	pping of these eler	rs on 11.05.16). A	t 11:48 Hrs on 11 area was separate	.05.16 ,132 k ^v d from rest of	V Khliehriat (NER Grid an	(PG)-Khliehriat	(MePTCL) I	& II lines & 132 l e to no source in t	kV Khliehria	
	Incident Antecedent Conditions	line was under e NEIGRIHMS tr	emergency shutdo ripped. Due to trij	wn from 10:00 Hi pping of these eler	rs on 11.05.16). A ments, Khleihriat	t 11:48 Hrs on 11 area was separate	.05.16 ,132 k ^v d from rest of	V Khliehriat (NER Grid an	(PG)-Khliehriat	(MePTCL) I	& II lines & 132 l	kV Khliehria	
	Incident Antecedent Conditions of NER Grid	line was under e NEIGRIHMS t (पूर्ववृत्ता उत्पाद	emergency shutdo ripped. Due to trij जि/ Antecedent G	wn from 10:00 Hi pping of these elec ceneration : 1447	rs on 11.05.16). A ments, Khleihriat	t 11:48 Hrs on 11 area was separate गेड/ Antecedent I	.05.16 ,132 k [*] d from rest of Load : 1646 M	V Khliehriat (NER Grid an IW)	(PG)-Khliehriat	(MePTCL) I	& II lines & 132 l	kV Khliehria	
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures	line was under e NEIGRIHMS t (पूर्ववृत्ता उत्पाद Non availability Station earthing	emergency shutdo ripped. Due to trij जि/ Antecedent G 7 of Main protectio	wn from 10:00 Hi pping of these elec- ceneration : 1447 on for all the conn EECL) sub station e done for tower f	rs on 11.05.16). A ments, Khleihriat a MW, पूर्ववृत्ता ल ected elements at to be rectified and footing also.	t 11:48 Hrs on 11 area was separate ns/ Antecedent I 132 kV Khliehria 1 all Main Protect	.05.16 ,132 k ¹ d from rest of Load : 1646 M nt (MeECL) su	V Khliehriat (NER Grid an IW) Ib station	(PG)-Khliehriat Id subsequently	(MePTCL) I collapsed du	& II lines & 132 l	kV Khliehria his area.	ıt -
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause	line was under e NEIGRIHMS t (पूर्ववृत्ता उत्पाद Non availability Station earthing than 10 ohm, pr	amergency shutdo ripped. Due to trip and Antecedent G of Main protection at Khliehriat (Me oper earthing to b	wn from 10:00 Hi pping of these elec- ceneration : 1447 on for all the conne ECL) sub station e done for tower f Khliehriat (PG)	s on 11.05.16). A ments, Khleihriat a MW, पूर्ववृत्ता ल ected elements at to be rectified and footing also. DP, ZI, R-Y-B	t 11:48 Hrs on 11 area was separate ns/Antecedent I 132 kV Khliehria d all Main Protect Not applicable	.05.16 ,132 k ¹ d from rest of Load : 1646 M nt (MeECL) su	V Khliehriat (NER Grid an IW) Ib station	(PG)-Khliehriat Id subsequently	(MePTCL) I collapsed du	t & II lines & 132 l e to no source in t	kV Khliehria his area. checked and	ıt -
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Khliehriat (PG) - Khliehriat (ME) I	line was under e NEIGRIHMS t (पूर्ववृत्ता उत्पाद Non availability Station earthing than 10 ohm, pr	emergency shutdo ripped. Due to trij जि/ Antecedent G / of Main protectio ; at Khliehriat (Me	wn from 10:00 Hi pping of these elec- ceneration : 1447 on for all the com- ECL) sub station e done for tower f Khliehriat (PG) Khliehriat(ME)	s on 11.05.16). A ments, Khleihriat a MW, पूर्ववृत्ता ल ected elements at to be rectified and footing also. DP, ZI, R-Y-B No tripping	t 11:48 Hrs on 11 area was separate ns/ Antecedent I 132 kV Khliehria d all Main Protect Not applicable Not applicable	.05.16 ,132 k ³ d from rest of Load : 1646 M at (MeECL) su ive relays to b <u>No</u> No	V Khliehriat (NER Grid an IW) b station be put into ser <u>No</u> No	(PG)-Khliehriat Id subsequently	(MePTCL) I collapsed du	& II lines & 132 l	kV Khliehria his area. checked and	ıt -
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Khliehriat (PG) - Khliehriat (ME) I 132 kV Khliehriat (PG) -	line was under e NEIGRIHMS ti (पूर्ववृत्ता उत्पाद Non availability Station earthing than 10 ohm, pr POWERGRID	emergency shutdo ripped. Due to trip (Antecedent G of Main protection at Khliehriat (Me oper earthing to b 5/12/2016 14:56	wn from 10:00 Hi pping of these elec- ceneration : 1447 on for all the com- ECL) sub station e done for tower f Khliehriat (PG) Khliehriat (PG)	s on 11.05.16). A ments, Khleihriat a MW, पूर्ववृत्ता ल ected elements at to be rectified and footing also. DP, ZI, R-Y-B No tripping DP, ZI, R-Y-B	t 11:48 Hrs on 11 area was separate 13 / Antecedent I 132 kV Khliehria 1 all Main Protect Not applicable Not applicable Not applicable	.05.16 ,132 k ¹ d from rest of Load : 1646 M at (MeECL) su ive relays to b No No No	V Khliehriat (NER Grid an IW) b station be put into ser <u>No</u> No No	PG)-Khliehriat ad subsequently vice. After that	(MePTCL) I collapsed du	 a II lines & 132 line	kV Khliehria his area. checked and No SPS	ıt -
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No SPS</td><td>if greater</td></tr><tr><td>128</td><td>Incident
Antecedent Conditions
of NER Grid
Restoration Details
Root Cause
Remedial Measures
132 kV Khliehriat (PG) -
Khliehriat (ME) I
132 kV Khliehriat (PG) -
Khliehriat (ME) II
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DP, ZI, R-Y-B
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PG)-Khliehriat</td><td>(MePTCL) I
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128	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Khliehriat (PG) - Khliehriat (ME) I 132 kV Khliehriat (PG) - Khliehriat (ME) II 132 kV NEHU - NEIGRIHMS FIR by the constituent Brief Description of the	line was under e NEIGRIHMS tr (पूर्ववृ त्ला उत्पाद Non availability Station earthing than 10 ohm, pr POWERGRID MePTCL MePTCL Yes Khliehriat area o Byrnihat (132 k line was under e NEIGRIHMS tr	emergency shutdo ripped. Due to trip ar/ Antecedent G of Main protection at Khliehriat (Me oper earthing to b 5/12/2016 14:56 5/12/2016 14:53 5/12/2016 14:56 of Meghalaya was V Khliehriat-Lum emergency shutdo ripped. Due to trip	wn from 10:00 Hi pping of these eler eneration : 1447 on for all the com- ECL) sub station e done for tower f Khliehriat (PG) Khliehriat (PG) Khliehriat (ME) Khliehriat (ME) NEHU NEIGRIHMS s connected with r insnong line, 132 H wn from 10:00 Hi pping of these eler	s on 11.05.16). A ments, Khleihriat a MW, पूर्ववृत्ता ल ected elements at to be rectified and footing also. DP, ZI, R-Y-B No tripping DP, ZI, R-Y-B No tripping Distance Backup protection No tripping est of NER Grid th cV Sarusajai-Umtr s on 11.05.16). A	t 11:48 Hrs on 11 area was separate 137 / Antecedent I 132 kV Khliehria d all Main Protect Not applicable Not applicable Not applicable Not applicable Not Furnished Not Furnished hrough 132 kV K ru I&II lines and 1 t 14:56 Hrs on 12 area was separate	.05.16 ,132 k ³ d from rest of Load : 1646 M at (MeECL) su ive relays to b No No No No No hliehriat (PG) 132 kV Kahili .05.16 ,132 k ³ d from rest of	V Khliehriat (NER Grid an IW) b station e put into ser No No No No No -Khliehriat (N para-Umtru I V Khliehriat (NER Grid an	PG)-Khliehriat d subsequently vice. After that Loss of Load: 42 MePTCL) I & II &II lines kept o PG)-Khliehriat	(MePTCL) I collapsed du , tower footir GD-I [lines and 2 : pen for syste (MePTCL) I	a & II lines & 132 I e to no source in t ng resistance to be 5/12/2016 17:48 5/12/2016 17:49 5/12/2016 15:02 x 160 MVA, 220/1 m requirement & 1 x II lines & 132 I	kV Khliehria his area. checked and No SPS No SPS No SPS 32 kV ICT I 132 kV Must kV NEHU -	if greater 0.003 &II at

			List of	f Grid Disturba	ances in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Root Cause	Non availability	of Main protecti	ion for all the conr	nected elements at	132 kV Khliehria	nt (MeECL) su	b station					
	Remedial Measures	U	· · · ·	eECL) sub station		l all Main Protect	ive relays to b	e put into ser	vice. After that	, tower footir	ng resistance to be	checked and	if greater
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	DP, ZI, R-E	Not Furnished	No	No			5/15/2016 21:00	No SPS	
	Khliehriat (ME) I	TOWERORID		Khliehriat(ME)	No tripping	Not Furnished	No	No			5/15/2010 21:00	10 31 5	
	132 kV Khliehriat (PG) -	MePTCL		Khliehriat (PG)	DP, ZI, R-E	Not Furnished	No	No			5/15/2016 21:01	No SPS	
	Khliehriat (ME) II	Mei TCE		Khliehriat(ME)	No tripping	Not Furnished	No	No	Loss of Load:		5/15/2010 21:01	110 51 5	0.003
	132 kV Mustem-Khliehriat	MePTCL	5/15/2016 20:38	Mustem	No tripping	Not Furnished	No	No	32	GD-I	5/15/2016 21:40	No SPS	0.005
	152 KV Wastelli Killeliitat	Mer Tel	0/10/2010 20:00	Khliehriat	General Trip	Not Furnished	No	No		OD I	5/15/2010 21.40	110 51 5	
	132 kV NEIGRIHMS -	MePTCL		NEIGRIHMS	Earth Fault	Not Furnished	No	No			5/15/2016 20:40	No SPS	
	Khliehriat (ME)	Mer rel		Khliehriat	No tripping	Not Furnished	No	No				110 51 5	
	Leshka U 1	MePGCL		Leshka	Over Frequency	Not applicable	No	No	Loss of		5/15/2016 21:01	No SPS	0.038
	Leshka U 2	MePGCL		Leshka	over riequency	Not applicable	No	No	Generation:		5/15/2016 21:01	No SPS	0.050
129	FIR by the constituent	Yes											
	Incident	Byrnihat (132 k ,132 kV Khliehi	V Khliehriat-Lun riat (PG)-Khliehr	s connected with r nnsnong line,132 l iat (MePTCL) I & om rest of NER Gr	kV Sarusajai-Umti II lines132 kV M	u I&II lines and a ustem-Khliehriat	132 kV Kahili & 132 kV NI	para-Umtru I EIGRIHMS -	&II lines kept o Khliehriat (ME	pen for syste	m requirement). A	at 20:38 Hrs	on 15.05.16
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	ज़/ Antecedent G	Generation : 1836	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 1859 N	4W)					
	Restoration Details												
	Root Cause		*	ion for all the conr									
	Remedial Measures	U	· · · ·	eECL) sub station		all Main Protect	ive relays to b	e put into ser	vice. After that	, tower footir	ng resistance to be	checked and	if greater
		than 10 ohm, pr	oper earthing to b	be done for tower	, j	1	1	T		1	•		T
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG)	DP, ZI, R-Y- E,16 Kms.	Not Furnished	No	No			5/16/2016 5:14	No SPS	
			4	Khliehriat(ME)	No tripping	Not Furnished	No	No	ł				
		I		Khliehriat (PG)	DP, ZI, R-Y-B-	Not Furnished	No	No			5/16/2016 5:14	N. CDC	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL		. ,	E,9.6 Kms.	N . F					5/10/2010 5.14	No SPS	
		MePTCL		Khliehriat(ME)	E,9.6 Kms. No tripping N Phase, Master	Not Furnished	No	No	Loss of Load: 22		5/10/2010 5.14	NO SPS	0.002

			List of	Grid Disturba	nces in North	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
				NEHU	No tripping	Not Furnished	No	No					
	132 kV NEIGRIHMS -	MePTCL		NEIGRIHMS	Earth Fault	Not Furnished	No	No			5/16/2016 3:55	No SPS	
	Khliehriat (ME)	MEPICL		Khliehriat	No tripping	Not Furnished	No	No			3/10/2010 5:55	NO SPS	
130	Leshka U 1	MePGCL		Leshka	Tripped due to	Not applicable	No	No	Loss of		5/16/2016 5:56	No SPS	
150	AGBPP U 3	NEEPCO		AGBPP	evacuation	Not applicable			Generation:		5/19/2016 18:08		0.176
	Leshka U 2	MePGCL		Leshka	problem(Relay	Not applicable	No	No	84		5/16/2016 6:47	No SPS	
	FIR by the constituent	Yes									x 160 MVA, 220/1		
	Brief Description of the Incident Antecedent Conditions of NER Grid	16.05.16 ,132 k elements, Khleil	V Khliehriat (PG) hriat area was sep		TCL) I & II lines, f NER Grid and s	132 kV Mustem-Nubsequently colla	NEHU & 132 psed due to lo	kV NEIGRI ad generatior	HMS - Khliehri		em requirement). tripped. Due to tr		
	Restoration Details												
	Root Cause	Non availability	of Main protection	on for all the conn	ected elements at	132 kV Khliehria	at (MeECL) su	b station					
	Remedial Measures			ECL) sub station be done for tower t	footing also.	l all Main Protect	ive relays to b	e put into ser	vice. After that	, tower footir	ng resistance to be	checked and	if greater
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	5/16/2016 15:28	Khliehriat (PG)	DP, ZI, R-Y- E,11.43 Kms.	Not Furnished	Yes	No	-		5/16/2016 16:19	No SPS	
				Khliehriat(ME)	No tripping DP, ZI, R-Y-	Not Furnished	No	No	1				0.006
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG) Khliehriat(ME)	E,15.95 Kms. No tripping	Not Furnished Not Furnished	Yes No	No No	Loss of Load: 8 & Loss of	GD-I	5/16/2016 16:18	No SPS	
	Leshka U 2	MePGCL	5/16/2016 15:31	Leshka	Tripped due to evacuation problem(86A, 86B, 86FT operated)	Not applicable	No	No	Generation: 41		5/16/2016 15:40	No SPS	0.006
131	FIR by the constituent	Yes	1		operated)	1		1	I	1	8		
	r in by the constituent		of Meghalaya was	s connected with r	est of NER Grid t	hrough 132 kV K	hliehriat (PG)	-Khliehriat ()	MePTCL) Lline	(132 kV Kh	liehriat (PG)-Khli	ehriat (MePT	CL) II line
	Brief Description of the Incident	tripped at 15:28 At 15:31 Hrs on	Hrs on 16.05.16, 16.05.16 ,132 kV	132 kV Panchgra	m-Lumnsnong lin Khliehriat (MePT	e & 132kV Khlie	hriat-Mustem	line and 132	kV NEIGRIHM	IS-Khliehriat	line were under e eparated from rest	mergency shu	utdown).

			List of	Grid Disturba	nces in North	Eastern Regio	onal Grid d	uring Jan	uary 2016				
क्रम सं छया/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	eneration : 1855	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 1331 N	AW)					
	Restoration Details												
	Root Cause	Non availability	of Main protecti	on for all the conn	ected elements at	132 kV Khliehria	t (MeECL) su	ub station					
	Remedial Measures			ECL) sub station be done for tower f		l all Main Protect	ive relays to b	e put into sei	rvice. After that	, tower footii	ng resistance to be	checked and	if greater
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	5/16/2016 17:37	Khliehriat (PG)	DP, ZI, B- E,36.97 Kms.	Not Furnished	Yes	No			5/16/2016 21:35	No SPS	
				Khliehriat(ME)	No tripping	Not Furnished	No	No					
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID	5/16/2016 17:38	Khliehriat (PG)	DP, ZI, B- E,23.48 Kms.	Not Furnished	Yes	No	Loss of Load:		5/16/2016 21:25	No SPS	0.003
				Khliehriat(ME)	No tripping	Not Furnished	No	No	16				4
	132 kV Leshka - Khleihriat (ME) I	MePTCL		Leshka Khliehriat (ME)	DP, ZI, B-E No tripping	Not Furnished Not Furnished	No No	No No	-	GD-I	5/16/2016 17:42	No SPS	
	132 kV Leshka -			Leshka	DP, ZI, B-E	Not Furnished	No	No					1
	Khleihriat (ME) II	MePTCL	5/16/2016 17:38	Khliehriat (ME)	No tripping	Not Furnished	No	No			5/16/2016 17:42	No SPS	
	Leshka U 1	MePGCL		Leshka	Tripped due to	Not applicable	No	No	Loss of	1	5/16/2016 17:48	No SPS	
	AGBPP U 3	NEEPCO		AGBPP	evacuation	Not applicable			Generation:		5/19/2016 0:00		0.014
132	Leshka U 2	MePGCL		Leshka	problem(86A,	Not applicable	No	No	84		5/16/2016 17:48	No SPS	1
	FIR by the constituent	Yes				• • •	•	•	-		•		
	Brief Description of the Incident	tripped at 17:37 At 17:38 Hrs on	Hrs on 16.05.16, 16.05.16 ,132 k	132 kV Panchgra	m-Lumnsnong lin Khliehriat (MePT	e & 132kV Khlie CL) I line,132 kV	hriat-Mustem / Leshka - Kh	line and 132 leihriat (ME)	kV NEIGRIHM I&II lines tripp	IS-Khliehria	liehriat (PG)-Khlid t line were under e ipping of these ele	mergency sh	utdown).
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	eneration : 1863	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 1574 N	MW)					
	Restoration Details												
	Root Cause	Non availability	of Main protecti	on for all the conn	ected elements at	132 kV Khliehria	t (MeECL) su	ub station					
	Remedial Measures	U		ECL) sub station be done for tower f		l all Main Protect	ive relays to b	e put into sei	rvice. After that	, tower footii	ng resistance to be	checked and	if greater
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG)	DP, ZI, B-E,21 Kms.	Not Furnished	No	No			5/16/2016 23:17	No SPS	
	KIIIICIIIIat (IVIE) I		5/16/2016 22:02	Khliehriat(ME)	No tripping	Not Furnished	No	No	J				J

			List of	Grid Disturba	ances in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Khliehriat (PG) -	MePTCL	5/10/2010 22.02	Khliehriat (PG)	DP, ZI, B-E,14 Kms.	Not Furnished	No	No			5/16/2016 23:20	No SPS	
	Khliehriat (ME) II			Khliehriat(ME)	No tripping	Not Furnished	No	No	Loss of Load: 10				0.001
				NEHU	Not Furnished	Not Furnished	No	No	10	GD-I			
	132 kV NEHU - NEIGRIHMS	MePTCL	5/16/2016 22:02	NEIGRIHMS	Distance protection,186A &186B operated	Not Furnished	No	No		UD-1	5/16/2016 22:08	No SPS	
	Leshka U 1	MePGCL		Leshka	Tripped due to	Not applicable	No	No	Loss of		5/16/2016 23:09	No SPS	
133	AGBPP U 3	NEEPCO		AGBPP	evacuation	Not applicable			Generation:		5/19/2016 18:08		0.031
155	Leshka U 2	MePGCL		Leshka	problem(86A,	Not applicable	No	No	48		5/16/2016 23:09	No SPS	
	FIR by the constituent	Yes				**			•				
	i in by the constituent	res											
	Brief Description of the Incident	Khliehriat area o Byrnihat (132 k Kahilipara-Umti Khliehriat (MeP	V Khliehriat (PG) ru I&II lines kept TCL) I&II lines a)-Khliehriat (MeP open for system r	est of NER Grid tl TCL) II line trippe equirement & 132 J - NEIGRIHMS 1 natch.	ed at 17:37 Hrs or kV Khliehriat-M	n 16.05.16, 13 ustem line wa	2 kV Panchgi s under emerg	ram-Lumnsnon gency shutdowr	g line,132 kV 1). At 22:02 H	′ Sarusajai-Umtru Hrs on 16.05.16 ,1	I&II lines an 32 kV Khlieł	d 132 kV nriat (PG)-
	Brief Description of the	Khliehriat area c Byrnihat (132 k ³ Kahilipara-Umtı Khliehriat (MeP subsequently col	V Khliehriat (PG ru I&II lines kept TCL) I&II lines a llapsed due to loa)-Khliehriat (MeP open for system r and 132 kV NEHU ad generation misr	TCL) II line trippe requirement & 132 J - NEIGRIHMS 1	ed at 17:37 Hrs or kV Khliehriat-M ine tripped. Due t	n 16.05.16, 13 ustem line wa to tripping of	2 kV Panchgr s under emerg these element	ram-Lumnsnon gency shutdowr	g line,132 kV 1). At 22:02 H	′ Sarusajai-Umtru Hrs on 16.05.16 ,1	I&II lines an 32 kV Khlieł	d 132 kV nriat (PG)-
	Brief Description of the Incident Antecedent Conditions	Khliehriat area c Byrnihat (132 k Kahilipara-Umtı Khliehriat (MeP subsequently col (पूर्ववृत्ता उत्पाद	V Khliehriat (PG ru l&II lines kept TCL) I&II lines a llapsed due to loa न/ Antecedent G)-Khliehriat (MeP open for system r and 132 kV NEHU ad generation misr Generation : 1877	TCL) II line trippe requirement & 132 J - NEIGRIHMS 1 natch.	ed at 17:37 Hrs or kV Khliehriat-Mi ine tripped. Due t 15/ Antecedent I	n 16.05.16, 13 ustem line wa to tripping of the tripping of tripping of the tripping of the tripping of the tripping of the tripping of tripping of the tripping of tripping o	2 kV Panchgr s under emerg these element IW)	ram-Lumnsnon gency shutdowr	g line,132 kV 1). At 22:02 H	′ Sarusajai-Umtru Hrs on 16.05.16 ,1	I&II lines an 32 kV Khlieł	d 132 kV nriat (PG)-
	Brief Description of the Incident Antecedent Conditions of NER Grid	Khliehriat area of Byrnihat (132 k ¹ Kahilipara-Umti Khliehriat (MeP subsequently col (पूर्ववृत्ता उत्पाद, Non availability Station earthing	V Khliehriat (PG ru I&II lines kept TCL) I&II lines a llapsed due to loa a / Antecedent G of Main protection at Khliehriat (Ma)-Khliehriat (MeP open for system r and 132 kV NEHU d generation misr Generation : 1877 on for all the conn	TCL) II line trippe requirement & 132 J - NEIGRIHMS I natch. MW, पूर्ववृत्ता लं nected elements at to be rectified and	ed at 17:37 Hrs or kV Khliehriat-M ine tripped. Due t 15/ Antecedent I 132 kV Khliehria	n 16.05.16, 13 ustem line wa to tripping of t Load : 1579 M at (MeECL) su	2 kV Panchgi s under emerg these element IW) ib station	ram-Lumnsnon, gency shutdowr s, Khleihriat ar	g line,132 kV n). At 22:02 H ea was separa	' Sarusajai-Umtru Hrs on 16.05.16 ,1 ated from rest of N	I&II lines an 32 kV Khlieł IER Grid and	d 132 kV nriat (PG)- l
	Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Khliehriat (PG) -	Khliehriat area of Byrnihat (132 k ¹ Kahilipara-Umti Khliehriat (MeP subsequently col (पूर्ववृत्ता उत्पाद, Non availability Station earthing	V Khliehriat (PG ru I&II lines kept TCL) I&II lines a llapsed due to loa a / Antecedent G of Main protection at Khliehriat (Ma)-Khliehriat (MeP open for system r and 132 kV NEHU d generation misr Generation : 1877 on for all the conn eECL) sub station be done for tower f Khliehriat (PG)	TCL) II line trippe equirement & 132 J - NEIGRIHMS I natch. MW , पूर्ववृ त्ता ल nected elements at to be rectified and footing also. DP, ZI, R-B- E,11.6 Kms.	ed at 17:37 Hrs or kV Khliehriat-Mi ine tripped. Due t 13 / Antecedent I 132 kV Khliehria all Main Protect Not Furnished	h 16.05.16, 13 ustem line wa to tripping of the Load : 1579 M at (MeECL) su ive relays to b	2 kV Panchgr s under emerg these element fW) ib station e put into ser No	ram-Lumnsnong gency shutdowr s, Khleihriat ar vice. After that	g line,132 kV n). At 22:02 H ea was separa	' Sarusajai-Umtru Hrs on 16.05.16 ,1 ated from rest of N	I&II lines an 32 kV Khlieł IER Grid and	d 132 kV nriat (PG)- l
	Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures	Khliehriat area c Byrnihat (132 k Kahilipara-Umtı Khliehriat (MeP subsequently col (पूर्ववृ त्ता उत्पाद Non availability Station earthing than 10 ohm, pro	V Khliehriat (PG ru I&II lines kept TCL) I&II lines a llapsed due to loa a / Antecedent G of Main protection at Khliehriat (Ma)-Khliehriat (MeP open for system r and 132 kV NEHU d generation misr Generation : 1877 on for all the conn eECL) sub station be done for tower f	TCL) II line trippe equirement & 132 J - NEIGRIHMS I natch. MW , पूर्वव् त्ता ल nected elements at to be rectified and footing also. DP, ZI, R-B- E,11.6 Kms. No tripping	ed at 17:37 Hrs or kV Khliehriat-Mi ine tripped. Due t 15 / Antecedent I 132 kV Khliehria I all Main Protect	h 16.05.16, 13 ustem line wa to tripping of t Load : 1579 M at (MeECL) su ive relays to b	2 kV Panchgr s under emerg these element IW) ib station e put into ser	ram-Lumnsnon, gency shutdowr s, Khleihriat ar vice. After that	g line,132 kV n). At 22:02 H ea was separa	7 Sarusajai-Umtru Hrs on 16.05.16 ,1 ated from rest of N	I&II lines an 32 kV Khlieł IER Grid and checked and	d 132 kV nriat (PG)- l
	Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Khliehriat (PG) -	Khliehriat area c Byrnihat (132 k Kahilipara-Umtı Khliehriat (MeP subsequently col (पूर्ववृ त्ता उत्पाद Non availability Station earthing than 10 ohm, pro	V Khliehriat (PG ru I&II lines kept TCL) I&II lines a llapsed due to loa a / Antecedent G of Main protection at Khliehriat (Me oper earthing to b)-Khliehriat (MeP open for system r and 132 kV NEHU d generation misr Generation : 1877 on for all the conn eECL) sub station be done for tower f Khliehriat (PG) Khliehriat (PG)	TCL) II line trippe equirement & 132 J - NEIGRIHMS I natch. MW , पूर्ववृ त्ता ल nected elements at to be rectified and footing also. DP, ZI, R-B- E,11.6 Kms. No tripping DP, ZI, R-B-E,7 Kms.	ed at 17:37 Hrs or kV Khliehriat-Mi ine tripped. Due t 15/ Antecedent I 132 kV Khliehria all Main Protect Not Furnished Not Furnished Not Furnished	n 16.05.16, 13 ustem line wa to tripping of the Load : 1579 M at (MeECL) su ive relays to b No No	2 kV Panchgr s under emerg these element IW) ab station be put into ser No No No	ram-Lumnsnong gency shutdowr s, Khleihriat ar vice. After that	g line,132 kV 1). At 22:02 F ea was separa , tower footin	7 Sarusajai-Umtru Hrs on 16.05.16 ,1 ated from rest of N	I&II lines an 32 kV Khlieł IER Grid and checked and	d 132 kV nriat (PG)-
	Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Khliehriat (PG) - Khliehriat (ME) I 132 kV Khliehriat (PG) - Khliehriat (ME) II	Khliehriat area c Byrnihat (132 k Kahilipara-Umti Khliehriat (MeP subsequently col (पूर्ववृत्ता उत्पाद Non availability Station earthing than 10 ohm, pro POWERGRID MePTCL	V Khliehriat (PG ru I&II lines kept TCL) I&II lines a llapsed due to loa a / Antecedent G of Main protection at Khliehriat (Me oper earthing to b)-Khliehriat (MeP open for system r and 132 kV NEHU d generation misr Generation : 1877 on for all the conne ECL) sub station be done for tower f Khliehriat (PG) Khliehriat (PG) Khliehriat (ME)	TCL) II line trippe equirement & 132 J - NEIGRIHMS 1 natch. MW, पूर्ववृत्ता ल nected elements at to be rectified and footing also. DP, ZI, R-B- E,11.6 Kms. No tripping DP, ZI, R-B-E,7 Kms. No tripping	ed at 17:37 Hrs or kV Khliehriat-Mi ine tripped. Due t 15/ Antecedent I 132 kV Khliehria all Main Protect Not Furnished Not Furnished Not Furnished	n 16.05.16, 13 ustem line wa to tripping of the Load : 1579 M at (MeECL) su ive relays to b No No No	2 kV Panchgr s under emerg these element IW) ab station the put into ser No No No No	ram-Lumnsnon, gency shutdowr s, Khleihriat ar vice. After that Loss of Load: 28	g line,132 kV 1). At 22:02 F ea was separa , tower footin	7 Sarusajai-Umtru Hrs on 16.05.16 ,1 ated from rest of N ng resistance to be 5/17/2016 2:57 5/17/2016 2:59	I&II lines an 32 kV Khlief IER Grid and checked and No SPS No SPS	d 132 kV nriat (PG)-
	Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Khliehriat (PG) - Khliehriat (ME) I 132 kV Khliehriat (PG) - Khliehriat (ME) II Leshka U 1	Khliehriat area of Byrnihat (132 k ¹ Kahilipara-Umtri Khliehriat (MeP subsequently col (पूर्ववृत्ता उत्पाद Non availability Station earthing than 10 ohm, pro POWERGRID MePTCL MePGCL	V Khliehriat (PG ru I&II lines kept TCL) I&II lines a llapsed due to loa a / Antecedent G of Main protection at Khliehriat (Me oper earthing to b 5/17/2016 2:32)-Khliehriat (MeP open for system r and 132 kV NEHU d generation misr Generation : 1877 on for all the conne eECL) sub station be done for tower f Khliehriat (PG) Khliehriat (PG) Khliehriat (ME) Leshka	TCL) II line trippe equirement & 132 J - NEIGRIHMS 1 natch. MW, पूर्ववृत्ता ल nected elements at to be rectified and footing also. DP, ZI, R-B- E,11.6 Kms. No tripping DP, ZI, R-B-E,7 Kms. No tripping Tripped due to	ed at 17:37 Hrs or kV Khliehriat-Mi ine tripped. Due t 15/ Antecedent I 132 kV Khliehria all Main Protect Not Furnished Not Furnished Not Furnished Not Furnished Not Furnished Not Furnished	n 16.05.16, 13 ustem line wa to tripping of the Load : 1579 M at (MeECL) su ive relays to b No No	2 kV Panchgr s under emerg these element IW) ab station be put into ser No No No	ram-Lumnsnon, gency shutdowr s, Khleihriat ar vice. After that Loss of Load: 28 Loss of	g line,132 kV 1). At 22:02 F ea was separa , tower footin	 ⁷ Sarusajai-Umtru Hrs on 16.05.16,1 ated from rest of N ng resistance to be 5/17/2016 2:57 5/17/2016 2:59 5/17/2016 3:25 	I&II lines an 32 kV Khlief IER Grid and checked and No SPS	d 132 kV priat (PG)- if greater 0.012
	Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Khliehriat (PG) - Khliehriat (ME) I 132 kV Khliehriat (PG) - Khliehriat (ME) II Leshka U 1 AGBPP U 3	Khliehriat area of Byrnihat (132 k ¹ Kahilipara-Umti Khliehriat (MeP subsequently col (पूर्ववृत्ता उत्पाद Non availability Station earthing than 10 ohm, pro POWERGRID MePTCL MePGCL NEEPCO	V Khliehriat (PG ru I&II lines kept TCL) I&II lines a llapsed due to loa a / Antecedent G of Main protection at Khliehriat (Me oper earthing to b)-Khliehriat (MeP open for system r and 132 kV NEHU d generation misr Generation : 1877 on for all the conne ECL) sub station be done for tower f Khliehriat (PG) Khliehriat (ME) Khliehriat (ME) Leshka AGBPP	TCL) II line trippe requirement & 132 J - NEIGRIHMS 1 natch. MW, पूर्ववृत्ता ल nected elements at to be rectified and footing also. DP, ZI, R-B- E,11.6 Kms. No tripping DP, ZI, R-B-E,7 Kms. No tripping Tripped due to evacuation	d at 17:37 Hrs or kV Khliehriat-Mi ine tripped. Due t 13/ Antecedent I 132 kV Khliehria all Main Protect Not Furnished Not Furnished Not Furnished Not Furnished Not Furnished Not applicable Not applicable	n 16.05.16, 13 ustem line wa to tripping of t Load : 1579 N at (MeECL) su ive relays to b No No No No	2 kV Panchgr s under emerg these element IW) b station te put into ser No No No No	ram-Lumnsnon, gency shutdowr s, Khleihriat ar vice. After that Loss of Load: 28 Loss of Generation:	g line,132 kV 1). At 22:02 F ea was separa , tower footin	 7 Sarusajai-Umtru Hrs on 16.05.16,1 ated from rest of N ng resistance to be 5/17/2016 2:57 5/17/2016 2:59 5/17/2016 3:25 1/0/1900 0:00 	I&II lines an 32 kV Khliel IER Grid and checked and No SPS No SPS	d 132 kV nriat (PG)-
	Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause Remedial Measures 132 kV Khliehriat (PG) - Khliehriat (ME) I 132 kV Khliehriat (PG) - Khliehriat (ME) II Leshka U 1	Khliehriat area of Byrnihat (132 k ¹ Kahilipara-Umtri Khliehriat (MeP subsequently col (पूर्ववृत्ता उत्पाद Non availability Station earthing than 10 ohm, pro POWERGRID MePTCL MePGCL	V Khliehriat (PG ru I&II lines kept TCL) I&II lines a llapsed due to loa a / Antecedent G of Main protection at Khliehriat (Me oper earthing to b 5/17/2016 2:32)-Khliehriat (MeP open for system r and 132 kV NEHU d generation misr Generation : 1877 on for all the conne eECL) sub station be done for tower f Khliehriat (PG) Khliehriat (PG) Khliehriat (ME) Leshka	TCL) II line trippe equirement & 132 J - NEIGRIHMS 1 natch. MW, पूर्ववृत्ता ल nected elements at to be rectified and footing also. DP, ZI, R-B- E,11.6 Kms. No tripping DP, ZI, R-B-E,7 Kms. No tripping Tripped due to	ed at 17:37 Hrs or kV Khliehriat-Mi ine tripped. Due t 15/ Antecedent I 132 kV Khliehria all Main Protect Not Furnished Not Furnished Not Furnished Not Furnished Not Furnished Not Furnished	n 16.05.16, 13 ustem line wa to tripping of the Load : 1579 M at (MeECL) su ive relays to b No No No	2 kV Panchgr s under emerg these element IW) ab station the put into ser No No No No	ram-Lumnsnon, gency shutdowr s, Khleihriat ar vice. After that Loss of Load: 28 Loss of	g line,132 kV 1). At 22:02 F ea was separa , tower footin	 ⁷ Sarusajai-Umtru Hrs on 16.05.16,1 ated from rest of N ng resistance to be 5/17/2016 2:57 5/17/2016 2:59 5/17/2016 3:25 	I&II lines an 32 kV Khlief IER Grid and checked and No SPS No SPS	d 132 kV priat (PG)- if greater 0.012

			List of	Grid Disturba	ances in North-	Eastern Regio	onal Grid d	uring Janu	uary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Brief Description of the Incident	Sarusajai-Umtru 02:32 Hrs on 17	1 I&II lines, 132 I .05.16 ,132 kV K	kV Kahilipara-Um	est of NER Grid th tru I&II lines ,132 nliehriat (MePTCL natch.	kV Khliehriat-N	EIGRIHMS li	ne & 132 kV	Khliehriat-Mu	stem line we	re kept open for sy	stem require	ment). At
	Antecedent Conditions of NER Grid	1 7	1	0	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	Load : 1186 N	4W)					
	Root Cause	Non availability	of Main protecti	on for all the conr	nected elements at	132 kV Khliehria	at (MeECL) su	b station					
	Remedial Measures	-		eECL) sub station be done for tower t	to be rectified and footing also.	l all Main Protect	ive relays to b	e put into ser	vice. After that	, tower footii	ng resistance to be	checked and	if greater
	132 kV Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG)	DP, ZI, Y-B- E,82.5 Kms.	Not Furnished	No	No	-		6/6/2016 12:04	No SPS	
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL		Khliehriat(ME) Khliehriat (PG)	No tripping DP, ZI, Y-B- E,103.3 Kms.	Not Furnished Not Furnished	No No	No No	Loss of Load:		6/6/2016 12:05	No SPS	0.003
	Kintennat (MIL) II			Khliehriat(ME)	No tripping	Not Furnished	No	No	26				0.005
	132 kV NEHU -	MePTCL	6/6/2016 11:36	NEHU	No tripping	Not Furnished	No	No		GD-I	6/6/2016 11:42	No SPS	
	NEIGRIHMS		0,0,2010 11,00	NEIGRIHMS	Earth Fault	Not Furnished	No	No			0,0,2010 11.12	110 51 5	
	132 kV NEIGRIHMS -	MePTCL		NEIGRIHMS	No tripping	Not Furnished	No	No	4		6/6/2016 11:42	No SPS	
	Khliehriat (ME)			Khliehriat	Earth Fault	Not Furnished	No	No					
135	Leshka U 2	MePGCL		Leshka	86C, 86FT, No other indication available	Not applicable	No	No	Loss of Generation: 35		6/6/2016 11:49	No SPS	0.008
	FIR by the constituent	Yes				•	-						•
	Brief Description of the Incident	Byrnihat (132 k ²) requirement). A	V Khliehriat-Lun At 11:36 Hrs on 0	nnsnong line,132 l 6.06.16 ,132 kV K	rest of NER Grid t kV Nangalbibra-N Khliehriat (PG)-Kh leihriat area was s	ongstoin line,132 liehriat (MePTCI	kV Sarusajai L) I & II lines,	-Umtru I&II 1 132 kV NEI	lines and 132 k GRIHMS - NE	V Kahilipara HU line & 1	-Umtru I&II lines 32 kV NEIGRIHM	kept open foi ⁄IS - Khliehri	r system
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1627	MW, Anteceden	nt Load : 1584 M	W)							
	Root Cause												
	Remedial Measures					1	-		-				
	137 W Khlichrigt (DC)			Khliehriat (PG)	No tripping	Not applicable	No	No	J				

			List of	Grid Disturba	ances in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Khliehriat (ME) I	POWERGRID		Khliehriat(ME)	Master Trip Relay operated	Not applicable	No	No			6/9/2016 1:05	No SPS	
	132 kV Khliehriat (PG) -			Khliehriat (PG)	No tripping	Not applicable	No	No					
	Khliehriat (ME) II	MePTCL	6/9/2016 0:45	Khliehriat(ME)	Over Current,R- Ph	Not applicable	No	No	Loss of Load: 12	GD-I	6/9/2016 1:10	No SPS	0.039
	132 kV Mustem-Khliehriat	MePTCL		Mustem	Tripped	Not applicable	No	No			6/9/2016 1:50	No SPS	
	152 KV Wustern-Kimennat	Mer TCL		Khliehriat	No tripping	Not applicable	No	No			0/9/2010 1.50	10015	
	132 kV NEIGRIHMS -	MePTCL		NEIGRIHMS	Tripped	Not applicable	No	No			6/9/2016 2:00	No SPS	
	Khliehriat (ME)			Khliehriat	No tripping	Not applicable	No	No			0, 7, 2010 2.00		
136	Leshka U 1	MePGCL		Leshka	Over Frequency		No	No	Loss of		6/9/2016 3:53	No SPS	
150	Leshka U 2	MePGCL	6/9/2016 0:45	Leshka	Over Frequency		No	No	Generation:		6/9/2016 2:01	No SPS	0.16
	Leshka U 3 FIR by the constituent	MePGCL Yes		Leshka	Over Frequency	Not applicable	No	No	126		6/9/2016 2:01	No SPS	
	Brief Description of the Incident	Byrnihat (132 k ^v requirement). A	V Khliehriat-Lun at 00:45 Hrs on 09	nnsnong line,132 k 9.06.16 ,132 kV K	est of NER Grid tl «V Nangalbibra-N hliehriat (PG)-Kh at area was separa	ongstoin line,132 liehriat (MePTCI	kV Sarusajai .) I & II lines,	-Umtru I&II I 132 kV Mus	lines and 132 k tem-Khliehriat	V Kahilipara- & 132 kV N	Umtru I&II lines EIGRIHMS - Khl	kept open for	system
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1969	MW , Anteceden	nt Load : 1997 MV	W)							
	Root Cause												
	Remedial Measures												
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	No tripping	Not Furnished	No	No			6/12/2016 12:32	No SPS	
	Khliehriat (ME) I	I C WERGRID		Khliehriat(ME)	No Indication	Not Furnished	No	No	Loss of Load:	GD-I	0, 12, 2010 12.32	110 51 5	0.002
	132 kV Khliehriat (PG) -	MePTCL		Khliehriat (PG)	No tripping	Not Furnished	No	No	59	501	6/12/2016 12:35	No SPS	0.002
	Khliehriat (ME) II		6/12/2016 12:20		Earth Fault	Not Furnished	No	No	ļ				
	Leshka U 1	MePGCL		Leshka		Not applicable	No	No	Loss of		6/12/2016 13:39	No SPS	
	Leshka U 2	MePGCL		Leshka	86ABC, 86FT	Not applicable	No	No	Generation:		6/12/2016 12:42	No SPS	0.046
	Leshka U 3	MePGCL		Leshka		Not applicable	No	No	126		6/12/2016 13:09	No SPS	
137	FIR by the constituent	Yes											
	Brief Description of the Incident	Umiam-Umiam	Stg I line & 132	kV NEHU-Mawla	est of NER Grid tl ai line were kept o at area was separa	pen for system re	quirement). A	t 12:20 Hrs o	n 12.06.16 ,132	kV Khliehri	at (PG)-Khliehria		

			List of	Grid Disturba	nces in North	-Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1819	MW , Anteceden	t Load : 1577 M	W)							
	Root Cause												
	Remedial Measures												
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	DP, ZI, R-Y-B	Not Furnished	No	No			6/26/2016 17:15	No SPS	
	Khliehriat (ME) I	POWERGRID		Khliehriat(ME)	No tripping	Not Furnished	No	No			0/20/2010 17:15	N0 5P5	
	132 kV Khliehriat (PG) -	MePTCL		Khliehriat (PG)	DP, ZI, R-Y-B	Not Furnished	No	No	1		6/26/2016 17:23	No SPS	
	Khliehriat (ME) II	MEPICL		Khliehriat(ME)	No tripping	Not Furnished	No	No			0/20/2010 17:25	NO SPS	
	132 kV Umiam St I - Umiam St III I	MePTCL		Umiam St I	DP, Z-I, Y-E, 13.70 Kms.	Not Furnished	No	No			6/26/2016 16:59	No SPS	
	e initani 5t ili i			Umiam St III	Not Furnished	Not Furnished	No	No					
	132 kV Umiam St I - Umiam St III II	MePTCL	6/26/2016 16:52	Umiam St I	DP, Z-I, Y-E, 15.98 Kms.	Not Furnished	No	No	Loss of Load: 113	GD-I	6/27/2016 16:00	No SPS	0.011
				Umiam St III	Not Furnished	Not Furnished	No	No					
				Mustem	Not Furnished	Not Furnished	No	No					
	132 kV Mustem-Khliehriat	MePTCL		Khliehriat	DP, Z-III, R-Y- B-E, 84.34 Kms.	Not Furnished	No	No			6/26/2016 17:06	No SPS	
	132 kV NEIGRIHMS -	MePTCL		NEIGRIHMS	Earth Fault	Not applicable	No	No			6/26/2016 17:10	No SPS	
	Khliehriat	MePICL		Khliehriat	Not Furnished	Not applicable	No	No			0/20/2010 17:10	NO SPS	
	Umiam Stg I U 2	MePGCL		Umiam Stg I	Generator O/C, Under Voltage 86C.	Not applicable	No	No			6/26/2016 17:10	No SPS	
	Umiam Stg I U 3	MePGCL		Umiam Stg I	Generator O/C, Under Voltage 86C.	Not applicable	No	No			6/26/2016 17:06	No SPS	
138	Umiam Stg I U 4	MePGCL		Umiam Stg I	Generator O/C,	Not applicable	No	No	Loss of		6/26/2016 17:15	No SPS	
	Umiam Stg II U 1	MePGCL	6/26/2016 16:52	Umiam Stg II	MTR, OCR, 51T.	Not applicable	No	No	Generation: 145	GD-I	6/26/2016 17:09	No SPS	0.034
	Umiam Stg II U 2	MePGCL		Umiam Stg II	MTR, OCR, 51T.	Not applicable	No	No			6/26/2016 17:16	No SPS	

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Leshka U 1	MePGCL		Leshka	86A, 86B, 86FT.	Not applicable	No	No			6/26/2016 18:44	No SPS	
	Leshka U 2	MePGCL		Leshka	86A, 86B, 86FT.	Not applicable	No	No			6/26/2016 17:31	No SPS	
	Leshka U 3	MePGCL		Leshka	86A, 86B, 86FT.	Not applicable	No	No			6/26/2016 18:28	No SPS	
	FIR by the constituent	Yes				-			•				
	Rrief Description of the	lines,132 kV Kh kV Nangalbibra Mustem, 132 kV	liehriat (ME) - M -Nongstoin lines / NEIGRIHMS -	nong load, EPIP I lustem, 132 kV N kept open for syst Khliehriat (ME) I s and Mendipathar	EIGRIHMS - Khli em requirement). ine and 132 kV U	iehriat (ME) line At 16:52 Hrs on 2 miam St I - Umia	and 132 kV U 26.06.16,132 k m St III I & II	miam St I - U V Khliehriat lines tripped	Jmiam St III I & (PG) - Khliehr . Due to trippin	& II lines (132 iat (ME) I & g of these ele	2 kV Khliehriat-Lu II lines,132 kV Kl ments, Meghalaya	umnsnong lin hliehriat (ME	e & 132) -
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1915	MW , Anteceden	t Load : 1763 MV	W)							
	Root Cause												
	Remedial Measures												

			List of	Grid Disturba	ances in North-	Eastern Regi	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV EPIP II - Byrnihat I	MePTCL		EPIP II		Not Furnished	No	No			6/12/2016 20:46	No SPS	
	-	Mer ree		Byrnihat	DP, ZI, B-E	Not Furnished	No	No			0/12/2010 20:10	110 51 5	
	132 kV EPIP II - Byrnihat II	MePTCL		EPIP II Byrnihat	Not Furnished DP, ZI, Y-B-E	Not Furnished Not Furnished	No No	No No	Loss of Load:		6/12/2016 20:46	No SPS	
	132 kV NEIGRIHMS -		1	NEIGRIHMS		Not applicable	No	No	112	GD-I		NL GDG	0.011
	Khliehriat (ME)	MePTCL		Khliehriat	Earth Fault	Not applicable	No	No			6/12/2016 14:24	No SPS	
	132 kV Mustem-Khliehriat	MePTCL		Mustem	Not Furnished	Not applicable	No	No			6/12/2016 14:24	No SPS	
				Khliehriat	Over current	Not applicable	No	No					
	Umiam Stg I U 2	MePGCL	6/12/2016 14:19	Umiam Stg I	Generation Over Current	Not applicable	No	No			6/12/2016 14:45	No SPS	
	Umiam Stg I U 3	MePGCL		Umiam Stg I	Generation Over Current	Not applicable	No	No	Loss of		6/12/2016 14:46	No SPS	
139	Umiam Stg II U 1	MePGCL		Umiam Stg II	MTR, OCR, 51T	Not applicable	No	No	Generation: 57		6/12/2016 14:45	No SPS	0.023
	Umiam Stg IV U 2	MePGCL		Umiam Stg IV	ELO, NELO, Negative phase sequence	Not applicable	No	No			6/12/2016 14:43	No SPS	
	FIR by the constituent	Yes	-		-	-	-	-	-	-	-	-	-
	Brief Description of the Incident	Mustem-Khlieh kV Kahilipara-U kV EPIP II - By	riat line and 132 J Jmtru I&II lines F rnihat I&II lines t	kV EPIP II - Byrn kept open for syste ripped. Due to trij	ng area and Mend ihat I&II lines (13) em requirement). A oping of these eler- generation mismat	2 kV Khliehriat-I At 14:19 Hrs on 1 nents, Meghalaya	Lumnsnong lin 12.06.16 ,132	ne,132 kV Na kV NEIGRIH	ngalbibra-Nong IMS - Khliehria	gstoin line,13 at (ME) line,1	2 kV Sarusajai-Ur 132 kV Mustem-K	ntru I&II line hliehriat line	es and 132 and 132
	Antecedent Conditions of NER Grid				nt Load : 1478 MV								
1	Root Cause												
	Remedial Measures												
	132 kV Mustem-NEHU	MePTCL		Mustem	Master Trip Relay Operated	Not Furnished	No	No			6/16/2016 23:06	No SPS	
			J I	NEHU	No tripping	Not Furnished	No	No	J				
	132 kV NEIGRIHMS -	MePTCL		NEIGRIHMS	No tripping	Not Furnished	No	No	1		6/16/2016 23:06	No SPS	
	Khliehriat	Mei Tel		Khliehriat	Earth Fault	Not Furnished	No	No	J		0,10,2010 23.00	10010]]

			List of	Grid Disturba	ances in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV EPIP II - Byrnihat I	MePTCL		EPIP II	Backup Overcurrent Relay Operated	Not Furnished	No	No	Loss of Load: 118	GD-I	6/16/2016 23:08	No SPS	0.004
	132 kV EPIP II - Byrnihat II	MePTCL	6/16/2016 23:04	Byrnihat EPIP II	Not Furnished Backup Overcurrent Relay Operated	Not Furnished Not Furnished	No No	No No			6/16/2016 23:08	No SPS	
	Umiam Stg IV U 1	MePGCL		Byrnihat Umiam Stg IV	Not Furnished O/C, in excitation system, 86FT.	Not Furnished Not applicable	No No	No No			6/16/2016 23:34	No SPS	
140	Umiam Stg IV U 2	MePGCL		Umiam Stg IV	O/C, in excitation system, 86FT.	Not applicable	No	No	Loss of Generation:	GD-I	6/16/2016 23:28	No SPS	0.034
	Umiam Stg I U 2	MePGCL]	Umiam Stg I	Generator O/C, 86ABC.	Not applicable	No	No	84		6/16/2016 23:30	No SPS	
	Umiam Stg I U 3	MePGCL		Umiam Stg I	Generator O/C, 86ABC.	Not applicable	No	No			6/16/2016 23:35	No SPS	
	Umiam Stg II U 1	MePGCL	6/16/2016 23:04	Umiam Stg II	MTR, OCR	Not applicable	No	No			6/16/2016 23:32	No SPS	
1	FIR by the constituent	Yes											
	Brief Description of the Incident	132 kV EPIP II II lines kept ope	- Byrnihat I & II en for system requ ue to tripping of t	lines (132 kV Khl lirement). At 23:04	har area was conne iehriat-Lumnsnon 4 Hrs on 16.06.16, eghalaya system ex	g line,132 kV Na , 132 kV NEIGRI	ngalbibra-Non HMS - Khlieł	ngstoin line, 1 nriat (ME) lin	32 kV Sarusaja e, 132 kV Mus	i-Umtru I & tem-NEHU li	II lines and 132 kV ine and 132 kV EF	V Kahilipara- PIP II - Byrni	-Umtru I & hat I&II
	Antecedent Conditions of NER Grid	(Antecedent G	eneration : 2120	MW , Anteceden	it Load : 1884 MV	W)							
	Root Cause												
	Remedial Measures												

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं ख्या/ Sl. No.	tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator		सीआर ऑपरेटर द्वारा प्रदान की रिले संकेत / Relay indications provided by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 वट फ भीतर डी.आर. पेश किया (हां / नहीं) / DR output	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnished within 24 hours	लाइ आर उत्पादन की हानि) / Effect (Loss of Load &	श्रणा सीईए ग्रिड मानकों के अन्रणप (समय या बहाली / Date and time of restoration provided by	एसपीएस संचालन के विवरण / Details of SPS Operation	in MU

			List of G	rid Disturb	ances in Nor	th-Eastern Re	gional Grie	d during Ja	anuary 2016					
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU	
			1/20/2016 10 20	Agia	Not Furnished	Not Furnished	No	No	Loss of Load:		1/20/2016 10 40	N CDC	0.002	
	132 kV Agia - Medipathar	MePTCL	1/29/2016 18:30	Medipathar	Not Furnished	Not Furnished	No	No	15	GD-I	1/29/2016 18:40	No SPS	0.003	
	FIR by the constituent	No				•	•	•						
141	-		Medipathar areas of Meghalaya were connected with rest of NER Grid through 132 kV Agia - Medipathar line. At 18:30 Hrs on 29.01.2016, 132 kV Agia - e tripped. Due to tripping of this element, Nangalbibra area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.											
	Antecedent Conditions of NER Grid	-												
	Restoration Details	Power extended	to Nangalbibra &	& Medipathar a	reas of Meghal	aya at 18:40 Hrs o	on 29.01.16 th	rough 132 kV	V Agia - Medipa	athar line.				
	Root Cause	Relay flags and	DR outputs to be	submitted by A	Agia(AEGCL)	& Medipathar(Me	PTCL) for an	alysis.						
	Remedial Measures	Measures after i	dentification of r	pot cause of the	e event.									
	132 kV Nangalbibra - Mendipathar	MePTCL	3/30/2016 21:50	Nangalbibra Mendipathar	DP, ZII, R-Y- B No tripping	Not Furnished Not Furnished	No No	No No	Loss of Load: 57	GD-I	3/30/2016 22:18	No SPS	0.026	
	FIR by the constituent	Yes		menupunu	i to uipping		110	110					i I	
142	Brief Description of the Incident	for system requi) Hrs on 30.03	.16, 132 kV Ag	gia - Medipathar l					V Nangalbibra-No a & Mendipathar			
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	eneration : 13	523 MW , पूर्ववृ	त्ता लोड/ Antece	lent Load : 2	267 MW)						
	Restoration Details		to Nangalbibra & were progressive		areas of Megha	llaya at 22:18 Hrs	on 30.03.16 t	hrough 132 k	v Agia - Mend	ipathar line	All outgoing feede	ers from the a	ffected	
	Root Cause	Due to lightning	fault in in the lir	ne or 132 kV A	gia-Mendipatha	ar line,132 kV Na	ngalbibra - M	endipathar lii	ne tripped.R-Y-	B faults seem	ns to be because of	lightning.		
	Remedial Measures	Tower footing a	s well as substati	on earth resista	nce to be check	ed by MePTCL.	In case of freq	uent lightnin	g, arrester has t	o be kept in p	place.			

			List of G	rid Disturb	ances in Nor	th-Eastern Re	gional Grid	l during Jរ	anuary 2016	1		1	
क्रम सं खया/ Sl. No.	tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node		आटा राक्लाजर का ऑपरेशन / Operation of Auto Reclose		output furnished within 24 hours	लाइ आर उत्पादन की हानि) / Effect (Loss of Load &	श्रणा सीईए ग्रिड मानकों के	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU

			List of (Grid Disturb	ances in Noi	rth-Eastern R	egional Gri	d during J	anuary 2016	j			
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Lumshnong -	MePTCL &		Lumshnong		Not applicable	No	No	Loss of Load:				
	Panchgram	AEGCL	3/4/2016 8:04	Panchgram	Earth Fault, Y-ph	Not applicable	No	No	14	GD-I	3/5/2016 23:21	No SPS	0.003
]	FIR by the constituent	No											
143	the Incident	requirement) . A		4.03.16 ,132 kV	Lumshnong -						g - Khliehriat line ea was separated		
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 11	03 MW , पूर्ववृ	त्ता लोड/ Anteceo	lent Load : 1	472 MW)					
	Restoration Details	Power extended	to Lumshnong a	area of Meghala	ya at 08:15 Hrs	s on 04.03.16 thro	ugh 132 kV L	umshnong -	Khlileriat line.				
	Root Cause	Due to vegetatio	on problem in the	line, 132 kV L	umshnong - Par	nchgram line trip	ped.						
	Remedial Measures	Vegetation clear	ance and frequen	t petrolling to b	e done by MeF	TCL & AEGCL.							

			List	Olla Distal	oances in North		0110						
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Aizwal -	POWERCRID	3/31/2016 16:21	Aizawl	Not Furnished	Not Furnished	No	No			3/31/2016 16:59	No SPS	
	Kumarghat	POWERGRID	5/31/2010 10:21	Kumarghat	DP, ZII, Y-E	Not Furnished	No	No			3/31/2010 10:39	N0 5P5	
		DOUTED CD ID		Aizawl	DP, ZI, B-E	Not Furnished	No	No	Loss of Load:	CD I	0/01/0016 10 00	N. CDC	0.020
	132 kV Aizwal - Kolasib	POWERGRID	3/31/2016 16:24	Kolasib	Not Furnished	Not Furnished	No	No	40	GD-I	3/31/2016 18:33	No SPS	0.039
		DOUVED OD ID		Iiriham	Not Furnished	Not Furnished	No	No			2/21/2016 15 00	NL GDG	
	132 kV Jiribam - Aizwal	POWERGRID	3/31/2016 16:26	Aizawl	DP, ZII, B-E	Not Furnished	No	No			3/31/2016 17:09	No SPS	
	FIR by the constituent	No		-	-	=	•		-				
144	Dwief Decemintion of the					2 kV Jiribam - Ai							
144	Brief Description of the Incident Antecedent Conditions of NER Grid	after tripping) subsequently co (पूर्ववृत्ता उत्पाद	At 16:26 Hrs on llapsed due to no न/ Antecedent (31.03.16 ,132 k source in this a Generation : 11	V Jiribam - Aizwa area. 107 MW , पूर्ववृत्त	al line tripped. Du ा लोड/ Anteceden	e to tripping o t Load : 1751	f this elemen			rated from rest of		
144	Incident Antecedent Conditions of	after tripping) subsequently co (पूर्ववृत्ता उत्पाद	At 16:26 Hrs on llapsed due to no न/ Antecedent (31.03.16 ,132 k source in this a Generation : 11	V Jiribam - Aizwa area.	al line tripped. Du ा लोड/ Anteceden	e to tripping o t Load : 1751	f this elemen					
144	Incident Antecedent Conditions of NER Grid	after tripping) subsequently co (पूर्ववृत्ता उत्पाद Power extended	At 16:26 Hrs on llapsed due to no न/ Antecedent (31.03.16 ,132 k source in this a Generation : 11 at 16:59 Hrs on	V Jiribam - Aizwa area. 107 MW , पूर्ववृत्त	al line tripped. Du ा लोड/ Anteceden	e to tripping o t Load : 1751	f this elemen					
144	Incident Antecedent Conditions of NER Grid Restoration Details	after tripping) . subsequently co (पूर्ववृत्ता उत्पाद Power extended Due to lightning	At 16:26 Hrs on llapsed due to no a/ Antecedent (to Aizwal(PG) a g, multiple stroke	31.03.16,132 k source in this a Generation : 11 at 16:59 Hrs on near Aizwal	V Jiribam - Aizwa area. 107 MW , पूर्ववृत्त 31.03.16 through	al line tripped. Du T लोड / Anteceden 132 kV Aizwal - I	e to tripping o t Load : 1751 Kumarghat lin	f this elemen MW) e.	t, Mizoram syst	em was sepa		NER Grid an	
144	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause	after tripping) . subsequently co (पूर्ववृत्ता उत्पाद Power extended Due to lightning Tower footing a	At 16:26 Hrs on llapsed due to no al/ Antecedent (to Aizwal(PG) a g, multiple stroke s well as substati	31.03.16,132 k source in this a Generation : 11 at 16:59 Hrs on near Aizwal	V Jiribam - Aizwa area. 107 MW , पूर्ववृत्त 31.03.16 through	al line tripped. Du T लोड / Anteceden 132 kV Aizwal - I	e to tripping o t Load : 1751 Kumarghat lin	f this elemen MW) e.	t, Mizoram syst	em was sepa	rated from rest of	NER Grid an	
144	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures	after tripping) . subsequently co (पूर्ववृत्ता उत्पाद Power extended Due to lightning	At 16:26 Hrs on llapsed due to no al/ Antecedent (to Aizwal(PG) a g, multiple stroke s well as substati	31.03.16,132 k source in this a Generation : 11 at 16:59 Hrs on near Aizwal ion earth resista	V Jiribam - Aizwa area. 107 MW , पूर्ववृत्त 31.03.16 through nce to be checked	al line tripped. Du ा लोड/ Anteceden 132 kV Aizwal - 1 by POWERGRIE	e to tripping o t Load : 1751 Kumarghat lin 0 & P&ED, M	f this elemen . MW) e. izoram. In ca	t, Mizoram syst	em was sepa	rated from rest of	NER Grid an	
144	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Aizwal - Kumarghat	after tripping) subsequently co (पूर्ववृत्ता उत्पाद Power extended Due to lightning Tower footing a POWERGRID	At 16:26 Hrs on llapsed due to no a/ Antecedent (to Aizwal(PG) a g, multiple stroke s well as substati 4/4/2016 7:14	31.03.16 ,132 k source in this a Generation : 11 at 16:59 Hrs on near Aizwal ion earth resista Aizawl	V Jiribam - Aizwa area. 107 MW , पूर्ववृत्त 31.03.16 through nce to be checked No tripping	al line tripped. Du T लोड/ Anteceden 132 kV Aizwal - I by POWERGRIE Not applicable	e to tripping o t Load : 1751 Kumarghat lin 0 & P&ED, M No	f this elemen MW) e. izoram. In ca No	t, Mizoram syst	em was sepa	ester has to be kept 4/4/2016 7:46	NER Grid an in place. No SPS	
144	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Aizwal -	after tripping)	At 16:26 Hrs on llapsed due to no a/ Antecedent (to Aizwal(PG) a g, multiple stroke s well as substati 4/4/2016 7:14	31.03.16 ,132 k o source in this a Generation : 11 at 16:59 Hrs on near Aizwal ion earth resista Aizawl Kumarghat	V Jiribam - Aizwa area. 107 MW , पूर्ववृत्त 31.03.16 through nce to be checked No tripping DP, ZII, Y-E No tripping	al line tripped. Du T लोड/ Anteceden 132 kV Aizwal - I by POWERGRIE Not applicable Not applicable	e to tripping o t Load : 1751 Kumarghat lin 0 & P&ED, M No Yes	f this elemen MW) e. izoram. In ca No Yes	t, Mizoram syst	em was sepa	rated from rest of	NER Grid an	d
144	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Aizwal - Kumarghat 132 kV Aizwal - Zuangtui	after tripping) subsequently co (पूर्ववृत्ता उत्पाद Power extended Due to lightning Tower footing a POWERGRID POWERGRID	At 16:26 Hrs on Ilapsed due to no a / Antecedent (to Aizwal(PG) a g, multiple stroke s well as substati 4/4/2016 7:14	31.03.16 ,132 k o source in this a Generation : 11 at 16:59 Hrs on near Aizwal ion earth resista Aizawl Kumarghat Aizawl	V Jiribam - Aizwa area. (07 MW , पूर्ववृत्त 31.03.16 through nce to be checked No tripping DP, ZII, Y-E No tripping Not Furnished	al line tripped. Du T लोड/ Anteceden 132 kV Aizwal - I by POWERGRIE Not applicable Not applicable Not applicable	e to tripping o t Load : 1751 Kumarghat lin Ø & P&ED, M No Yes No	f this elemen . MW) e. izoram. In ca <u>No</u> Yes No	t, Mizoram syst	em was sepa	ester has to be kept 4/4/2016 7:46 4/4/2016 7:55	NER Grid an in place. No SPS No SPS	
144	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Aizwal - Kumarghat	after tripping) subsequently co (पूर्ववृत्ता उत्पाद Power extended Due to lightning Tower footing a POWERGRID	At 16:26 Hrs on llapsed due to no a/ Antecedent (to Aizwal(PG) a g, multiple stroke s well as substati 4/4/2016 7:14	31.03.16 ,132 k o source in this a Generation : 11 at 16:59 Hrs on near Aizwal ion earth resista Aizawl Kumarghat Aizawl Zuangtui	V Jiribam - Aizwa area. (07 MW , पूर्ववृत्त 31.03.16 through nce to be checked No tripping DP, ZII, Y-E No tripping Not Furnished	al line tripped. Du T लोड / Anteceden 132 kV Aizwal - I by POWERGRIE Not applicable Not applicable Not applicable Not applicable	e to tripping o t Load : 1751 Kumarghat lin Ø & P&ED, M No Yes No No	f this elemen MW) e. izoram. In ca No Yes No No	t, Mizoram syst	em was sepa	ester has to be kept 4/4/2016 7:46	NER Grid an in place. No SPS	d
144	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Aizwal - Kumarghat 132 kV Aizwal - Zuangtui 132 kV Jiribam - Aizwal	after tripping) subsequently co (पूर्ववृत्ता उत्पाद Power extended Due to lightning Tower footing a POWERGRID POWERGRID	At 16:26 Hrs on llapsed due to no a / Antecedent (to Aizwal(PG) a g, multiple stroke s well as substati 4/4/2016 7:14 4/4/2016 7:14	31.03.16 ,132 k o source in this a Generation : 11 at 16:59 Hrs on near Aizwal ion earth resista Aizawl Kumarghat Aizawl Zuangtui Jiribam	V Jiribam - Aizwa area. 31.03.16 through nce to be checked No tripping DP, ZII, Y-E No tripping Not Furnished DP, ZII, Y-E	al line tripped. Du T लोड / Anteceden 132 kV Aizwal - I by POWERGRIE Not applicable Not applicable Not applicable Not applicable Not applicable	e to tripping o t Load : 1751 Kumarghat lin D & P&ED, M No Yes No No No	f this elemen MW) e. izoram. In ca No Yes No No No	t, Mizoram syst	em was sepa	ester has to be kept 4/4/2016 7:46 4/4/2016 7:55 4/4/2016 7:40	in place. No SPS No SPS No SPS	d
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Aizwal - Kumarghat 132 kV Aizwal - Zuangtui	after tripping) subsequently co (पूर्ववृत्ता उत्पाद Power extended Due to lightning Tower footing a POWERGRID POWERGRID	At 16:26 Hrs on llapsed due to no a / Antecedent (to Aizwal(PG) a g, multiple stroke s well as substati 4/4/2016 7:14 4/4/2016 7:14	31.03.16 ,132 k source in this a Generation : 11 at 16:59 Hrs on near Aizwal ion earth resista Aizawl Kumarghat Aizawl Zuangtui Jiribam Aizawl	V Jiribam - Aizwa area. 31.03.16 through nce to be checked No tripping DP, ZII, Y-E No tripping Not Furnished DP, ZII, Y-E No tripping	al line tripped. Du T लोड/ Anteceden 132 kV Aizwal - 1 by POWERGRIE Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable	e to tripping o t Load : 1751 Kumarghat lin D & P&ED, M No Yes No No No No	f this elemen MW) e. izoram. In ca No Yes No No No No	t, Mizoram syst	em was sepa	ester has to be kept 4/4/2016 7:46 4/4/2016 7:55	NER Grid an in place. No SPS No SPS	d
144	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Aizwal - Kumarghat 132 kV Aizwal - Zuangtui 132 kV Jiribam - Aizwal	after tripping) subsequently co (पूर्ववृत्ता उत्पाद Power extended Due to lightning Tower footing a POWERGRID POWERGRID	At 16:26 Hrs on llapsed due to no a / Antecedent (to Aizwal(PG) a g, multiple stroke s well as substati 4/4/2016 7:14 4/4/2016 7:14	31.03.16 ,132 k source in this a Generation : 11 at 16:59 Hrs on near Aizwal ion earth resista Aizawl Kumarghat Aizawl Zuangtui Jiribam Aizawl Aizawl Aizawl	V Jiribam - Aizwa area. 31.03.16 through nce to be checked No tripping DP, ZII, Y-E No tripping Not Furnished DP, ZII, Y-E No tripping DP, ZI, Y-E	al line tripped. Du T rd s/ Anteceden 132 kV Aizwal - 1 by POWERGRIE Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not Furnished	e to tripping o t Load : 1751 Kumarghat lin O & P&ED, M No Yes No No No No No No	f this elemen MW) e. izoram. In ca No Yes No No No No No	t, Mizoram syst	em was sepa	ester has to be kept 4/4/2016 7:46 4/4/2016 7:55 4/4/2016 7:40	in place. No SPS No SPS No SPS	d
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Aizwal - Kumarghat 132 kV Aizwal - Zuangtui 132 kV Jiribam - Aizwal 132 kV Aizwal - Kolasib	after tripping) subsequently co (पूर्ववृत्ता उत्पाद Power extended Due to lightning Tower footing a POWERGRID POWERGRID POWERGRID POWERGRID No Mizoram systen after tripping). <i>4</i>	At 16:26 Hrs on Ilapsed due to no F / Antecedent (to Aizwal(PG) a g, multiple stroke s well as substati 4/4/2016 7:14 4/4/2016 7:14 4/4/2016 7:14 at /4/2016 7:14 4/4/2016 7:14 4/4/2016 7:14 4/4/2016 7:14 4/4/2016 7:14 At /4/2016	31.03.16 ,132 k source in this a Generation : 11 at 16:59 Hrs on near Aizwal ion earth resista Aizawl Kumarghat Aizawl Zuangtui Jiribam Aizawl Aizawl Kolasib with rest of NE 04.04.16 , 132	V Jiribam - Aizwa area. 107 MW , पूर्वव् त्त 31.03.16 through nce to be checked No tripping DP, ZII, Y-E No tripping Not Furnished DP, ZII, Y-E No tripping DP, ZI, R-E DP, ZI, R-E R Grid through 13	al line tripped. Du Trits/ Anteceden 132 kV Aizwal - 1 by POWERGRIE Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not Furnished Not Furnished Not Furnished 2 kV Aizwal - Ku arghat line & 132	e to tripping of t Load : 1751 Kumarghat lin 0 & P&ED, M No Yes No No No No No No No No No	f this elemen MW) e. izoram. In ca No Yes No No No No No No No No	t, Mizoram syst se of frequent li Loss of Load: 57 ibam - Aizwal l	ightning, arre GD-I ine (132 kV	ester has to be kept 4/4/2016 7:46 4/4/2016 7:55 4/4/2016 7:40	INER Grid an in place. No SPS No SPS No SPS No SPS ine was not r	d 0.036 estored
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Aizwal - Kumarghat 132 kV Aizwal - Zuangtui 132 kV Aizwal - Kolasib FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid	after tripping) subsequently co (q áq cता उत्पाद Power extended Due to lightning Tower footing a POWERGRID POWERGRID POWERGRID POWERGRID No Mizoram system after tripping). A separated from 1 (q áq cता उत्पाद	At 16:26 Hrs on llapsed due to no at Antecedent (to Aizwal(PG) at multiple stroke s well as substati 4/4/2016 7:14 4/4/2016 7:14 4/4/2016 7:14 4/4/2016 7:06 n was connected At 07:14 Hrs on rest of NER Grid at Antecedent (31.03.16 ,132 k source in this a Generation : 11 at 16:59 Hrs on near Aizwal ion earth resista Aizawl Kumarghat Aizawl Jiribam Aizawl Jiribam Aizawl Kolasib with rest of NE 04.04.16 , 132 and subsequen Generation : 11	V Jiribam - Aizwa area. 107 MW , पूर्ववृत्त 31.03.16 through nce to be checked No tripping DP, ZII, Y-E No tripping Not Furnished DP, ZI, R-E DP, ZI, R-E DP, ZI, R-E R Grid through 13 kV Aizwal - Kum tly collapsed due t 133 MW , पूर्ववृत्त	al line tripped. Du T लोड/ Anteceden 132 kV Aizwal - 1 by POWERGRIE Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not purnished Not Furnished 2 kV Aizwal - Ku arghat line & 132 o no source in this T लोड/ Anteceden	e to tripping of t Load : 1751 Kumarghat lin O & P&ED, M No Yes No No No No No No No KV Jiribam - s area. t Load : 2101	f this elemen MW) e. izoram. In ca No Yes No No No No No No So Xo No No No No No No No No No No No No No	t, Mizoram syst se of frequent li Loss of Load: 57 ibam - Aizwal l ripped. Due to t	ghtning, arre GD-I ine (132 kV ripping of the	ester has to be kept 4/4/2016 7:46 4/4/2016 7:55 4/4/2016 7:52 Aizwal - Kolasib I ese elements, Mizo	NER Grid an in place. No SPS No SPS No SPS No SPS ine was not r oram system	d 0.036 estored was
	Incident Antecedent Conditions of NER Grid Restoration Details Root Cause Remedial Measures 132 kV Aizwal - Kumarghat 132 kV Aizwal - Zuangtui 132 kV Aizwal - Kolasib FIR by the constituent Brief Description of the Incident Antecedent Conditions of	after tripping) subsequently co (q áq cता उत्पाद Power extended Due to lightning Tower footing a POWERGRID POWERGRID POWERGRID POWERGRID No Mizoram system after tripping). <i>A</i> separated from 1 (q áq cता उत्पाद The CB for Zua	At 16:26 Hrs on llapsed due to no at Antecedent (to Aizwal(PG) at multiple stroke s well as substati 4/4/2016 7:14 4/4/2016 7:14 4/4/2016 7:14 4/4/2016 7:16 n was connected At 07:14 Hrs on rest of NER Grid at 07 NER Grid at 07 NER Grid at 07 NER Grid	31.03.16 ,132 k source in this a Generation : 11 at 16:59 Hrs on near Aizwal ion earth resista Aizawl Kumarghat Aizawl Jiribam Aizawl Jiribam Aizawl Kolasib with rest of NE 04.04.16 , 132 and subsequen Generation : 11 izawl failed to o	V Jiribam - Aizwa area. 107 MW , पूर्ववृत्त 31.03.16 through nce to be checked No tripping DP, ZII, Y-E No tripping Not Furnished DP, ZI, R-E DP, ZI, R-E DP, ZI, R-E R Grid through 13 kV Aizwal - Kum tly collapsed due t 133 MW , पूर्ववृत्त	al line tripped. Du T लोड/ Anteceden 132 kV Aizwal - 1 by POWERGRIE Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not Furnished Not Furnished 2 kV Aizwal - Ku arghat line & 132 o no source in this T लोड/ Anteceden coil failure during	e to tripping of t Load : 1751 Kumarghat lin D & P&ED, M No Yes No No No No No No No KV Jiribam - s area. t Load : 2101 g downstream	f this elemen MW) e. izoram. In ca No Yes No No No No No So Xo No No So Xo So No No So So No No So So So So So So So So So So So So So	t, Mizoram syst se of frequent li Loss of Load: 57 ibam - Aizwal l ripped. Due to t gtui, which was	ghtning, arre GD-I ine (132 kV ripping of the	rated from rest of ester has to be kept 4/4/2016 7:46 4/4/2016 7:55 4/4/2016 7:52 Aizwal - Kolasib I	NER Grid an in place. No SPS No SPS No SPS No SPS ine was not r oram system	d 0.036 estored was

			List of	Grid Disturb	oances in North	-Eastern Regi	onal Grid o	during Jan	uary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Jiribam - Aizwal	POWERGRID		Jiribam	DP, ZII, B-E	Not applicable	No	No			6/27/2016 16:08	No SPS	
	152 KV JHIOdili 7412wdi	TOWERORED		Aizawl		Not applicable	No	No			0/27/2010 10:00	110 51 5	
	132 kV Aizwal - Kolasib	POWERGRID	6/27/2016 15:36	Aizawl Kolasib	Not Furnished DP, ZII, B-E	Not applicable Not applicable	No No	No No	Loss of Load: 58	GD-I	6/27/2016 16:18	No SPS	0.047
	132 kV Aizwal -			Aizawl	Not Furnished	Not applicable	No	No	58				
	Kumarghat	POWERGRID		Kumarghat	DP, ZII, B-E	Not applicable	No	No			6/27/2016 17:50	No SPS	
	FIR by the constituent	No		8	,								
146	Brief Description of the Incident	27.06.16, 132 k	V Jiribam - Aizw	al line, 132 kV	R Grid through 132 Aizwal - Kolasib I tly collapsed due to	line and 132 kV A	izwal - Kuma						
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : MW	, Antecedent	Load: MW)								
	Root Cause												
	Remedial Measures												
	132 kV Aizwal - Kolasib	POWERGRID	1/0/2016 14 20	Aizawl Kolasib	Earth Fault No tripping	Not Furnished Not Furnished	No No	No No	Loss of Load:		1/9/2016 14:57	No SPS	0.000
	132 kV Badarpur - Kolasib	POWERGRID	1/9/2016 14:20	Badarpur Kolasib	DP, ZIII, R-E No tripping	Not Furnished Not Furnished	No No	No No	10& Loss of Generation: 2	GD-I	1/9/2016 14:50	No SPS	0.006
	FIR by the constituent	No					- 10	- 10	I				
147	Brief Description of the Incident	Badarpur line &		Aizwal line tri	st of NER Grid thr pped. Due to trippi	•	-						
	Antecedent Conditions of NER Grid				80 MW , पूर्ववृत्ता								
	Restoration Details				4:50 Hrs on 09.01			Kolasib line.					
	Root Cause	Fault in 132 kV	Aizwal - Kolasit	line or downst	ream of kolasib du	e to vegetation pr	oblem.						
	Remedial Measures	Vegetation clear Mizoram and PO		by P&E Dept,	Mizoram and POV	VERGRID.Relay	settings of kol	lasib as well a	as Mizoram dov	wnstream stat	tions has to be inv	estigated by l	P&E Dept,

			List of	Grid Disturb	ances in North	-Eastern Regi	onal Grid (during Jan	uary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Aizwal - Zuangtui	POWERGRID	2/24/2016 2:05	Aizawl	General Trip	Not Furnished	No	No	Loss of Load:	GD-I	2/24/2016 11:22	No SPS	0.191
	152 K V Alzwai - Zualigiui	TOWERORID	2/24/2010 2.03	Zuangtui	Not Furnished	Not Furnished	No	No	19	00-1	2/24/2010 11.22	10015	0.171
	FIR by the constituent	No											
	Brief Description of the				est of NER Grid th								Due to
148	Incident	tripping of this e	element, Zuangtu	i area was sepa	rated from rest of N	NER Grid and sub	osequently col	lapsed due to	no source in th	nis area.(Load	loss in MU:0.191)	
110	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Seneration : 11	50 MW , पूर्ववृत्त	। लोड/ Anteceden	t Load : 1348	B MW)					
	Restoration Details		U		11:22 Hrs on 24.0	U		U					
	Root Cause	Due to vegetation	on problem in the	line or in dowr	stream of Mizorar	n system, 132 kV	Aizwal - Zua	ungtui line trij	pped.				
	Remedial Measures	Vegetation clear	ance to be done	by POWERGR	ID and P&ED, Miz	zoram. Relay setti	ngs of Zuangt	tui and downs	stream substatio	ons of Mizora	um to be checked l	oy P&ED, Mi	zoram in
	132 kV Aizwal - Zuangtui	POWERGRID	3/14/2016 12:26	Aizawl Zuangtui	DP, ZII, R-Y-B No tripping	Not Furnished Not Furnished	No No	No No	Loss of Load: 30	GD-I	3/14/2016 13:59	No SPS	0.051
	FIR by the constituent	No											
1.40	Brief Description of the Incident				est of NER Grid th rated from rest of N						Aizawl- Zuangtu	i line tripped.	Due to
149	Antecedent Conditions of NER Grid	-			13 MW , पूर्ववृत्त								
	Restoration Details				13:59 Hrs on 14.0		kV Aizwal - 2	Zuangtui line	•				
	Root Cause	•			angtui line tripped.								
	Remedial Measures	Tower footing a	s well as substati	on earth resista	nce to be checked	by POWERGRID		izoram. In ca	se of frequent l	ightning, arre	ster has to be kep	t in place.	
	132 kV Aizwal - Zuangtui	POWERGRID	3/28/2016 16:06	Aizawl Zuangtui	, ,	Not Furnished Not Furnished	No No	No No	Loss of Load: 46	GD-I	3/28/2016 16:34	No SPS	0.027
	FIR by the constituent	No											
	Brief Description of the	Zuangtui area of	Mizoram was co	onnected with r	est of NER Grid th	rough 132 kV Ai	zawl- Zuangtu	ui line. At 16:	:06 Hrs on 28.0	3.16, 132 kV	Aizawl- Zuangtu	i line tripped.	Due to
	Incident	tripping of this e	element, Zuangtu	i area was sepa	rated from rest of N	NER Grid and sub	sequently col	lapsed due to	no source in th	nis area.			
150	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 13	08 MW , पूर्ववृत्त	। लोड/ Anteceden	t Load : 2090) MW)					
	Restoration Details	Power extended	to Zuangtui area	of Mizoram at	16:34 Hrs on 28.0	3.16 through 132	kV Aizwal - Z	Zuangtui line	•				
	Root Cause	Due to vegetatio	on problem in the	downstream M	lizoram system,132	2 kV Aizwal - Zu	angtui line trij	pped because	of non-clearan	ce of fault wi	thin Mizoram sys	tem.	
	Remedial Measures	•	ance to be done h POWERGRID	•	ID and P&ED, Miz	zoram. Relay setti	ngs of Zuangt	tui and downs	stream substatio	ons of Mizora	um to be checked	oy P&ED, Mi	zoram in

			List of	Grid Disturb	oances in North	n-Eastern Regi	ional Grid	during Jan	uary 2016				
क्रम सं छ्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Aizwal - Zuangtui	POWERGRID	4/5/2016 20.27	Aizawl	DP, ZII, B-E	Not Furnished	No	No	Loss of Load:	GD-I	4/5/2016 20:43	No SPS	0.006
	_		4/5/2010 20.27	Zuangtui	Not Furnished	Not Furnished	No	No	34	OD I	4/5/2010 20.45	110 51 5	0.000
	FIR by the constituent	No	C	. 1 1		1 100 1 17 4	1.7		27.11 05.0	4.1.6. 100.137			D
	Brief Description of the Incident				est of NER Grid th rated from rest of I						Aizawi- Zuangtu	i line tripped.	Due to
151	Antecedent Conditions of				99 MW , पूर्ववृत्त				no source m u	ilo uloui			
	NER Grid	., .											
	Root Cause	Transient lighter	ning fault occure	d in downstrear	n Mizoram system	As a result of no.	n clearance of	fault within	Mizoram syster	n, 132 kV Ai	zwal - Zuangtui li	ne tripped.	
	Remedial Measures				nce to be checked ecked by P&ED, N	•			ase of frequent	lightning, arr	ester has to be kep	ot in place.Re	lay settings
	132 kV Aizwal - Zuangtui	POWERGRID	4/5/2016 21:24	Aizawl Zuangtui		Not Furnished Not Furnished	No No	No No	Loss of Load: 24	GD-I	4/5/2016 22:03	No SPS	0.019
	FIR by the constituent	No											
	Brief Description of the				est of NER Grid th						Aizawl- Zuangtu	i line tripped.	Due to
152	Incident	tripping of this e	element, Zuangtu	ii area was sepa	rated from rest of l	NER Grid and sub	osequently col	lapsed due to	no source in th	nis area.			
152	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent (Generation : 17	'36 MW , पूर्ववृत्त	ा लोड/ Anteceden	t Load : 2194	MW)					
	Root Cause	Transient lighter	ning fault occure	d in downstrear	n Mizoram system	As a result of no.	n clearance of	fault within	Mizoram syster	n, 132 kV Ai	zwal - Zuangtui li	ne tripped.	
	Remedial Measures				nce to be checked ecked by P&ED, N				ase of frequent	lightning, arr	ester has to be kep	ot in place.Re	lay settings
	132 kV Aizwal - Zuangtui	POWERGRID	4/5/2016 22:26	Aizawl Zuangtui		Not Furnished Not Furnished	No No	No No	Loss of Load: 13	GD-I	4/5/2016 23:02	No SPS	0.015
	FIR by the constituent	No		6					8				
	Brief Description of the	Zuangtui area of	f Mizoram was c	onnected with r	est of NER Grid th	nrough 132 kV Ai	zawl- Zuangti	ui line. At 22:	:26 Hrs on 05.0	4.16, 132 kV	Aizawl- Zuangtu	i line tripped.	Due to
153	Incident	tripping of this e	element, Zuangtu	ii area was sepa	rated from rest of l	NER Grid and sub	osequently col	lapsed due to	no source in th	nis area.			
100	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 14	70 MW , पूर्ववृत्त	ा लोड/ Anteceden	t Load : 1917	MW)					
	Root Cause	132 kV Aizwal	- Zuangtui trippo	ed to clear a fau	lt in 33 kV cable a	t state end.							
	Remedial Measures	Relay settings of	f downstream su	bstations of Miz	zoram to be checke	ed by P&ED, Miz	zoram in cons	ultation with	PG.				
	122 kV Aizwel Zuenstui	POWERCEID	4/12/2016 21:54	Aizawl	DP, ZIII, B-E	Not Furnished	No	No	Loss of Load:	CD I	4/12/2016 22:17	No SDS	0.007

			List of	Grid Disturk	oances in North	-Eastern Regi	onal Grid o	during Jan	uary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	152 KV Alzwal - Zualigiui	POWERORID	4/12/2010 21.34	Zuangtui	No tripping	Not Furnished	No	No	16	-UD-1	4/12/2010 22:17	N0 3P3	0.007
	FIR by the constituent	No	-					-	÷		•		
	Brief Description of the Incident				est of NER Grid th rated from rest of 1						Aizawl- Zuangtu	i line tripped.	Due to
154	Antecedent Conditions of NER Grid		-	-)77 MW , पूर्ववृत्त			-					
	Root Cause	Due to vegetation	on problem in the	e downstream M	lizoram system,132	2 kV Aizwal - Zu	angtui line trij	oped because	of non-clearan	ce of fault wi	thin Mizoram sys	em.	
	Remedial Measures		rance to be done h POWERGRID	•	ID and P&ED, Miz	-	ngs of Zuang	tui and downs	stream substatio	ons of Mizora	Im to be checked	oy P&ED, Mi	zoram in
	132 kV Aizwal - Zuangtui	POWERGRID	4/16/2016 5:28	Aizawl Zuangtui	DP, ZII, R-Y-B Not Furnished	Not Furnished Not Furnished	No No	No No	Loss of Load: 25	GD-I	4/16/2016 5:38	No SPS	0.005
	FIR by the constituent	No											
1.5.5	Brief Description of the Incident				est of NER Grid th rated from rest of I						Aizawl- Zuangtu	i line tripped.	Due to
155	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 13	371 MW , पूर्ववृत्त	ा लोड/ Anteceden	t Load : 1868	MW)					
	Root Cause	Due to lightning	in the downstrea	am Mizoram sy	stem,132 kV Aizw	al - Zuangtui line	tripped becau	ise of non-cle	earance of fault	within Mizor	am system.		
	Remedial Measures				stations of Mizoran &ED, Mizoram. In					OWERGRID.	Tower footing as	well as subst	ation earth
	132 kV Aizwal - Zuangtui	POWERGRID	4/25/2016 12:21	Aizawl Zuangtui	DP, ZII, R-E Not Furnished	Not Furnished Not Furnished	No No	No No	Loss of Load: 20	GD-I	4/25/2016 12:32	No SPS	0.008
	FIR by the constituent	No											
156	Brief Description of the Incident				est of NER Grid th rated from rest of I	•	•				Aizawl- Zuangtu	i line tripped.	Due to
	Antecedent Conditions of NER Grid				20 MW , पूर्ववृत्त								
		Due to vegetation	on problem in the	downstream M	lizoram system,132		-	-					
	Root Cause		-										
	Root Cause Remedial Measures		-		ID and P&ED, Miz	zoram. Relay setti		ui and downs	stream substation	ons of Mizora	m to be checked l	oy P&ED, Mi	zoram in
		Vegetation clear	rance to be done		Earth Fault	zoram. Relay setti Not applicable Not applicable	ngs of Zuangt No No	tui and downs No No	stream substation Loss of Load: 48	ons of Mizora GD-I	to be checked 1 5/2/2016 0:14	oy P&ED, Mi No SPS	zoram in 0.177

			List of	Grid Disturk	oances in North	-Eastern Regi	onal Grid (during Jan	uary 2016				
क्रम सं ख्या Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Brief Description of the Incident				est of NER Grid th rated from rest of I						Aizawl- Zuangtu	i line tripped.	Due to
157	Antecedent Conditions of NER Grid	., .			61 MW , पूर्ववृत्त								
	Root Cause	through town (v	iz. No vegetation), likely fault is	or the out going fee in downstream du	e to vegetation a	nd is getting cl	leared at Aiz	wal(PG).		-		-
	Remedial Measures				r the out going fee ance to be done by			ewed and con	mmunicated to	P&ED, Mizo	ram for implemen	tation. Status	to be
	132 kV Aizwal - Zuangtui	POWERGRID	5/2/2016 12:08	Aizawl Zuangtui		Not applicable Not applicable	No No	No No	Loss of Load: 16	GD-I	5/2/2016 14:04	No SPS	0.031
	FIR by the constituent	No							-				
	Brief Description of the Incident				est of NER Grid th rated from rest of I						Aizawl- Zuangtu	i line tripped.	Due to
158	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 13	313 MW , पूर्ववृत्त	ा लोड/ Anteceden	t Load : 1137	' MW)					
	Root Cause				or the out going fee in downstream du					re found to b	e on higher side. S	Since line pas	sess mostly
	Remedial Measures				r the out going fee ance to be done by			ewed and co	mmunicated to 1	P&ED, Mizo	ram for implemen	tation. Status	to be
	132 kV Aizwal - Zuangtui	POWERGRID	5/10/2016 8:40	Aizawl Zuangtui	DP, ZII, B-E No tripping	Not applicable Not applicable	No No	No No	Loss of Load: 32	GD-I	5/10/2016 9:02	No SPS	0.017
	FIR by the constituent	No											
	Brief Description of the Incident				est of NER Grid th rated from rest of I						Aizawl- Zuangtu	i line tripped.	Due to
159	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 14	189 MW , पूर्ववृत्त	। लोड/ Anteceden	t Load : 1579	MW)					

			List of	Grid Disturb	ances in North	-Eastern Regi	onal Grid (during Jan	uary 2016				
क्रम सं छ्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Root Cause				or the out going fee in downstream du					re found to b	e on higher side. S	Since line pas	sess mostly
	Remedial Measures				r the out going feed ance to be done by							tation. Status	to be
	132 kV Aizwal - Zuangtui	POWERGRID	5/25/2016 19:46	Aizawl Zuangtui	R-Y Ph, Over Current No tripping	Not applicable Not applicable	Yes No	No No	Loss of Load: 37	GD-I	5/25/2016 20:54	No SPS	0.047
	FIR by the constituent	No	8	0		11			•		8		
160	Brief Description of the Incident	•			est of NER Grid th rated from rest of N		•				Aizawl- Zuangtu	i line tripped.	Due to
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 19	53 MW , पूर्ववृत्ता	। लोड/ Anteceden	t Load : 1967	' MW)					
	Root Cause			• •	or the out going fee in downstream du	•		-	•	re found to b	e on higher side. S	Since line pas	sess mostly
	Remedial Measures			•	r the out going feed ance to be done by			ewed and cor	mmunicated to l	P&ED, Mizo	ram for implemen	tation. Status	to be
	132 kV Aizwal - Zuangtui	POWERGRID	6/4/2016 18:32	Aizawl	recorded	Not applicable	No	No	Loss of Load: 38	GD-I	6/4/2016 18:56	No SPS	0.019
				Zuangtui	Earth Fault	Not applicable	No	No					
161	FIR by the constituent Brief Description of the Incident				est of NER Grid th rated from rest of N						⁷ Aizawl- Zuangtu	ii line tripped	. Due to
	Antecedent Conditions of NER Grid	** *	- · ·	*	lent Load : 2221 N		- ·						
	Root Cause												
	Remedial Measures												

			List of	Grid Disturb	oances in North	-Eastern Regi	ional Grid o	during Jan	uary 2016				
क्रम सं ख्या/ Sl. No.	tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node		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)	output furnished within 24 hours	लाइ आर उत्पादन की हानि) / Effect (Loss of Load &	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	समय या बहाली / Date and time of restoration provided by	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU

			List of G	rid Disturba	nces in Nor	th-Eastern Re	gional Grid	during Ja	nuary 2016				
क्रम सं छ्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	122 kV Dovona			Doyang	Over current	Not applicable	No	No	Loss of Losd				
	132 kV Doyang - Mokokchung (NA)	DoP Nagaland	1/29/2016 18:28	Mokokchung (NA)	Not Furnished	Not applicable	No	No	Loss of Load: 7	GD-I	1/29/2016 19:05	No SPS	0.002
	FIR by the constituent	No			-	-			-				
162	Brief Description of the Incident	outage,132 kV M	Mokokchung (NA)16,132 kV Doya	A)-Mokokchung	g (PG) I & II lin	nes were not resto	red after trippi	ing & 66 kV	Tuengsang-Lik	mro line kep	t open for system	requirement)	. At 18:28
	Antecedent Conditions of NER Grid					त्ता लोड/ Antece							
	Restoration Details					on 29.01.16 thro							
	Root Cause			in Magaland at	stem cleared at	t Dovang, Phase -	1 C L	ems the only	nossibility if n	o earth fault i	alor operated		
		Downstream ph						come omy	possionity ii ii	o curtin ruurt i	eray operated.		
	Remedial Measures			Nagaland in co	onsultation with	n POWERGRID	& NEEPCO.				elay operated.		
	Remedial Measures 132 kV Doyang - Mokokchung (NA)	Relay coordinat		Nagaland in co Doyang	onsultation with			No No	Loss of Load: 29	GD-I	2/8/2016 20:52	No SPS	0.02
	132 kV Doyang -	Relay coordinat DoP Nagaland No	ion to be done by 2/8/2016 20:21	Nagaland in co Doyang Mokokchung (NA)	DP, ZI, B-E DP, ZI, B-E Not Furnished	n POWERGRID & Not Furnished Not Furnished	& NEEPCO. No No	No No	Loss of Load: 29	GD-I	2/8/2016 20:52		
163	132 kV Doyang - Mokokchung (NA)	Relay coordinat DoP Nagaland No Mokokchung ar were under plan on 08.02.16 ,132	ion to be done by 2/8/2016 20:21 ea of Nagaland w ned shutdown,13	Nagaland in cc Doyang Mokokchung (NA) vas connected w 2 kV Mokokch okokchung (NA	nsultation with DP, ZI, B-E Not Furnished ith rest of NER ung (NA)-Mari) line tripped. I	Not Furnished Not Furnished Not Furnished R Grid through 13 ianai(AS) is unde	x NEEPCO. No No 2 kV Doyang- r long outage of	No No Mokokchung & 66 kV Tue	Loss of Load: 29 g (NA) . (132 k ³ ngsang-Likimro	GD-I V Mokokchu o line kept op	2/8/2016 20:52 ng (NA)-Mokokcl en for system requ	nung (PG) I & uirement). At	z II lines 20:21 Hrs
	132 kV Doyang - Mokokchung (NA) FIR by the constituent Brief Description of the	Relay coordinat DoP Nagaland No Mokokchung ar were under plan on 08.02.16 ,132 collapsed due to	ion to be done by 2/8/2016 20:21 ea of Nagaland w ned shutdown,13 2 kV Doyang-Mo o no source in this	Nagaland in cc Doyang Mokokchung (NA) vas connected w 2 kV Mokokch okokchung (NA s area.(Load los	nsultation with DP, ZI, B-E Not Furnished ith rest of NEF ung (NA)-Mari) line tripped. I s in MU:0.02)	Not Furnished Not Furnished Not Furnished R Grid through 13 ianai(AS) is unde	XEEPCO. No No Vo this element,	No No Mokokchung & 66 kV Tue Mokokchung	Loss of Load: 29 g (NA) . (132 k ³ ngsang-Likimro	GD-I V Mokokchu o line kept op	2/8/2016 20:52 ng (NA)-Mokokcl en for system requ	nung (PG) I & uirement). At	z II lines 20:21 Hrs
	132 kV Doyang - Mokokchung (NA) FIR by the constituent Brief Description of the Incident Antecedent Conditions of	Relay coordinat DoP Nagaland No Mokokchung ar were under plan on 08.02.16 ,132 collapsed due to (q afacri scrig	ea of Nagaland w ned shutdown,13 kV Doyang-Mc o no source in this	Nagaland in cc Doyang Mokokchung (NA) vas connected w v2 kV Mokokch okokchung (NA s area.(Load los Generation : 18	nsultation with DP, ZI, B-E Not Furnished ith rest of NEF ung (NA)-Mari) line tripped. I s in MU:0.02) 35 MW , पूर्वव्	Not Furnished Not Furnished Not Furnished R Grid through 13 ianai(AS) is unde Due to tripping of	XEEPCO. No No Voyang- r long outage of this element, dent Load : 2	No No Mokokchung & 66 kV Tue Mokokchung 274 MW)	Loss of Load: 29 g (NA) . (132 k ² ngsang-Likimro g area was separ	GD-I V Mokokchu) line kept op ated from res	2/8/2016 20:52 ng (NA)-Mokokcl en for system requ	त	z II lines 20:21 Hrs
	132 kV Doyang - Mokokchung (NA) FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid	Relay coordinat DoP Nagaland No Mokokchung ar were under plan on 08.02.16,132 collapsed due to (पूर्ववृत्ता उत्पाद Power extended	ion to be done by 2/8/2016 20:21 ea of Nagaland w ned shutdown,13 2 kV Doyang-Mo on source in this --/ Antecedent C to Mokokchung	Nagaland in cc Doyang Mokokchung (NA) /as connected w /as conn	nsultation with DP, ZI, B-E Not Furnished with rest of NEF ung (NA)-Mari) line tripped. I s in MU:0.02) 35 MW , पूर्ववृ nd at 20:52 Hrs	n POWERGRID a Not Furnished Not Furnished R Grid through 13 ianai(AS) is unde Due to tripping of दत्ता लोड/ Anteced	XEEPCO. No No Voyang- r long outage of this element, dent Load : 2 ugh 132 kV D	No No Mokokchung & 66 kV Tue Mokokchung 274 MW)	Loss of Load: 29 g (NA) . (132 k ² ngsang-Likimro g area was separ	GD-I V Mokokchu) line kept op ated from res	2/8/2016 20:52 ng (NA)-Mokokcl en for system requ		z II lines 20:21 Hrs
	132 kV Doyang - Mokokchung (NA) FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Restoration Details	Relay coordinat DoP Nagaland No Mokokchung ar were under plan on 08.02.16 ,132 collapsed due to (पूर्ववृत्ता उत्पाद Power extended Due to vegetatio	ion to be done by 2/8/2016 20:21 ea of Nagaland w ned shutdown,13 2 kV Doyang-Mo on source in this --/ Antecedent C to Mokokchung	Nagaland in cc Doyang Mokokchung (NA) vas connected w 2 kV Mokokch okokchung (NA s area.(Load los Generation : 18 area of Nagalar line, 132 kV D	nsultation with DP, ZI, B-E Not Furnished with rest of NEF ung (NA)-Mari) line tripped. I s in MU:0.02) 35 MW , पूर्वव् nd at 20:52 Hrs oyang - Mokol nd.	n POWERGRID a Not Furnished Not Furnished R Grid through 13 ianai(AS) is unde Due to tripping of ट्रत्ता लोड/ Anteced on 08.02.16 thro	XEEPCO. No No Voyang- r long outage of this element, dent Load : 2 ugh 132 kV D	No No Mokokchung & 66 kV Tue Mokokchung 274 MW)	Loss of Load: 29 g (NA) . (132 k ² ngsang-Likimro g area was separ	GD-I V Mokokchu) line kept op ated from res	2/8/2016 20:52 ng (NA)-Mokokcl en for system requ	nung (PG) I & uirement). At	z II lines 20:21 Hrs

			List of G	rid Disturba	nces in Nort	th-Eastern Re	gional Grid	l during Ja	nuary 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Mokokchung (NA)	DoP Nagaland	17:14	Mokokchung (NA)	Over current	Not applicable	No	No	24	GD-I	2/18/2016 17:30	No SPS	0.005
	FIR by the constituent	No	•		•	•	8	<u>.</u>	•	8	•		
164	Brief Description of the Incident	were under plan on 18.02.16, 13	ned shutdown,13	2 kV Mokokch okokchung (NA	ung (NA)-Mari A) line tripped.	ianai(AS) is under Due to tripping of	r long outage	& 66 kV Tue	ngsang-Likimro	o line kept op	ng (NA)-Mokokcl en for system requ st of NER Grid an	irement). At	17:14 Hrs
	Antecedent Conditions of NER Grid					त्ता लोड/ Anteced							
	Restoration Details	Power extended	to Mokokchung	area of Nagalar	nd at 17:30 Hrs	on 18.02.16 thro	ugh 132 kV D	oyang - Mok	okchung (NA)	line.			
	Root Cause		Nagaland system if no earth fault r		Ooyang - Mokol	kchung (NA) line	, phase to pha	se fault occur	rred and fault w	as cleared at	Doyang. Phase - p	hase fault see	ems the
	Remedial Measures	•	ion to be done by done by DoP Nag	•	onsultation with	n PG & NEEPCO	Directional fe	eature of over	rcurrent protecti	on at Mokok	chung (NA) to be	checked.Veg	etation
	132 kV Doyang -	DoP Nagaland	2/21/2016 0:38	Doyang	Directional Earth Fault	Not applicable	No	No	Loss of Load:	GD-I	2/21/2016 5:30	No SPS	0.103
	Mokokchung (NA)		2/21/2010 0100	Mokokchung (NA)	Not Furnished	Not applicable	No	No	19	CD 1	2,21,2010 2.30	110 51 5	0.105
	FIR by the constituent	No											
165	Brief Description of the Incident	were under plan on 21.02.16 ,132	ned shutdown,13	2 kV Mokokch okokchung (NA	ung (NA)-Mari) line tripped. I	ianai(AS) is under Due to tripping of	r long outage	& 66 kV Tue	ngsang-Likimro	o line kept op	ng (NA)-Mokokcl en for system requ st of NER Grid and	irement). At	00:38 Hrs
	Antecedent Conditions of NER Grid					त्ता लोड/ Anteced							
	Restoration Details					on 21.02.16 thro	č						
	Root Cause					okchung (NA), 1				ipped.			
	Remedial Measures	Vegetation clear	rance to be done	by DoP Nagalaı	nd.SLDC Naga	land shall report o	lownstream fa	ult also to N	ERLDC.				

			List of G	rid Disturba	nces in Nort	th-Eastern Re	gional Grid	l during Ja	nuary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Dimapur (PG) -	DoP Nagaland		Dimapur (PG)	Over current	-	No	No			1/11/2016 10:38	No SPS	
	Dimapur (Nagaland) I		1/11/2016 10:19	Dimapur	Over current	-	No	No	Loss of Load:	GD-I			0.008
	132 kV Dimapur (PG) -	POWERGRID		Dimapur (PG)	General Trip	Not Furnished	No	No	21				
	Dimapur (Nagaland) II	& DoP Nagaland		Dimapur	Not Furnished	Not Furnished	No	No			1/11/2016 10:39	No SPS	
	FIR by the constituent	No					-	<u></u>	2	<u></u>			
166	Brief Description of the Incident		& II lines trippe								rs on 11.01.2016, the collapsed due		
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent (Generation : 11	56 MW , पूर्ववृ	त्ता लोड/ Antece	dent Load : 1	619 MW)					
	Restoration Details					1.01.16 through							
	Root Cause										o earth fault relay		
	Remedial Measures	Relay settings of	f downstream sta	tions of Nagala	nd to be checke	ed by DoP Nagala	ind in consulta	ation with PC	WERGRID. C	PCC to elabor	rate on General tri	p relay indica	ation.
	132 kV Dimapur (PG) -	DoP Nagaland		Dimapur (PG)		Not applicable	No	No			2/21/2016 11:33	No SPS	
	Dimapur (Nagaland) I		2/21/2016	Dimapur	Not Furnished	Not Furnished	No	No	Loss of Load:	GD-I			0.009
	132 kV Dimapur (PG) -	POWERGRID	11:20	Dimapur (PG)	General Trip	Not Furnished	No	No	36	00-1		N. CDC	0.009
	Dimapur (Nagaland) II	& DoP Nagaland		Dimapur	Not Furnished	Not Furnished	No	No	1		2/21/2016 11:34	No SPS	
	FIR by the constituent	No							-				
167	Brief Description of the Incident	*	& II lines trippe			•	· ·	· • •			rs on 21.02.16 ,13 ntly collapsed due	-	

			List of G	rid Disturba	nces in Nort	h-Eastern Re	gional Grid	l during Ja	nuary 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	output furnished within 24	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रणा सीईए ग्रिड मानकों के	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent (Generation : 11	92 MW , पूर्ववृ	त्ता लोड/ Antece	lent Load : 1	359 MW)					
	Restoration Details	Power extended	to Dimapur area	of Nagaland at	11:33 Hrs on 2	1.02.16 through	132 kV Dimaj	pur (PG) - Di	mapur (Nagalaı	nd) I line.			
	Root Cause	In Downstream	<i>c</i> .		1	1 . 0	nd) I&II lines	s, phase to ph	ase fault occurr	ed and fault v	was cleared at Din	napur(PG). Pl	hase -
	Remedial Measures	Dimapur shall fu	rnish their dowr	stream relay se	ttings.								

			List of	Grid Disturbar	ices in North	-Eastern Reg	ional Grid	during Jar	uary 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
		POWERGRID		Dimapur (PG)	Earth Fault	Not Furnished	No	No	Loss of Load:				
	132 kV Dimapur (PG) - Kohima	& DoP Nagaland	1/12/2016 22:55	Kohima	Not Furnished	Not Furnished	No	No	26& Loss of Generation:	GD-I	1/12/2016 23:05	No SPS	0.006
	FIR by the constituent	No											
168	Brief Description of the Incident	for system requi	rement). At 22:5	nnected with rest o 5 Hrs on 12.01.20 o load generation r	16,132 kV Din								
	Antecedent Conditions of NER Grid			Generation : 1479									
	Restoration Details	Power extended	to Capital area o	f Nagaland at 23:0	5 Hrs on 12.01	.16 through 132 l	vV Dimapur (1	PG) - Kohim	a line.				
	Root Cause	<u> </u>	lem in Nagaland	2									
	Remedial Measures		rance and frequer	t petrolling to be d		, i i i i i i i i i i i i i i i i i i i				Dimapur (PC	J).		
	132 kV Dimapur (PG) - Kohima	POWERGRID & DoP Nagaland	1/12/2016 23:20	Dimapur (PG) Kohima	Earth Fault Not Furnished	Not Furnished Not Furnished	No No	No No	Loss of Load: 21& Loss of Generation:	GD-I	1/12/2016 23:30	No SPS	0.006
	FIR by the constituent	No											
169	Brief Description of the Incident	for system requi	rement). At 23:20	nnected with rest o 0 Hr on 12.01.2010 o load generation r	6,132 kV Dima	pur(PG)-Kohima	line tripped.			•			
	Antecedent Conditions of NER Grid			Generation : 1443									
	Restoration Details	Power extended	to Capital area o	f Nagaland at 23:3	0 Hrs on 12.01	.16 through 132 l	vV Dimapur (1	PG) - Kohim	a line.				
1	Root Cause	0 1	lem in Nagaland	<i>.</i>									
	Remedial Measures		rance and frequer	t petrolling to be c			-	r	r -	o be submitte	ed by POWERGR	D for Dimap	our(PG)
	132 kV Dimapur (PG) - Kohima	POWERGRID & DoP Nagaland	1/22/2016 12:43	Dimapur (PG) Kohima	General Trip Not Furnished	Not Furnished Not Furnished	No No	No No	Loss of Load: 24 &Loss of Generation: 8	GD-I	1/22/2016 13:00	No SPS	0.017
1	FIR by the constituent	No	-	-	<u>a</u>	-	-	-	-	-	-		

			List of	Grid Disturbar	nces in North	n-Eastern Reg	ional Grid	during Jar	nuary 2016				
क्रम सं छ्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
170	Brief Description of the Incident	for system requi	rement). At 12:42	nnected with rest o 3 Hrs on 22.01.20 ono source in this	16 ,132 kV Din	napur(PG)-Kohim							
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 1138	MW , पूर्ववृत्त	ा लोड/ Anteceder	t Load : 147	7 MW)					
	Restoration Details			f Nagaland at 13:0	00 Hrs on 22.01	.16 through 132 l	vV Dimapur (1	PG) - Kohim	a line.				
	Root Cause	Due to Vegetation	on problem in Na	igaland system.									
	Remedial Measures	Vegetation clear Diomapur(PG) e		nt petrolling to be o			investigation a	and analysis,	general trip to b	e elaborated	and DR outputs to	be submitted	l by PG for
	132 kV Dimapur (PG) - Kohima	POWERGRID & DoP Nagaland	2/21/2016 5:15	Dimapur (PG) Kohima	DP, ZI, Y-E Not Furnished	Not Furnished Not Furnished	No No	No No	Loss of Load: 14	GD-I	2/21/2016 5:27	No SPS	0.004
	FIR by the constituent	No											
171	Brief Description of the Incident	for system requi	rement). At 05:1:	nnected with rest o 5 Hrs on 21.02.16 o no source in this	, 132 kV Dima	pur(PG)-Kohima							
	Antecedent Conditions of NER Grid			Generation : 1195									
	Restoration Details			f Nagaland at 05:2				PG) - Kohim	a line.				
	Root Cause			line, 132 kV Dim	napur (PG) - Ko	ohima line tripped	l.						
	Remedial Measures		rance to be done l	by DoP Nagaland.				-					
	132 kV Dimapur (PG) - Kohima	POWERGRID & DoP Nagaland	2/21/2016 10:08	Dimapur (PG) Kohima	DP, ZI, B-E Not Furnished	Not Furnished Not Furnished	No No	No No	Loss of Load: 22& Loss of Generation: 8	GD-I	2/21/2016 10:51	No SPS	0.24
	FIR by the constituent	No											
172	Incident	for system requi	rement). At 10:0	nnected with rest o 8 Hrs on 21.02.10 o load generation	6 ,132 kV Dima	apur(PG)-Kohima	line tripped.						

			List of	Grid Disturbar	ices in North	1-Eastern Reg	ional Grid	during Jan	uary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 1199	MW , पूर्ववृत्त	। लोड/ Anteceder	nt Load : 1644	4 MW)	I	L			
	Restoration Details	Power extended	to Capital area o	of Nagaland at 10:5	1 Hrs on 21.02	.16 through 132 l	KV Dimapur (PG) - Kohima	a line.				
	Root Cause	Due to vegetation	on problem in the	line, 132 kV Dim	apur (PG) - Ko	hima line tripped	l.						
	Remedial Measures	Vegetation clear	rance to be done l	by DoP Nagaland.									
	132 kV Dimapur (PG) - Kohima	POWERGRID & DoP	2/21/2016 17:10	Dimapur (PG)	Not Furnished	Not Furnished	No	No	Loss of Load: 20	GD-I	2/21/2016 17:36	No SPS	0.009
	Romina	Nagaland	17.10	Kohima	No tripping	Not applicable	No	No	20				
	FIR by the constituent	No											
173	Brief Description of the Incident	for system requi	rement). At 17:1	nnected with rest o 0 Hrs on 21.02.16 o no source in this	,132 kV Dima	U	1			0			1 1
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 1438	MW , पूर्ववृत्त	ा लोड/ Anteceder	nt Load : 1418	8 MW)					
	Restoration Details	Power extended	to Capital area o	of Nagaland at 17:3	6 Hrs on 21.02	.16 through 132 l	KV Dimapur (PG) - Kohima	a line.				
	Root Cause	Dimapur(PG) ar	nd SLDC Nagalai	nd have to submit	Relay Indicatio	n pertaining to th	eir end for fur	ther investiga	tion				
	Remedial Measures	Remedial measu	res after identific	cation of root caus	e								
	132 kV Dimapur (PG) - Kohima	POWERGRID & DoP	3/31/2016 5:37	Dimapur (PG) Kohima	Not	Not Furnished Not Furnished	No No	No No	Loss of Load: 11	GD-I	3/31/2016 5:43	No SPS	0.002
		Nagaland			Furnished	r tot i unisited	110	110					
	FIR by the constituent	No											
174	Brief Description of the Incident	for system requi	rement). At 05:3	nnected with rest o 7 Hrs on 31.03.16 o no source in this	,132 kV Dimar	•	• · ·			•			
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 1253	MW , पूर्ववृत्त	া লাঁਤ/ Anteceder	nt Load : 1953	3 MW)					
	Restoration Details			of Nagaland at 05:4				PG) - Kohima	a line.				
	Root Cause	SLDC Nagaland	l has to submit R	elay Indication per	taining to their	end for further in	vestigation						
	Remedial Measures	Remedial measu	res after identific	cation of root caus	e.Dimapur(PG)	shall elaborate o	n General trip	indication.					
					/		1						

			List of (Grid Disturbar	ices in Nortl	n-Eastern Reg	ional Grid	during Jar	uary 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Dimapur (PG) -	POWERGRID	2/21/2016 0.24	Dimapur (PG)	General Trip	Not Furnished	No	No	Loss of Load:	GD-I	2/21/2016 0.58	N- CDC	0.008
	Kohima	& DoP Nagaland	3/31/2016 9:24	Kohima	Not Furnished	Not Furnished	No	No	14	GD-1	3/31/2016 9:58	No SPS	0.008
	FIR by the constituent	No				•	•			•			
175	Brief Description of the Incident	for system requi	rement). At 09:5	nnected with rest o 8 Hrs on 31.03.16 o no source in this	,132 kV Dimaj	0	1 ()			0		·	1 1
	Antecedent Conditions of NER Grid	(पर्वत स्वा उत्पाट		11/1		•							
	OI NEK GHU					ा लोड/ Anteceden							
	Restoration Details	Power extended	to Capital area o	f Nagaland at 09:5	8 Hrs on 31.03	.16 through 132 k	V Dimapur (l		a line.				
		Power extended SLDC Nagaland	to Capital area o has to submit R	f Nagaland at 09:5 elay Indication per	8 Hrs on 31.03 taining to their	.16 through 132 k end for further in	V Dimapur (l vestigation	PG) - Kohim	a line.				
	Restoration Details	Power extended SLDC Nagaland	to Capital area o has to submit R	f Nagaland at 09:5	8 Hrs on 31.03 taining to their e.Dimapur(PG)	16 through 132 k end for further in shall elaborate o	V Dimapur (l vestigation	PG) - Kohim	a line.				
	Restoration Details Root Cause	Power extended SLDC Nagaland	to Capital area o has to submit R	f Nagaland at 09:5 elay Indication per cation of root cause Dimapur (PG)	8 Hrs on 31.03 taining to their e.Dimapur(PG)	.16 through 132 k end for further in	V Dimapur (l vestigation	PG) - Kohim	a line. Loss of Load: 5	GD-I	3/31/2016 5:10	No SPS	0.001
	Restoration Details Root Cause Remedial Measures 132 kV Dimapur (PG) -	Power extended SLDC Nagalance Remedial measu POWERGRID & DoP	to Capital area o l has to submit R ares after identific	f Nagaland at 09:5 elay Indication per cation of root cause Dimapur (PG)	8 Hrs on 31.03 taining to their e.Dimapur(PG) DP, ZI, R-E Not	.16 through 132 k end for further in shall elaborate o Not Furnished	V Dimapur (l vestigation n General trip No	PG) - Kohim indication. No	Loss of Load:	GD-I	3/31/2016 5:10	No SPS	0.001
176	Restoration Details Root Cause Remedial Measures 132 kV Dimapur (PG) - Kohima FIR by the constituent Brief Description of the	Power extended SLDC Nagaland Remedial measu POWERGRID & DoP Nagaland No Capital area of N for system requi	to Capital area o l has to submit R ires after identific 3/31/2016 5:00 Nagaland was con rement). At 05:0	f Nagaland at 09:5 elay Indication per cation of root cause Dimapur (PG)	8 Hrs on 31.03 taining to their e.Dimapur(PG) DP, ZI, R-E Not Furnished f NER Grid thr ,132 kV Dimap	.16 through 132 k end for further in shall elaborate o Not Furnished Not Furnished ough 132 kV Din	V Dimapur (l vestigation n General trip No No napur(PG)-Ko	PG) - Kohim indication. No No hima line (12	Loss of Load: 5 32 kV Kohima-	Karong line &	& 66 kV Tuensang	-Likimro line	e kept open
176	Restoration Details Root Cause Remedial Measures 132 kV Dimapur (PG) - Kohima FIR by the constituent Brief Description of the	Power extended SLDC Nagaland Remedial measu POWERGRID & DoP Nagaland No Capital area of N for system requi and subsequentl (पूर्ववृ त्ता उत्पाद	to Capital area o l has to submit R ires after identifio 3/31/2016 5:00 Nagaland was con rement). At 05:0 y collapsed due t	f Nagaland at 09:5 elay Indication per cation of root cause Dimapur (PG) Kohima nected with rest o 0 Hrs on 31.03.16 o no source in this Generation : 1253	8 Hrs on 31.03 taining to their e.Dimapur(PG) DP, ZI, R-E Not Furnished f NER Grid thr ,132 kV Dimap area. MW, ¶afacc	0.16 through 132 k end for further in shall elaborate o Not Furnished Not Furnished ough 132 kV Din our(PG)-Kohima h	V Dimapur (l vestigation n General trip No No napur(PG)-Ko ine tripped. D t Load : 1909	PG) - Kohim indication. No No ohima line (1: Oue to trippin	Loss of Load: 5 32 kV Kohima- g of this elemer	Karong line &	& 66 kV Tuensang	-Likimro line	e kept open
176	Restoration Details Root Cause Remedial Measures 132 kV Dimapur (PG) - Kohima FIR by the constituent Brief Description of the Incident Antecedent Conditions	Power extended SLDC Nagaland Remedial measu POWERGRID & DoP Nagaland No Capital area of N for system requi and subsequentl (पूर्ववृ त्ता उत्पाद	to Capital area o l has to submit R ires after identifio 3/31/2016 5:00 Nagaland was con rement). At 05:0 y collapsed due t	f Nagaland at 09:5 elay Indication per cation of root cause Dimapur (PG) Kohima nnected with rest o 0 Hrs on 31.03.16 o no source in this	8 Hrs on 31.03 taining to their e.Dimapur(PG) DP, ZI, R-E Not Furnished f NER Grid thr ,132 kV Dimap area. MW, ¶afacc	0.16 through 132 k end for further in shall elaborate o Not Furnished Not Furnished ough 132 kV Din our(PG)-Kohima h	V Dimapur (l vestigation n General trip No No napur(PG)-Ko ine tripped. D t Load : 1909	PG) - Kohim indication. No No ohima line (1: Oue to trippin	Loss of Load: 5 32 kV Kohima- g of this elemer	Karong line &	& 66 kV Tuensang	-Likimro line	e kept open
176	Restoration Details Root Cause Remedial Measures 132 kV Dimapur (PG) - Kohima FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid	Power extended SLDC Nagalanc Remedial measu POWERGRID & DoP Nagaland No Capital area of N for system requi and subsequentl (पूर्ववृत्ता उत्पाद Power extended	to Capital area o has to submit R ares after identifie 3/31/2016 5:00 Nagaland was con rement). At 05:0 y collapsed due t r / Antecedent C to Capital area o	f Nagaland at 09:5 elay Indication per cation of root cause Dimapur (PG) Kohima nected with rest o 0 Hrs on 31.03.16 o no source in this Generation : 1253	8 Hrs on 31.03 taining to their e.Dimapur(PG) DP, ZI, R-E Not Furnished f NER Grid thr ,132 kV Dimag area. MW, पूर्ववृत्त 0 Hrs on 31.03	16 through 132 k end for further in shall elaborate of Not Furnished Not Furnished ough 132 kV Din our(PG)-Kohima l T लोड/ Anteceden	V Dimapur (l vestigation n General trip No No napur(PG)-Ko ine tripped. D t Load : 1909	PG) - Kohim indication. No No ohima line (1: Oue to trippin	Loss of Load: 5 32 kV Kohima- g of this elemer	Karong line &	& 66 kV Tuensang	-Likimro line	e kept open
176	Restoration Details Root Cause Remedial Measures 132 kV Dimapur (PG) - Kohima FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Restoration Details	Power extended SLDC Nagalanc Remedial measu POWERGRID & DoP Nagaland No Capital area of N for system requi and subsequentl (पूर्ववृत्ता उत्पाद Power extended Due to vegetatic	to Capital area o has to submit R ares after identifie 3/31/2016 5:00 Nagaland was con- rement). At 05:0 y collapsed due t 	f Nagaland at 09:5 elay Indication per cation of root cause Dimapur (PG) Kohima mected with rest o 0 Hrs on 31.03.16 o no source in this Generation : 1253 f Nagaland at 05:1	8 Hrs on 31.03 taining to their e.Dimapur(PG) DP, ZI, R-E Not Furnished f NER Grid thr ,132 kV Dimag area. MW, पूर्ववृत्त 0 Hrs on 31.03	16 through 132 k end for further in shall elaborate of Not Furnished Not Furnished ough 132 kV Din our(PG)-Kohima l T लोड/ Anteceden	V Dimapur (l vestigation n General trip No No napur(PG)-Ko ine tripped. D t Load : 1909	PG) - Kohim indication. No No ohima line (1: Oue to trippin	Loss of Load: 5 32 kV Kohima- g of this elemer	Karong line &	& 66 kV Tuensang	-Likimro line	e kept open
176	Restoration Details Root Cause Remedial Measures 132 kV Dimapur (PG) - Kohima FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Restoration Details Root Cause	Power extended SLDC Nagalanc Remedial measu POWERGRID & DoP Nagaland No Capital area of N for system requi and subsequentl (पूर्ववृत्ता उत्पाद Power extended Due to vegetatic	to Capital area o has to submit R ares after identifie 3/31/2016 5:00 Nagaland was con- rement). At 05:0 y collapsed due t 	f Nagaland at 09:5 elay Indication per cation of root cause Dimapur (PG) Kohima nected with rest o 0 Hrs on 31.03.16 o no source in this Generation : 1253 f Nagaland at 05:1 line, 132 kV Dima	8 Hrs on 31.03 taining to their e.Dimapur(PG) DP, ZI, R-E Not Furnished f NER Grid thr ,132 kV Dimag area. MW, पूर्ववृत्त 0 Hrs on 31.03 apur (PG) - Ko	16 through 132 k end for further in shall elaborate of Not Furnished Not Furnished ough 132 kV Din our(PG)-Kohima l T लोड/ Anteceden	V Dimapur (l vestigation n General trip No No napur(PG)-Ko ine tripped. D t Load : 1909	PG) - Kohim indication. No No ohima line (1: Oue to trippin	Loss of Load: 5 32 kV Kohima- g of this elemer	Karong line &	& 66 kV Tuensang	z-Likimro line om rest of N	e kept open

			List of (Grid Disturban	ces in North	-Eastern Reg	ional Grid	during Jan	uary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
177	Brief Description of the Incident	for system requi	ll 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 stem requirement). At 13:31 Hrs on 13.04.16, 132 kV Dimapur(PG)-Kohima line tripped. Due to tripping of this element, Capital area was separated from rest of NER Grid ibsequently collapsed due to no source in this area.										
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद											
	Root Cause	Due to vegetatio	n problem in the	line or in downstre	eam of Kohima	u (NA), 132 kV D	imapur (PG)	- Kohima line	e tripped.				
	Remedial Measures			by DoP Nagaland. by be checked by De					LDC.Dimapur(PG) shall ela	borate on General	trip indicatio	n.Relay
	132 kV Dimapur (PG) - Kohima	POWERGRID & DoP	4/9/2016 10:50	Dimapur (PG) Kohima		Not Furnished Not Furnished	No No	No No	Loss of Load: 6	GD-I	4/9/2016 11:20	No SPS	0.003
	FIR by the constituent	No											
178	Brief Description of the Incident	for system requi	rement). At 10:50	Description of the second seco	,132 kV Dimap								
	Antecedent Conditions of NFR Grid			eneration : 1359									
	Root Cause			line or in downstre									
	Remedial Measures			by DoP Nagaland.S be checked by De	•	-			LDC.Dimapur(PG) shall ela	borate on General	trip indicatio	n.Relay
	132 kV Dimapur (PG) -	POWERGRID & DoP	4/12/2016 10:27	Dimapur (PG)		Not applicable	No	No	Loss of Load:	GD-I	4/12/2016 10:37	No SPS	0.003
	Kohima	Nagaland		Kohima	Not	Not applicable	No	No	7	021		1.0 51 5	0.000
	FIR by the constituent	No											
179	Brief Description of the Incident	for system requi	rement). At 10:2'	nected with rest of 7 Hrs on 12.04.16, 9 load generation r	132 kV Dimap								
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent G	eneration : 1713	MW , पूर्ववृ <i>त्</i> त	। लोड/ Anteceden	t Load : 158	7 MW)					

			List of	Grid Disturbar	ices in North	n-Eastern Reg	ional Grid	during Jan	uary 2016				
क्रम सं छ्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Root Cause	Due to vegetation	on problem in the	line or in downstr	eam of Kohima	a (NA), 132 kV D	imapur (PG)	- Kohima line	e tripped.				
	Remedial Measures	•	ance to be done l sultation with PC	by DoP Nagaland. SWERGRID.	Ū.		vnstream fault	also to NER	LDC.Relay sett	ings of down	stream stations to	be checked b	by DoP
	132 kV Dimapur (PG) -	POWERGRID		Dimapur (PG)		Not Furnished	No	No	Loss of Load:	ar -			0.071
	Kohima	& DoP Nagaland	4/15/2016 0:35	Kohima	Not Furnished	Not Furnished	No	No	3	GD-I	4/15/2016 0:53	No SPS	0.001
	FIR by the constituent	No											
180	Brief Description of the Incident Antecedent Conditions	for system requi	rement). At 00:3	nected with rest o 5 Hrs on 15.04.16, o no source in this	132 kV Dimap	U	1 . ,			0	C C		1 1
		(पर्वत स्ता उस्पाट	=/ Antecedent (Conception • 1518	MW पर्वतन्त	ा त्रोह/ Antocodor	ot I and • 1679	R MW)					
	of NER Grid			Generation : 1518									
	of NER Grid Root Cause	Due to vegetatio	n problem in the	line or in downstr	eam of Kohima	a (NA), 132 kV D	vimapur (PG)	- Kohima line					
		Due to vegetation Vegetation clear	on problem in the cance to be done l		eam of Kohima SLDC Nagalan	a (NA), 132 kV D d shall report dov	imapur (PG) vnstream fault	- Kohima line also to NER		PG) shall ela	borate on General	trip indicatio	n.Relay
	Root Cause Remedial Measures	Due to vegetation Vegetation clear settings of down POWERGRID	n problem in the ance to be done l stream stations to	line or in downstr by DoP Nagaland.	eam of Kohima SLDC Nagalan oP Nagaland in	a (NA), 132 kV D d shall report dov	imapur (PG) vnstream fault	- Kohima line also to NER	LDC.Dimapur(
	Root Cause	Due to vegetation Vegetation clear settings of down	on problem in the cance to be done l	line or in downstr by DoP Nagaland. o be checked by D	eam of Kohima SLDC Nagalan oP Nagaland in	a (NA), 132 kV D d shall report dow a consultation wit	imapur (PG) vnstream fault h POWERGR	- Kohima line also to NER ID.		PG) shall ela GD-I	borate on General 5/1/2016 1:49	trip indicatio No SPS	n.Relay 0.019
	Root Cause Remedial Measures 132 kV Dimapur (PG) -	Due to vegetation Vegetation clear settings of down POWERGRID & DoP Nagaland No	on problem in the rance to be done b astream stations to 5/1/2016 0:58	line or in downstr by DoP Nagaland. o be checked by D Dimapur (PG) Kohima	eam of Kohima SLDC Nagaland oP Nagaland in Earth Fault Not Furnished	a (NA), 132 kV D d shall report dow a consultation wit Not applicable Not applicable	vimapur (PG) - vnstream fault h POWERGR No No	- Kohima line also to NER ID. No No	LDC.Dimapur(Loss of Load: 24	GD-I	5/1/2016 1:49	No SPS	0.019
181	Root Cause Remedial Measures 132 kV Dimapur (PG) - Kohima	Due to vegetation Vegetation clear settings of down POWERGRID & DoP Nagaland No Capital area of N for system requi	n problem in the rance to be done l stream stations to 5/1/2016 0:58 Nagaland was cor rement). At 00:55	line or in downstr by DoP Nagaland. o be checked by D Dimapur (PG)	eam of Kohima SLDC Nagaland oP Nagaland in Earth Fault Not Furnished f NER Grid thr ,132 kV Dimag	a (NA), 132 kV D d shall report dow a consultation wit Not applicable Not applicable ough 132 kV Din	vimapur (PG) - vnstream fault h POWERGR No No napur(PG)-Kc	- Kohima line also to NER ID. No No	LDC.Dimapur(Loss of Load: 24 22 kV Kohima-	GD-I Karong line &	5/1/2016 1:49 & 66 kV Tuensang	No SPS -Likimro line	0.019 e kept open
181	Root Cause Remedial Measures 132 kV Dimapur (PG) - Kohima FIR by the constituent Brief Description of the	Due to vegetation Vegetation clear settings of down POWERGRID & DoP Nagaland No Capital area of N for system requi and subsequently	n problem in the rance to be done l istream stations to 5/1/2016 0:58 Vagaland was cor rement). At 00:53 y collapsed due to	line or in downstr by DoP Nagaland. o be checked by D Dimapur (PG) Kohima nnected with rest o 8 Hrs on 01.05.16	eam of Kohima SLDC Nagaland oP Nagaland in Earth Fault Not Furnished f NER Grid thr ,132 kV Dimag area.	a (NA), 132 kV D d shall report dow a consultation wit Not applicable Not applicable ough 132 kV Din pur(PG)-Kohima	vimapur (PG) - vnstream fault h POWERGR No No napur(PG)-Ko line tripped. D	- Kohima line also to NER ID. No No bhima line (13 Due to tripping	LDC.Dimapur(Loss of Load: 24 22 kV Kohima-	GD-I Karong line &	5/1/2016 1:49 & 66 kV Tuensang	No SPS -Likimro line	0.019 e kept open
181	Root Cause Remedial Measures 132 kV Dimapur (PG) - Kohima FIR by the constituent Brief Description of the Incident Antecedent Conditions	Due to vegetation Vegetation clear settings of down POWERGRID & DoP Nagaland No Capital area of N for system requi and subsequently (पूर्ववृत्ता उत्पाद Due to vegetation	n problem in the ance to be done l istream stations to 5/1/2016 0:58 Nagaland was cor rement). At 00:55 y collapsed due to F/ Antecedent Con n problem in the	line or in downstr by DoP Nagaland. o be checked by D Dimapur (PG) Kohima nnected with rest o 8 Hrs on 01.05.16 o no source in this Seneration : 957 M line or in downstr	eam of Kohima SLDC Nagaland oP Nagaland in Earth Fault Not Furnished f NER Grid thr ,132 kV Dimap area. MW , पूर्ववृत्ता eam of Kohima	a (NA), 132 kV D d shall report dow a consultation wit Not applicable Not applicable ough 132 kV Din pur(PG)-Kohima लोड/ Antecedent a (NA), 132 kV D	vimapur (PG) vnstream fault h POWERGR No No napur(PG)-Kc line tripped. E Load : 1388 vimapur (PG)	- Kohima line also to NER ID. No No ohima line (13 Due to tripping MW) - Kohima line	LDC.Dimapur(Loss of Load: 24 2 kV Kohima- g of this element e tripped.	GD-I Karong line & t, Capital are	5/1/2016 1:49 & 66 kV Tuensang a was separated fr	No SPS -Likimro line om rest of N	0.019 e kept open ER Grid
181	Root Cause Remedial Measures 132 kV Dimapur (PG) - Kohima FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid	Due to vegetation Vegetation clear settings of down POWERGRID & DoP Nagaland No Capital area of N for system requi and subsequently (पूर्ववृत्ता उत्पाद Due to vegetation	n problem in the ance to be done l istream stations to 5/1/2016 0:58 Nagaland was cor rement). At 00:55 y collapsed due to F/ Antecedent Con problem in the	line or in downstr by DoP Nagaland. o be checked by D Dimapur (PG) Kohima nnected with rest o 8 Hrs on 01.05.16 o no source in this Generation : 957 M line or in downstr by DoP Nagaland.	eam of Kohima SLDC Nagaland oP Nagaland in Earth Fault Not Furnished f NER Grid thr ,132 kV Dimap area. MW , पूर्ववृत्ता eam of Kohima	a (NA), 132 kV D d shall report dow a consultation wit Not applicable Not applicable ough 132 kV Din pur(PG)-Kohima लोड/ Antecedent a (NA), 132 kV D	vimapur (PG) vnstream fault h POWERGR No No napur(PG)-Kc line tripped. E Load : 1388 vimapur (PG)	- Kohima line also to NER ID. No No ohima line (13 Due to tripping MW) - Kohima line	LDC.Dimapur(Loss of Load: 24 2 kV Kohima- g of this element e tripped.	GD-I Karong line & t, Capital are	5/1/2016 1:49 & 66 kV Tuensang a was separated fr	No SPS -Likimro line om rest of N	0.019 e kept open ER Grid
181	Root Cause Remedial Measures 132 kV Dimapur (PG) - Kohima FIR by the constituent Brief Description of the Incident Antecedent Conditions of NER Grid Root Cause	Due to vegetation Vegetation clear settings of down POWERGRID & DoP Nagaland No Capital area of N for system requi and subsequently (पूर्ववृत्ता उत्पाद Due to vegetation	n problem in the rance to be done l stream stations to 5/1/2016 0:58 Nagaland was cor rement). At 00:59 y collapsed due to F/ Antecedent Con problem in the rance to be done l	line or in downstr by DoP Nagaland. o be checked by D Dimapur (PG) Kohima nnected with rest o 8 Hrs on 01.05.16 o no source in this Generation : 957 M line or in downstr by DoP Nagaland.	eam of Kohima SLDC Nagaland oP Nagaland in Earth Fault Not Furnished f NER Grid thr ,132 kV Dimap area. MW , पूर्ववृ त्ता eam of Kohima SLDC Nagalan	a (NA), 132 kV D d shall report dow a consultation wit Not applicable Not applicable ough 132 kV Din pur(PG)-Kohima लोड/ Antecedent a (NA), 132 kV D	vimapur (PG) vnstream fault h POWERGR No No napur(PG)-Kc line tripped. E Load : 1388 vimapur (PG)	- Kohima line also to NER ID. No No ohima line (13 Due to tripping MW) - Kohima line	LDC.Dimapur(Loss of Load: 24 2 kV Kohima- g of this element e tripped.	GD-I Karong line & t, Capital are	5/1/2016 1:49 & 66 kV Tuensang a was separated fr	No SPS -Likimro line om rest of N	0.019 e kept open ER Grid

			List of (Grid Disturbar	ices in North	-Eastern Reg	ional Grid	during Jai	nuary 2016					
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU	
	FIR by the constituent	No				-					-			
182	Brief Description of the Incident	for system requi												
	Antecedent Conditions of NER Grid		ntly collapsed due to no source in this area. बादन/ Antecedent Generation : 1171 MW, पूर्ववृत्ता लोड/ Antecedent Load : 1783 MW) tion problem in the line or in downstream of Kohima (NA), 132 kV Dimapur (PG) - Kohima line tripped.											
	Root Cause	Due to vegetatio	on problem in the	line or in downstr	eam of Kohima	a (NA), 132 kV D	imapur (PG)	- Kohima lin	e tripped.					
	Remedial Measures	-	ance to be done l sultation with PC	by DoP Nagaland. WERGRID.	SLDC Nagalan	d shall report dov	vnstream fault	also to NER	LDC.Relay set	ings of down	stream stations to	be checked b	oy DoP	
	132 kV Dimapur (PG) - Kohima	POWERGRID & DoP	5/5/2016 11:35	Dimapur (PG)		Not applicable	No	No	Loss of Load: 12	GD-I	5/5/2016 11:44	No SPS	0.003	
		Nagaland		Kohima	No tripping	Not applicable	No	No						
	FIR by the constituent	Yes												
183	Brief Description of the Incident	for system requi	rement). At 11:3:	nected with rest o 5 Hrs on 05.05.16, o no source in this	132 kV Dimap									
	Antecedent Conditions of NER Grid													
	Root Cause	Due to vegetatio	on problem in the	line or in downstr	eam of Kohima	a (NA), 132 kV D	imapur (PG)	- Kohima line	e tripped.					
	Remedial Measures		ance to be done l sultation with PC	oy DoP Nagaland. WERGRID.	SLDC Nagalan	d shall report dov	vnstream fault	also to NER	LDC.Relay set	ings of down	stream stations to	be checked b	by DoP	
	132 kV Dimapur (PG) -	POWERGRID	5/11/2016 14.35	Dimapur (PG)	Earth Fault	Not applicable	No	No	Loss of Load:		5/11/2016 14.50	No CDC	0.012	

			List of	Grid Disturbar	ces in North	n-Eastern Reg	ional Grid	during Jar	uary 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Kohima	& Dop Nagaland	5/11/2016 14:35	Kohima	No tripping	Not applicable	No	No	25	GD-I	5/11/2016 14:59	NO SPS	0.013
	FIR by the constituent	No			<u></u>		8			8	•		
184	Brief Description of the Incident	for system requi	rement). At 14:3	nnected with rest o 5 Hrs on 11.05.16, o no source in this	132 kV Dimap	•	· · ·			•			
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 1429	MW , पूर्ववृत्त	ा लोड/ Anteceden	t Load : 161'	7 MW)					
	Root Cause	Due to vegetatio	on problem in the	line or in downstr	eam of Kohima	a (NA), 132 kV D	imapur (PG)	- Kohima line	e tripped.				
	Remedial Measures		rance to be done lasultation with PC	by DoP Nagaland. WERGRID.	SLDC Nagalan	d shall report dow	vnstream fault	also to NER	LDC.Relay sett	ings of down	stream stations to	be checked b	y DoP
	132 kV Dimapur (PG) -	POWERGRID & DoP	5/10/0016 10:51	Dimapur (PG)	Earth Fault	Not applicable	No	No	Loss of Load:	GD-I	5/12/2016 14:01	No SPS	0.004
	Kohima	Nagaland	5/12/2016 13:51	Kohima	Over current	Not applicable	No	No	18	GD-1	5/12/2010 14:01	N0 5P5	0.004
	FIR by the constituent	Yes(Nagaland)			<u></u>		8			8			
	Brief Description of the Incident	for system requi	rement). At 13:5	nnected with rest o 1 Hrs on 12.05.16, o no source in this	132 kV Dimap	•	· · ·			•			
185	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 1555	MW , पूर्ववृत्त	ा लोड/ Anteceden	t Load : 170	1 MW)					

1			List of (Grid Disturban	ces in North	i-Eastern Reg	ional Grid (during Jan	uary 2016					
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU	
	Root Cause	Due to vegetation problem in the line, 132 kV Dimapur (PG) - Kohima line tripped.												
	Remedial Measures	Remedial Measures Vegetation clearance to be done by DoP Nagaland&POWERGRID. Directionality function of Earth fault/Over current relay at Kohima to be checked. Built in E/F and O/C feature of Numerical relay at Dimapur-PG to be enabled along with triggering of DR at the earliest by POWERGRID, so that nature of fault can be known from DR.												
	132 kV Dimapur (PG) -	POWERGRID		Dimapur (PG)	Earth Fault	Not applicable	No	No	Loss of Load:	65 I				
	Kohima	& DoP Nagaland	5/12/2016 14:03	Kohima	Over current	Not applicable	No	No	12	GD-I	5/12/2016 14:24	No SPS	0.004	
	FIR by the constituent	No												
10.1	Brief Description of the Incident	for system requi	rement). At 14:0	nnected with rest of 3 Hrs on 12.05.16, o no source in this	132 kV Dimap	•	· · ·							
186	Antecedent Conditions													
	of NER Grid	(पूर्ववृत्ता उत्पाद	bsequently collapsed due to no source in this area. त्ता उत्पादन/ Antecedent Generation : 1557 MW , पूर्ववृत्ता लोड/ Antecedent Load : 1706 MW)											
	of NER Grid (Querter of view) Antecedent Generation (1557 MW), Querter of of MW) Root Cause Due to vegetation problem in the line , 132 kV Dimapur (PG) - Kohima line tripped. Due to vegetation clearance to be done by DoP Nagaland&POWERGRID. Directionality function of Earth fault/Over current relay at Kohima to be checked. Built in E/F and O/C feature													
	of NER Grid	Due to vegetation	on problem in the	line , 132 kV Dim	apur (PG) - Ko 2POWERGRIE	hima line tripped D. Directionality fr	unction of Ear	th fault/Over					C feature	
	of NER Grid Root Cause	Due to vegetation Vegetation clean of Numerical re- POWERGRID	on problem in the rance to be done lay at Dimapur-P	line , 132 kV Dim by DoP Nagaland&	apur (PG) - Ko 2POWERGRIE	hima line tripped D. Directionality fr	unction of Ear	th fault/Over		of fault can b	e known from DR			
	of NER Grid Root Cause Remedial Measures	Due to vegetation Vegetation clean of Numerical re	on problem in the	line , 132 kV Dim by DoP Nagaland& G to be enabled al	apur (PG) - Ko POWERGRIE ong with trigge Back Up Earth Fault	hima line tripped D. Directionality f pring of DR at the	unction of Ear earliest by PC	th fault/Over DWERGRID,	, so that nature	of fault can b			C feature	

			List of (Grid Disturban	ices in North	-Eastern Regi	ional Grid	during Jan	uary 2016						
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU		
187	Brief Description of the Incident	for system requi	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 em requirement). At 13:52 Hrs on 16.05.16, 132 kV Dimapur(PG)-Kohima line tripped. Due to tripping of this element, Capital area was separated from rest of NER Grid sequently collapsed due to no source in this area.												
107	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद													
	Root Cause	Due to vegetatio	on problem in the	line , 132 kV Dim	apur (PG) - Ko	hima line tripped									
	Remedial Measures			by DoP Nagaland& G to be enabled al									C feature		
	132 kV Dimapur (PG) -	POWERGRID & DoP	5/18/2016 13:29	Dimapur (PG)	Over Current,Earth Fault	Not applicable	No	No	Loss of Load:	GD-I	5/18/2016 13:50	No SPS	0.006		
	Kohima	Nagaland		Kohima	Y-Ph, Over Current	Not applicable	No	No	15						
	FIR by the constituent	No													
188	Brief Description of the Incident	for system requi	rement). At 13:29	Hrs on 18.05.16, o no source in this	132 kV Dimap	•	· · ·								
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	eneration : 1873	MW , पूर्ववृत्त	। लोड/ Anteceden	t Load : 1964	4 MW)							
	Root Cause	Due to vegetation	on problem in the	line , 132 kV Dim	apur (PG) - Ko	hima line tripped									

			List of	Grid Disturban	ces in North	n-Eastern Reg	ional Grid	during Jar	uary 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Remedial Measures			by DoP Nagaland& G to be enabled al		•			•				C feature
	132 kV Dimapur (PG) -	POWERGRID & DoP	5/19/2016 18:20	Dimapur (PG)	Over Current,Earth Fault	Not applicable	No	No	Loss of Load:	GD-I	5/19/2016 18:40	No SPS	0.015
	Kohima	Nagaland		Kohima	No tripping	Not applicable	No	No	33				
	FIR by the constituent	No				-							
189	Brief Description of the Incident	for system requi	rement). At 18:2	nnected with rest o 0 Hrs on 19.05.16, o no source in this	132 kV Dimap								
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent (Generation : 1842	MW , पूर्ववृ <i>त्</i> त	ा लोड/ Anteceden	t Load : 196	7 MW)					
	Root Cause	Due to vegetatio	on problem in the	line or in downstr	eam of Kohima	a (NA), 132 kV D	imapur (PG)	- Kohima line	e tripped.				
	Remedial Measures	U	rance to be done sultation with PC	by DoP Nagaland.S DWERGRID.	SLDC Nagalan	d shall report dov	vnstream fault	also to NER	LDC.Relay sett	ings of down	stream stations to	be checked b	y DoP
	132 kV Dimapur (PG) - Kohima	POWERGRID & DoP	5/19/2016 18:45	Dimapur (PG)	Over Current,Earth Fault	Not applicable	No	No	Loss of Load: 22	GD-I	5/19/2016 19:25	No SPS	0.016
	Konima	Nagaland		Kohima	No tripping	Not applicable	No	No	22				
	FIR by the constituent	No											

			List of (Grid Disturban	ices in North	-Eastern Reg	onal Grid	during Jan	uary 2016				
क्रम सं छ्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
190	Brief Description of the Incident	for system requi	rement). At 18:4	nected with rest of 5 Hrs on 19.05.16 o no source in this	, 132 kV Dima		· · ·			•			
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	eneration : 1887	MW , पूर्ववृत्त	ा लोड/ Anteceden	t Load : 2064	4 MW)					
	Root Cause	Due to vegetation	to vegetation problem in the line or in downstream of Kohima (NA), 132 kV Dimapur (PG) - Kohima line tripped.										
	Remedial Measures		getation clearance to be done by DoP Nagaland.SLDC Nagaland shall report downstream fault also to NERLDC.Relay settings of downstream stations to be checked by DoP galand in consultation with POWERGRID.										
	132 kV Dimapur (PG) -	POWERGRID & DoP	6/11/2016 11:40	Dimapur (PG)	Over Current,Earth Fault	Not applicable	No	No	Loss of Load: 16& Loss of	GD-I	6/11/2016 11:55	No SPS	0.004
	Kohima	Nagaland	0,11,2010,111,10	Kohima	Earth Fault	Not applicable	No	No	Generation: 16	021	0.11.2010.1100	110 01 0	0.001
	FIR by the constituent	Yes						•					
191	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 11:40 Hrs on 11.06.16,132 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 : 1754 MW, Antecedent Load : 1479 MW)													
of NER Grid (Antecedent Generation : 1/54 MW , Antecedent Load : 14/9 MW) Root Cause													

			List of (Grid Disturbar	ices in North	-Eastern Reg	ional Grid	during Jar	nuary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Remedial Measures												
	132 kV Dimapur (PG) -	POWERGRID & DoP	6/29/2016 18:40	Dimapur (PG)	Over current	Not applicable	No	No	Loss of Load:	GD-I	6/29/2016 18:53	No SPS	0.007
	Kohima	Nagaland	0/23/2010 10.40	Kohima	Not Furnished	Not applicable	No	No	22	010-1	0/27/2010 10:55	10515	0.007
	FIR by the constituent	No											
192	Brief Description of the Incident	for system requi	rement). At 18:40	nnected with rest o 0 Hrs on 29.06.16, o no source in this	132 kV Dimap								
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : MW	, Antecedent Loa	nd: MW)								
	Root Cause												
	Remedial Measures												
	132 kV Dimapur (PG) -	POWERGRID		Dimapur (PG)	Over current, Earth fault	Not applicable	No	No	Loss of Load:				
	Kohima	& DoP Nagaland	6/5/2016 0:00	Kohima	Earth Fault (in 132 kV Kiphire line)	Not applicable	No	No	9& Loss of Generation: 8	GD-I	6/5/2016 0:14	No SPS	0.003
	FIR by the constituent	Yes											

			List of	Grid Disturbar	ices in North	-Eastern Reg	ional Grid	during Jar	uary 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
193	Brief Description of the Incident	for system requi	rement). At 00:0	nnected with rest o 00 Hr on 05.06.16, o load generation r	132 kV Dimap	-	-			-			
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1883	MW , Anteceden	t Load : 1972 I	MW)							
	Root Cause												
	Remedial Measures												

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं छ्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Surjamaninagar-	POWERGRID		Surjamaninagar	Not Furnished	Not Furnished	No	No			4/4/2016 21:40	No SPS	
	Palatana I	I O WERORID		Palatana		Not Furnished	No	No			4/4/2010 21.40	110 51 5	
	132 kV Agartala - Bodhjungnagar	TSECL		Agartala Bodhjungnagar		Not applicable Not applicable	No No	No No			4/4/2016 21:34	No SPS	
	132 kV Surjamaninagar-	TOPOT		Surjamaninagar	Earth Fault	Not applicable	No	No				N. GDG	
	Agarthala I	TSECL		Agarthala	Not Furnished	Not Furnished	No	No			4/4/2016 21:57	No SPS	
	132 kV Surjamaninagar-	TOPOT		Surjamaninagar	Earth Fault	Not applicable	No	No				N. GDG	
	Agarthala II	TSECL		Agarthala	Not Furnished	Not applicable	No	No			4/4/2016 21:57	No SPS	
	132 kV Agartala - Rokhia I	TSECL	4/4/2016 21:06	Agartala Rokhia		Not applicable Not applicable	No No	No No	Loss of Load: 76	GD-I	4/4/2016 21:20	No SPS	0.081
	132 kV Agartala - Rokhia			Agartala	Not Furnished	11	No	No	10				
	IJ2 KV Agaitaia - Kokina II	TSECL		Rokhia		Not applicable	No	No			4/4/2016 21:20	No SPS	
	132 kV AGTPP - Agartala	POWERGRID		AGTPP	DP, ZIII, Y-B- E	Not Furnished	No	No			4/4/2016 21:55	No SPS	
194	Ι	10 WERGRID		Agartala	Not Furnished	Not Furnished	No	No			1/ 1/2010 21:55	110 51 5	
1)4	132 kV AGTPP - Agartala	POWERGRID		AGTPP	DP, ZII, Y-B-E		No	No			4/4/2016 21:30	No SPS	
	П	10 WERORID		Agartala	Not Furnished	Not Furnished	No	No			4/4/2010 21:50	110 51 5	
	FIR by the constituent	No					1,0	1.0					
	Brief Description of the Incident	Bodhjungnagar : not restored afte kV Agartala - Ro	line,132 kV Surja r tripping). At 21 okhia I&II lines,	milla area of Bangl amaninagar-Agartha :06 Hrs on 04.04.1 132 kV AGTPP - A Grid and subseque	ala I & II lines,13 5,132 kV Surjam Agartala I & II line	2 kV Agartala - F aninagar-Palatana es tripped. Due to	Rokhia I&II lin 1 line, 132 k 1 tripping of th	nes, 132 kV A V Agartala - I	AGTPP - Agarta Bodhjungnagar	ala I & II line line,132 kV S	s (132 kV Udaipu Surjamaninagar-A	r-Monarchak garthala I &	II lines,132
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पाद	न/ Antecedent G	Generation : 1310 I	MW , पूर्ववृत्ता ल	ोड/ Antecedent I	.oad : 2219 N	fW)					
	Root Cause	Due to vegetatio	on problem, fault	occured in Tripura	system.								
	Remedial Measures	Detailed report t earliest by TSEC		y SLDC Tripura.Ve	egetation clearanc	to be done by T	SECL.Electro	o mechanical	relays in Tripu	ra system to b	be replaced by Nur	merical relay	s at the
	132 kV Agartala -	TOPOT		Agartala	Earth Fault	Not applicable	No	No			5/1/001 5 00 C 5	N. CDC	
	Dhalabil (Khowai)	TSECL	10.57.00	Dhalabil		Not applicable	No	No			5/1/2016 20:25	No SPS	

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janu	ary 2016				
क्रम सं छ्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर दवारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Ambasa -	TSECL	19.57.00	Ambassa		Not applicable	No	No			5/1/2016 20:21	No SPS	
	Teliamura			Teliamura	Earth Fault	Not applicable	No	No	ļ				
	132 kV AGTPP - Agartala I	POWERGRID		AGTPP	DP, ZIII, R-Y- E	Not applicable	No	No			5/1/2016 20:25	No SPS	
				Agartala		Not applicable	No	No					
	132 kV AGTPP - Agartala II	POWERGRID		AGTPP	DP, ZIII, R-Y- E	Not applicable	No	No	Loss of Load:		5/1/2016 20:25	No SPS	
	11			Agartala	No tripping	Not applicable	No	No	230& Loss of	GD-II			0.046
	132 kV AGTPP -	POWERGRID	20:07:00	AGTPP	Heavy voltage jerk	Not applicable	No	No	Generation: 161	00-11	5/1/2016 20:47	No SPS	0.040
	Kumarghat	POWERGRID		Kumarghat	DP, ZIII, R-Y- E	Not applicable	Yes	No			5/1/2010 20:47	NO SES	
	AGTPP U 1	NEEPCO		AGTPP	Tripped due to	Not applicable	No	No			5/2/2016 20:14	No SPS	
	AGTPP U 2	NEEPCO		AGTPP	evacuation	Not applicable	No	No	1		5/2/2016 14:06	No SPS	
	AGTPP U 3	NEEPCO		AGTPP	problem	Not applicable	No	No	1		5/1/2016 21:30	No SPS	
	125 MVA, 400/132 kV ICT at Palatana	OTPC	20:13:50	Palatana	Neutral HV earth fault protection	Not applicable	Yes	No			5/1/2016 20:27	No SPS	
	132 kV Surjamaninagar-	POWERGRID	20:13:54	Surjamaninagar	Loss of V-lt-	Not applicable	No	No			5/1/2016 21-26	No SPS	
	Palatana I	FUWERGRID	20:15:54	Palatana	Loss of Voltage	Not applicable	Yes	No]		5/1/2016 21:36	10 212	
195	Palatana GTG I	OTPC	20:13:56	Palatana	Tripped due to absence of Auxilliary supply	Not applicable	Yes	No			5/1/2016 22:19	SPS 1 operated	
	Palatana STG I	OTPC		Palatana	Tripped due to tripping of GTG I	Not applicable	Yes	No			5/1/2016 23:38	SPS 1 operated	
	FIR by the constituent	Yes(OTPC,TSE	CL,AGTPP)										

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janu	uary 2016				
क्रम सं छ्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Brief Description of the Incident	Teliamura line, shutdown from Teliamura line t along with AGT Palatana GTG I	t of Tripura system, Part of Bangladesh system and AGTPP system were connected with rest of NER Grid through 132 kV Agartala - Dhalabil (Khowai) line, 132 kV Ambasa - iamura line, 132 kV AGTPP - Kumarghat line and 125 MVA, 400/132 kV ICT at Palatana (132 kV Udaipur - Palatana line & 132 kV Surjamaninagar-Comilla II line was under tdown from 13:55 Hrs on 01.05.16 & from 16:29 Hrs on 01.05.16) respectively. At 19:54 Hrs on 01.05.16, 132 kV Agartala - Dhalabil (Khowai) line & 132 kV Ambasa - iamura line tripped. Due to tripping of these elements, the network got reduced. At 20:07 Hrs on 01.05.16, 132 kV AGTPP - Agartala I & II lines, 132 kV AGTPP - Kumarghat line ng with AGTPP U I,II & II tripped. At 20:13:50, 125 MVA 400/132 kV ICT at Palatana tripped resulted in loss of power supply to gas boost compressor and subsequent tripping of atana GTG I and STG I units. Due to tripping of these elements, Part of Tripura system, Part of Bangladesh system (Comilla area) and AGTPP system were separated from rest of R Grid and subsequently collapsed due to load generation mismatch.										
	Antecedent Conditions of NER Grid	(पूर्ववृत्ता उत्पादन/ Antecedent Generation : 1642 MW , पूर्ववृत्ता लोड/ Antecedent Load : 1652 MW)											
	Root Cause	Likely due to no Kumarghat end.	kely due to non clearance of downstream fault in the Tripura System, 132 kV AGTPP - Agartala I&II line tripped at AGTPP end and 132 kV AGTPP - Kumarghat line tripped at amarghat end.										
	Remedial Measures	Agartala I&II lir	nes, to save gener	GTPP - Kumargha ation of AGTPP. N POWERGRID and	EEPCO to furnis	sh DR of the even	t at the earlies	st for further a	analysis.Agarth				

			List of	Grid Distur	bances in North	-Eastern Reg	ional Grid	during Jan	uary 2016				
क्रम सं छ्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	400 kV BgTPP - Bongaigaon I	POWERGRID		BgTPP	Busbar differential protection Direct Trip	Not applicable Not applicable	No Yes	No			3/2/2016 14:00	No SPS	
	400 kV BgTPP -	POWERGRID	3/2/2016 12:42	Bongaigaon BgTPP	received Busbar differential protection	Not applicable	No	No	Loss of Generation:	GD-II	3/2/2016 15:02	No SPS	1.935
	Bongaigaon II			Bongaigaon	Direct Trip received	Not applicable	Yes	No	151				
196	BgTPP U 1	NTPC	3/2/2016 12:42	BgTPP	Tripped due to operation of Busbar differential protection	Not applicable	No	No			3/3/2016 1:23	No SPS	
	FIR by the constituent	No			· · ·		•				•		84
	Brief Description of the Incident				ted with rest of NE ation problem, Bg			gaon-BgTPP((NTPC) I & II l	ines. At 12:42	2 Hrs on 02.03.1	6 , 400 kV Bo	ongaigaon-
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent (Generation : 11	23 MW , पूर्ववृत्ता	लोड/ Antecedent	Load : 1370	MW)					
	Restoration Details	Power extended	to BgTPP at 14:	00 Hrs on 02.03	3.16 through 400 kV	/ BgTPP - Bonga	igaon I line.						
	Root Cause	During the testir	ng at NTPC, bush	ar protection of	perated and both fe	eders were in sam	e bus.						
	Remedial Measures	NTPC shall lool	c in to this matter	as early as pos	sible.								

			List of	Grid Distur	bances in North	-Eastern Reg	ional Grid	during Jan	uary 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Loktak - Imphal (PG)	POWERGRID		Loktak Imphal (PG)		Not applicable Not applicable	Yes No	No No			4/25/2016 15:56	No SPS	
	()			Loktak		Not applicable	Yes	No	1				
	132 kV Loktak - Jiribam	POWERGRID		Jiribam (PG)	Back Un Farth	Not applicable	No	No	Loss of Load: 14		4/25/2016 16:13	No SPS	
	132 kV Loktak -		4/25/2016 15:37	Loktak	Hand Tripped	Not applicable	Yes	No	1	GD-I			0.005
	Ningthoukhong	MSPCL		Ningthoukhon g	Over current	Not applicable	No	No			4/25/2016 15:55	No SPS	
	Loktak U 1	NHPC		Loktak	Tripped due to	Not applicable	No	No	Loss of		4/25/2016 16:20	No SPS	
	Loktak U 2	NHPC		Loktak		Not applicable	No	No	Generation:		4/25/2016 16:06	No SPS	
197	Loktak U 3	NHPC		Loktak	associated lines	Not applicable	No	No	103		4/25/2016 15:59	No SPS	
	FIR by the constituent	No											
	Brief Description of the Incident Loktak Power Station was connected with rest of NER Grid through 132 kV Loktak-Imphal(PG) line, 132 kV Loktak-Jiribam line & 132 Loktak-Ningthoukhong line(132 kV Rengpang - Jiribam(MA) is under long outage & 132 kV Imphal - Ningthoukhong line tripped at 10:30 Hrs on 25.04.16 and was not restored). At 15:37 Hrs on 25.04.16, 132 kV Loktak-Imphal(PG) line tripped . Due to evacuation problem, Loktak Power Station was blacked out.												
	Antecedent Conditions of NER Grid	(पूर्ववृ त्ता उत्पाद	न/ Antecedent (Generation : 10	96 MW , पूर्ववृ त्ता	लोड/ Antecedent	Load : 1370	MW)					
	Root Cause	Due to non oper	ation of any prot	ective relay at L	oktak it could not b	be ascertained wh	ether the fault	was in Jiriba	ım - Loktak line	or Loktak -	Ningthoukhong li	ne.	
	Remedial Measures	Loktak to furnis	h detailed report	explaining non	clearance of fault a	t Loktak end. Lol	tak&Imphal(PG) shall sub	mit DR output	pertaining to	the event.		

			List of	Grid Distur	bances in North	n-Eastern Reg	ional Grid	during Jar	nuary 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV AGTPP -	POWERGRID		AGTPP	No tripping	Not applicable	No	No			5/2/2016 15:50		
	Kumarghat			Kumarghat	DP, ZIII, Y-B-E	11	Yes	No					
	132 kV AGTPP -	POWERGRID		AGTPP	DP, ZIII, B-E	Not applicable	No	No	Loss of Load:		5/2/2016 16:25		
	Agartala I			Agartala	No tripping	Not applicable	No	No	0				
	132 kV AGTPP -	POWERGRID	5/2/2016 15:43	AGTPP	DP, ZIII, B-E	Not applicable	No	No	_	GD-I	5/2/2016 19:54	SPS 6	0.009
	Agartala II			Agartala	No tripping	Not applicable	No	No				operated	
	AGTPP U 2	NEEPCO		AGTPP	Tripped due to	Not applicable	No	No	Loss of		5/4/2016 18:49		
	AGTPP U 3	NEEPCO		AGTPP	evacuation	Not applicable	No	No	Generation:		5/2/2016 17:23		
	AGTPP U 4	NEEPCO		AGTPP	problem	Not applicable	No	No	73		5/2/2016 16:45		
	AGTPP STG II	NEEPCO		AGTPP	I ····	Not applicable	No	No			5/2/2016 21:19		
	FIR by the constituent	No											
198	Brief Description of the Incident				of NER Grid throug Kumarghat line tri						ne.At 15:43 Hrs o	on 02.05.16 ,	132 kV
Antecedent Conditions of NER Grid (पूर्ववृत्ता उत्पादन/ Antecedent Generation : 1277 MW , पूर्ववृत्ता लोड/ Antecedent Load : 1137 MW)													
	Root Cause	Likely due to no tripped at Kuma		ownstream fault	in the Tripura Syst	tem at Agarthala,	132 kV AGTF	P - Agartala	I&II line trippe	d at AGTPP o	end and 132 kV A	GTPP - Kum	arghat line
	Remedial Measures	Agartala I&II lii	nes, to save gener	ration of AGTP	ghat line to be incre P. NEEPCO to furn and OTPC are requ	hish DR of the eve	ent at the earli	est for furthe	r analysis.Agar				

			List of	Grid Distur	bances in North	-Eastern Reg	ional Grid	during Jan	uary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	सीआर ऑपरेटर द्वारा प्रदान की तिथि और समय या बहाली / Date and time of restoration provided by CR operator	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	132 kV Doyang -	DoP Nagaland		Doyang	Directional Earth Fault	Not applicable	No	No			6/15/2016 19:17	No SPS	
	Mokokchung(NA)	6		Mokokchung(NA)		Not applicable	No	No					_
			6/15/2016	Dimapur	Not Furnished	Not applicable	No	No	Loss of				-
	132 kV Dimapur - Doyang II	POWERGRID	18:20	Doyang	VT fuse fail, 3- Ph trip relay operated	Not applicable	No	No	Generation: 51	GD-I	6/15/2016 18:25	No SPS	
	Doyang U 1	NEEPCO		Doyang		Not applicable	No	No	1		6/15/2016 18:47	No SPS	
	Doyang U 2	NEEPCO		Doyang	Over speed	Not applicable	No	No	1		6/15/2016 18:44	No SPS	0.02
199	Doyang U 3	NEEPCO		Doyang	protection	Not applicable	No	No	1		6/15/2016 18:55	No SPS	
	FIR by the constituent	Yes Dovang Power S	Station was conn	ected with rest of	of NER Grid throug	h 132 kV Dovan	2- Dimapur II	line & 132 k	V Dovang-Mok	okchung(NA) line (132 kV Do	vang- Dimap	ur I line
	Brief Description of the Incident	was under emerg		from 20:32 Hrs	on 14.06.16). At 18								
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1972	MW , Anteced	lent Load : 2027 N	IW)							
	Root Cause												
	Remedial Measures												
	1001110			Dimapur		Not applicable	No	No	4				
	132 kV Dimapur - Doyang II	POWERGRID	6/15/2016 18:56	Doyang	3-Ph trip relay operated,No other indication	Not applicable	No	No	Loss of Generation:	GD-I	6/15/2016 18:58	No SPS	-
	Doyang U 1	NEEPCO	10:50	Doyang	Over speed	Not applicable	No	No	30		6/15/2016 19:35	No SPS	
	Doyang U 2	NEEPCO		Doyang	protection	Not applicable	No	No	J		6/15/2016 19:26	No SPS	0.014
	Doyang U 3	NEEPCO		Doyang	protection	Not applicable	No	No			6/15/2016 19:20	No SPS	
200	FIR by the constituent	Yes											

			List of	Grid Distur	bances in North	-Eastern Reg	ional Grid	during Jan	uary 2016				
क्रम सं ख्या/ SI. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	नोड के नाम / Name of Node	सीआर ऑपरेटर द्वारा प्रदान की 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)	output furnished within 24	प्रभाव (मेगावाट में लोड और उत्पादन की हानि) / Effect (Loss of Load & Generation in MW)	श्रेणी सीईए ग्रिड मानकों के अनुसार / Category as per CEA Grid Standards	nrovided by	एसपीएस संचालन के विवरण / Details of SPS Operation	एमयू में हानि/ Loss in MU
	Brief Description of the Incident	Hrs on 14.06.16	yang Power Station was connected with rest of NER Grid through 132 kV Doyang- Dimapur II line (132 kV Doyang- Dimapur I line was under emergency shutdown from 20:32 s on 14.06.16 & 132 kV Doyang-Mokokchung(NA) line tripped at 18:20 Hrs on 15.06.16 and was not restored). At 18:56 Hr on 15.06.16, 132 kV Doyang- Dimapur II line oped. Due to evacuation problem, Doyang Power Station was blacked out.										
	Antecedent Conditions of NER Grid	(Antecedent Ge	edent Generation : 2052 MW , Antecedent Load : 2302 MW)										
	Root Cause Remedial Measures												

Annexure – A.13

A meeting was held at NERLDC between NERPC, NERLDC and constituents of NER as per directive of Hon'ble CERC in response to Petition No. 113/MP/2014 on 29.12.14.

The constituents of NER agreed upon the following:

- **a.** Testing of all existing relays and schemes within 2 months by all constituents to assess the healthiness of existing protective relays
- Review of relay settings based on history of tripping and non-availability of Distance Protection Relays would be done.
- c. Attempts would be made to avoid any tripping on account of vegetation growth, which is frequent in NER
- d. Single Phase / Three phase Auto Reclose Scheme of transmission lines of voltage level 132 kV and above under List of Important Grid Elements of NER are to be adopted, wherever available. The status of implementation will be monitored in monthly OCC/PCC meetings.

It is requested to power utilities of NER to intimate the latest status of the above activities.

Many of tripping of transmission & distribution lines occurred due to vegetation problem. Tripping of transmission & distribution lines can be reduced if bush/jungle cutting done regularly. It was observed that number of tripping of transmission & distribution lines increases during the period of monsoon.

Deliberation in the Meeting:

It was requested to all the constituents to send monthly status report of the activities decided during joint meeting among NERLDC, NERPC & constituents of NER on 29.12.14. It was suggested that proper patrolling are to be done after tripping any elements and patrolling reports are to be submitted by the concerned utility to NERLDC & NERPC. It was requested to all transmission utilities of NER for furnishing monthly report on trimming of trees.

The Sub-committee once again requested all the constituents to carry out the above suggestions as decided earlier for safety of the grid.

Action: All Power Utilities.

<u>Grid Disturbance Report</u>

	Details of Grid	Disturban	ce (GD) during th	me Month of (<u>Mo</u>	<u>nth and Year</u>)	, in	Region
Sl No.	Category of Grid Disturbance (GD-I to GD-V)	Affected Area	Time and Date of occurrence of Grid Disturbance	Time and Date of Restoration	Duration	Loss of generation / loss of load during the Grid Disturbance (MW)	Brief details of the event (pre fault and post fault system conditions)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Note:

Categorization of Grid Disturbance: Refer Regulation 11(2) of Central Electricity Authority (Grid Standard) Regulations, 2010

<u>GD-I:</u> - When less than ten per cent of the antecedent generation or load in a regional grid is lost.

<u>GD-II</u>:- When ten per cent to less than twenty percent of the antecedent generation or load in a regional grid is lost.

<u>GD-III</u>:- When twenty per cent. to less than thirty per cent. of the antecedent generation or load in a regional grid is lost.

<u>GD-IV</u>:- When thirty per cent. to less than forty per cent. of the antecedent generation or load in a regional grid is lost.

<u>GD-V</u>:- When forty per cent. or more of the antecedent generation or load in a regional grid is lost.