

भारत सरकार Government of India विद्युत मंत्रालय Ministry of Power

उत्तर पूर्वी क्षेत्रीय विद्युत समिति

North Eastern Regional Power Committee

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



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Dated: October 07, 2016

No. NERPC/SE/PCC/2016/2277-2314

To,

- 1. Managing Director, AEGCL, Bijuli Bhawan, Guwahati 781 001
- 2. Managing Director, APDCL, Bijuli Bhawan, Guwahati 781 001
- 3. Managing Director, APGCL, Bijuli Bhawan, Guwahati 781 001
- 4. Director (Generation), Me. PGCL, Lumjingshai, Short Round Road, Shillong 793 001
- 5. Director (Distribution), Me. ECL, Lumjingshai, Short Round Road, Shillong 793 001
- 6. Director(Transmission), Me. PTCL, Lumjingshai, Short Round Road, Shillong 793 001
- 7. Managing Director, MSPDCL, Electricity Complex, Keishampat, Imphal 795 001
- 8. Managing Director, MSPCL, Electricity Complex, Keishampat, Imphal 795 001
- 9. Director (Tech), TSECL, Banamalipur, Agartala 799 001
- 10. Director (Tech), TPGL, Banamalipur, Agartala 799 001
- 11. Chief Engineer (WE Zone), Department of Power, Govt. of Arunachal Pradesh, Itanagar-791111
- 12. Chief Engineer (EE Zone), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791111
- 13. Chief Engineer (TP&MZ), Department of Power, Govt. of Arunachal Pradesh, Itanagar-791111
- 14. Engineer-in-Chief (P&E), Department of Power, Govt. of Mizoram, Aizawl 796 001
- 15. Chief Engineer (P), Department of Power, Govt. of Nagaland, Kohima 797 001
- 16. CGM, (LDC), SLDC Complex, AEGCL, Kahilipara, Guwahati-781 019
- 17. General Manager, TSECL, Agartala 799 001
- 18. Group General Manager, NTPC, Bongaigoan Thermal Power Project, P.O. Salakati, Kokrajhar- 783369
- 19. General Manager (Coml.), NTPC, 3rd Floor, OLIC Bldg., Pl No- N.17/2, Nayapalli, Bhubaneswar-12
- 20. ED, NERTS, PGCIL, Dongtieh-Lower Nongrah, Lapalang, Shillong -793 006
- 21. ED (O&M), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
- 22. ED (Commercial), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
- 23. ED (O&M), NHPC, NHPC Office Complex, Sector-33, Faridabad, Haryana-121003
- 24.GM (Plant), OTPC, Badarghat Complex, Agartala, Tripura 799014
- 25. GM, NERLDC, Dongtieh, Lower Nongrah, Lapalang, Shillong -793 006

Sir,

The minutes of the 44th Protection Co-ordination Committee (PCC) of NERPC held on 20th September 2016 (Tuesday) at Hotel Nandan, Guwahati at 10:00 hrs. is sent herewith for your kind perusal and necessary actions of all concerned.

भवदीय / Yours faithfully,

(एल. बी. मुआनथंग/ L. B. Muanthang)

अधीक्षण अभियंता / Superintending Engineer

Copy to:

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

निदेशक / Director/ SE

North Eastern Regional Power Committee

MINUTES OF THE 44TH PROTECTION COORDINATION SUB-COMMITTEE MEETING OF NERPC

Date of Meeting : 20/09/2016 (Tuesday)

Time of Meeting : 10:00 hrs

Venue : "Hotel Nandan", Guwahati.

The List of Participants in the 44th PCC Meeting is attached at **Annexure - I**.

Member Secretary, NERPC stressed the need more and active participation of members from the constituents by attaching greater importance to the protection system problem in the region. He took exception to the thin participation of members and told the forum that this fact will be taken up for discussion in the higher forum. He then asked Shri Brieflee Lyngkhoi, SE(O),NERPC to take up the agenda for discussion.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF THE MINUTES OF 43RD MEETING OF PROTECTION SUB-COMMITTEE OF NERPC

SE(O) informed that the minutes of 43rd meeting of Protection Sub-committee held on 13th July, 2016 at Guwahati were circulated vide letter No. NERPC/SE (O)/PCC/2015/4520-4555 dated 20th May, 2016.

As no comments/observations were received from any of the constituents, the Sub-Committee confirmed the minutes of 43rd PCCM of NERPC

ITEMS FOR DISCUSSION

A.1 <u>Implementation of 3-phaseAuto Reclosure Scheme in all lines associated with Khandong and Kopili HEP:</u>

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 Halflong
- b) 132kV Kopili Khandong #1

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.

The 43rd PCC 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.

Deliberation in the meeting

SE(O) informed that this forum had resolved that the implementation of 3-phase Auto Reclosure in all the lines associated with Khandong and Kopili Generating Stations is to be completed within the given time-frame and enquired the current status from the concerned utilities. NEEPCO representative stated that panels are to be shifted within 2 or 3 days and then commissioning to be done by AEGCL by 30th September 2016. The A/R at the Kopili-end of the lines are yet to be installed by PGCIL. This work is to be completed with the coordination of NERPC who will fix a date for joint inspection by the parties.

The Sub-committee noted as above.

Action: NEEPCO, AEGCL, NERPC and NERTS.

A.2 <u>Implementation of the recommendations of the Protection Audit:</u>

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 42nd PCC meeting is given below:

Status of subr	mission of data related	I to Third Party Protection	n Audit
Name of Constituent	As per format of Task Force	As per format of NERPC	Remarks
DoP, Ar. Pradesh	Not submitted	Submitted	Remarks Data as per format of Task Force to be submitted by 30.05.2016 Data as per format of NERPC for Surajmaninagar & Rabindranagar and Data as per Task For Format for all sub-
AEGCL	Partly submitted	Partly Submitted	
TSECL	Not submitted	Submitted	Surajmaninagar & Rabindranagar and
			Data as per Task Force Format for all sub- stations by 30.05.2016

NEEPCO AGTPP Not submitted as per format	Not Submitted as per format	Data for AGTPP as per Task Force format by 30.05.2016
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After detailed deliberation in 43rd PCCM, the Sub-committee had decided that those who have not submitted the data as per format of Task Force in Annexure A.3 (I) & also, as per the format of NERPC in Annexure A.3 (II) for 3rd Party Protection Audit are requested to furnish these data by 31.07.2016 positively.

Deliberation in the meeting

As the compliance status of the implementation of the recommendations of the Third Party Audit by the constituents had not been satisfactory it is stressed that all the utilities has to comply with the CERC directions at an early date. Audit work will be taken up after finalization of activities that are to be done during the third party protection audit. Sub group to finalize the activities for third party protection audit at the earliest. Subgroup to take up with Assam, Ar. Pradesh and NEEPCO for furnishing the information. Decisions by subgroup on relay settings and other related matters are to be implemented immediately.

The Sub-committee noted as above.

Action: All Constituents.

A.3 Status of R&M Implementation of NER from PSDF:

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. 356.50 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: NIT for Rs. 2.51 Crores & LOAs – Rs. 2.51 Cr out of Rs. 32.43 Crores. Other NITs in progress and LOAs will be completed by June - July, 2016

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.

During the 43rd PCCM, 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

Deliberation in the meeting

SE(O) informed that the status of R&M implementation in NER is progressing very slowly and stressed the need for implementation by the utilities within the given time-frame of CERC. It is resolved that NERPC will regularly monitor the progress of the implementation in each state. Technical review of implemented works also to be done. State transmission licensees are requested to furnish item wise physical progress report of R&M works under PSDF fund in tabulated format on monthly basis. SE(O) to update the status and will be put up in the RPC meeting.

The Sub-committee noted as above.

Action: NERPC

A.4 Root cause analysis of tripping in Southern Part of NER on 08.08.2015 and 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.

During the 43rd PCCM, 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 12th System Studies sub-group meeting was held on 30th August 2016 and the minutes of the meeting attached at Annexure - I.

2. 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 Sub-committee 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.

During the 43rd PCCC, 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.

During the 124th OCCM, DGM(AM), NERTS suggested that rather than physically changing the phase notation at Azara end, the matching phases of Silchar and Azara be noted for future analysis. After detailed deliberation the forum agreed to the proposal and decided to drop the agenda item.

It was decided that wherever problem of mismatch in phase-notations arises, is to be listed out by the concerned utility.

Deliberation in the meeting

OTPC representative informed that SPS-III modification was implemented on 09.09.2016 and SPS-II is to be implemented by the end of September 2016. ICT-2 will be charged before puja.

It is decided that empowered sub-groups to be formed through NERPC to implement Ramakhrishna Recommendations. Sub-group will finalize the zone II & zone -III settings by end of Sep'16. Time frame for implementing settings suggested by Ramakrishna taskforce will be intimated by NERPC. NERLDC to circulate the settings suggested by POWERGRID on recommendations given by Ramakrishna taskforce.

The Sub-committee noted as above.

Action: NERPC, NERLDC & NERTS

A.5 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 July, 2016 to 31st August, 2016:-

SI	Control	Grid Incidents	Grid Disturbance	Grid Incidents	Grid Disturbance
No	Area	Jul'16 to Aug'16	Jul'16 to Aug'16	During 2016	During 2016
1	Palatana	3	1	9	1
2	AGBPP	3	0	13	2
3	AGTPP	6	2	23	2
4	Ranganadi	0	1	0	1
5	Kopili	3	1	1	1
SI	Control	Grid Incidents	Grid Disturbance	Grid Incidents	Grid Disturbance
No	Area	Jul'16 to	Jul'16 to	During	During
		Aug'16	Aug'16	2016	2016
6	Khandong	4	1	3	1

Minutes of the 44th PCC Meeting Doyang Loktak BqTPP Arunachal Pradesh Assam Manipur Meghalaya Mizoram Nagaland

Tripura

SI.	Category	Grid Dist	urbance in nos
No.	of GD/GI	Jul'16 to Aug'16	During 2016
1	GI-I	13	36
2	GI-II	13	31
3	GD I	68	219
4	GD II	2	4
5	GD III	0	0
6	GD IV	1	0
7	GD V	0	1
8	Total GI	26	67
9	Total GD	71	224

This is for information to the members. Remedial Measure are to be taken by the concerned power utilities of NER.

A.6 Analysis & Discussion on Events, Grid Incidences, Grid Disturbances which occurred in NER Grid w.e.f July'16 to August'16.

The following are the major & minor disturbances occurred in NER Grid w.e.f. July'16 to August'16.

I. Grid Disturbance (GD-IV) in NER on 09.07.16 at 1319 Hrs.

A major disturbance of category GD-IV occurred in NER Grid on 09.07.16 at 1319 Hrs.

It was proposed in 42nd PCC Meeting of NERPC to constitute Enquiry Committee for analysis of Grid Disturbances of Category-IV and V with independent members for root cause analysis.

Empowered Committee meeting took place on 31.08.16 to analyze GD-IV and GD-V in NER. It was concluded that the root cause for GD-IV was the simultaneous lightning strike at tower locations 466 & 467 on 400 kV Silchar – Azara and 400 kV Silchar – Byrnihat lines, which led to multi-phase fault and further tripping of these lines. Due to multi-phase fault, Auto-reclose could not operate.

The forum requested OTPC to take adequate steps in modification of SPS-3 so that such types of incidences do not recur due to delay in backing down of Palatana units.

NERLDC requested that reports of operation of UFRs to be furnished timely from SLDCs of NER Grid, which are necessary for proper analysis of causes of grid failure.

Deliberation in the meeting

SE(0), NERPC recommended that since the event occurred due to lightning the Agenda item may be dropped. *The Sub-committee noted as above.*

Action: Agenda item to be dropped.

II. Balipara Substation Blackout:

1 No of disturbance occurred due to tripping of all lines emanating from Balipara Substation (SI No. 2 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of all lines emanating from Balipara Substation, Khupi area, Ziro area, Lekhi area & Capital area of Arunachal Pradesh and Pavoi, Gohpur & Depota area of Assam were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch in this area.

Root Cause Analysis:

No trace of reason for Bus-fault found by inspection at Balipara by POWERGRID. Suspected reasons are due to short circuit caused by Monkey (found to be climbing in Gantry in CCTV footage) or due to the earth fault caused by construction work. But, fault in one bus should not have caused tripping of both buses. Problems rectified by PG in co-ordination with CC, POWERGRID as informed by NERTS.

Remedial Measure to be taken:

Ranganadi end Distance Protection relay time delay setting to be modified from 350 msec to around 600 msec, since Rangandi -Biswanath Charali length is more than Biswanath Charali - Balipara line, to be in consistence with recommendations of V.Ramakrishna Task Force committee.

III. Disturbances in Arunachal Pradesh System:

Total 15 Nos Disturbances have occurred in Arunachal Pradesh system during the month of July'16 to August'16. (SI No. 3 to 17 of Disturbance Report of NER Grid attached in Annexure-I)

1 No of disturbance occurred due to tripping of 132 kV Lekhi – Nirjuli line, while Bus Coupler CB of Gohpur kept open for system requirement (SI No. 3 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of this element, Nirjuli area of Arunachal Pradesh and Gohpur Area (Gohpur Load) 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. 3: The element tripped due to downstream vegetation fault.

Remedial Measure to be taken:

For SI. No. 3: Vegetation clearance to be done by DoP Arunachal Pradesh / POWERGRID and the progress to be reported.

A. Khupi Area:

13 Nos disturbances occurred due to tripping of 132 kV Balipara- Khupi line, (SI No. 4 to 16 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:

There were vegetation and ground clearance problems in 132 kV Balipara – Khupi line.

Remedial Measure to be taken:

Vegetation clearance is to be done by NEEPCO. NEEPCO applied for shutdown of 132 kV Balipara – Khupi line to clear vegetation problem. Further progress to be intimated by NEEPCO.

B. Capital Area:

1 No disturbance occurred due to tripping of 132 kV Ranganadi- Lekhi line, (SI No. 17 of Disturbance Report of NER Grid attached in Annexure-I).

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

Root Cause Analysis:

Over current relay operated at Lekhi for line flow of around 40 MW(from SCADA). DR outputs from Lekhi end to be submitted by POWERGRID to conclude the root cause.

Remedial Measure to be taken:

Lekhi & Ranganadi over current settings to be reviewed. Sub group Committee for GD-GI analysis suggested POWERGRID and NEEPCO to implement over current relay settings as PSM = 1 with CT ratio 600/1 (Power flow during peak hours of approximately 85 – 90 MW should not cause tripping of the line).

Directionality feature of Over Current as well as Earth fault relay to be enabled at Lekhi - **This item is dropped**.

IV. Disturbances in Assam System:

Total 4 Nos Disturbances have occurred in Assam system during the month of July'16 to August'16. (SI. No. 18 to 21 of Disturbance Report of NER Grid attached in Annexure-I).

A. Dullavcherra Area:

2 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. 18 &19 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. Root cause could not be concluded due to DR unavailability and unavailability of Relay indications from AEGCL.

Remedial Measure to be taken:

Vegetation problem in the line is to be checked by AEGCL. Frequent patrolling is to be done by AEGCL and Patrolling report to be submitted.

B. Halflong Area & Umrangshu Area:

1 No of disturbance occurred due to tripping of 132 kV Haflong (PG)- Haflong(S) line (SI No. 20 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 No of disturbance occurred due to tripping of 132 kV Khandong – Umrangshu line and 132 kV Haflong- Umrangshu line (SI No. 21 of Disturbance Report of NER Grid attached in Annexure-I).

Due to tripping of this element, Umrangshu area 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. 20 Earth fault at downstream of Haflong (PG) cleared at Haflong(PG). Nature of fault is to be furnished by AEGCL.

For SI No. 21 Due to vegetation problem.

Remedial Measure to be taken:

For SI No. 20 Relay co-ordination at downstream level to be done by AEGCL in consultation with POWERGRID.

For SI No. 21 Vegetation clearance is to be done by POWERGRID & AEGCL. Patrolling report is to be submitted and status of vegetation clearance to be reported by POWERGRID & AEGCL.

V. Disturbances in Manipur System:

Total 4 Nos. Disturbances have occurred in Manipur system during the month of July'16 to August'16. (SI No. 22 to 25 of Disturbance Report of NER Grid attached in Annexure-I).

A. Capital & Karong Areas:

1 No of disturbances occurred due to tripping of 132 kV Imphal (PG)- Imphal (Manipur) I & II lines, **(SI No. 22 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 132 kV Silchar – Imphal 1 line. Due to this fault, transformer at Imphal (MA) tripped.

Remedial Measure to be taken:

Relay coordination has to be done by MSPCL in consultation with POWERGRID. Reason for tripping of Transformer at Imphal(MA) to be furnished by MePTCL.

B. Ningthoukhong Area:

3 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. 23 to 25 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 due to vegetation problem in the downstream of Ningthoukhong, 132 kV Loktak - Ningthoukhong line tripped. For further analysis, SLDC, MSPCL shall furnish relay indication pertaining to their end as well as patrolling report.

Remedial Measure to be taken:

Vegetation clearance and tower footing resistance are to be checked by MSPCL. POWERGRID is requested to visit Ningthoukong and check relay co-ordination after renovation work has been done by MSPCL.

VI. Disturbances in Meghalaya System:

Total 13 Nos. Disturbances have occurred in Meghalaya system during the month of July'16 to August'16. (SI No. 26 to 38 of Disturbance Report of NER Grid attached in Annexure-I).

A. Khliehriat Area:

12 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 was 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 mostly due to vegetation or lightning.

Remedial Measure to be taken:

Status of earthing work related to Khliehriat (ME) substations is to be furnished by MePTCL. Tower footing resistance is also to be checked and in case of more than 10 ohms, proper earthing has to be done by MePTCL and explore the possibility to install tower LAs. The earthing work of Distribution side of Khliehriat (MePTCL) substation is also to be completed, and relays co-ordinated with upstream.

Relay settings of Meghalaya substations are to be checked by MePTCL in coordination with POWERGRID after the completion of earthing works.

B. Lumshnong Area:

1 No. of disturbances occurred due to tripping of 132 kV Panchgram - Lumshnong line, while 132 kV Lumshnong - Khliehriat line kept open for system requirement. (SI No. 38 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. Patrolling report is to be submitted and status of vegetation clearance is to be reported by MePTCL & AEGCL.

VII. Disturbances in Mizoram System:

Total 4 Nos. Disturbances have occurred in Mizoram system during the month of July'16 to August'16. (SI No. 39 to 42 of Disturbance Report of NER Grid attached in Annexure-I).

A. Kolasib Area:

1 Nos disturbance occurred due to tripping of 132 kV Kolasib - Badarpur line & 132 kV Kolasib - Aizwal lines, (SI No. 39 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:

Due to fault in the downstream of Kolasib, the lines tripped.

Remedial Measure to be taken:

Relay settings of downstream stations to be furnished to POWERGRID by P&ED Mizoram. POWERGRID to review settings and suggests new settings to avoid tripping of in-feeds to Mizoram. Mizoram to adopt suggested relay settings, and intimate status to PCC forum.

B. Zuangtui Area:

3 Nos. disturbances occurred due to tripping of 132 kV Aizawl - Zuangtui line, (SI No. 40 to 42 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:

Due to downstream phase to phase fault, 132 kV Aizawl - Zuangtui line tripped.

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 in downstream of Zuangtui. Aizawl (PG) to submit DRs in respect of trippings.

VIII. Disturbances in Nagaland System:

Total **24 Nos**. Disturbances have occurred in Nagaland system during the month of July'16 to August'16. **(SI No. 43 to 67 of Disturbance Report of NER Grid attached in Annexure-I)**.

A. Mokokchung Area:

2 Nos disturbances occurred due to tripping of 132 kV Doyang - Mokokchung (NA) line, (SI No. 43 to 44 of Disturbance Report of NER Grid attached in Annexure-I).

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 fault in the line, 132 kV Doyang - Mokokchung (NA) line tripped.

Remedial Measure to be taken:

Vegetation clearance is to be done by DoP, Nagaland. NEEPCO is to change static relays to Numerical relay or install separate DR in Doyang HEP so that proper analysis can be done for disturbances associated with Doyang HEP. Patrolling report associated to these events is to be submitted by DoP Nagaland.

B. Dimapur Area:

6 Nos. disturbances occurred due to tripping of 132 kV Dimapur (PG) - Dimapur (NA) I line while 132 kV Dimapur (PG) - Dimapur (NA) II line is under shutdown since 18th April'16, **(SI No. 45 & 50 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:

Fault was due to downstream vegetation since 132 kV Dimapur (PG) - Dimapur (NA) I line is a short line and fault was cleared at Dimapur (PG).

Remedial Measure to be taken:

Relay settings of downstream stations of Nagaland is to be checked by DoP, Nagaland in consultation with POWERGRID. Circuit Breaker problem of Kohima feeder at Dimapur(PG) has been rectified.

Normalization of 132 kV Dimapur (PG) - Dimapur (Nagaland) II line could not be done due to pending consent from DoP Nagaland.

Relay settings of downstream stations to be submitted to POWERGRID by DoP Nagaland for further co-ordination.

Patrolling report is to be submitted and Status of vegetation clearance to be reported by DoP Nagaland.

C. Capital Area:

17 Nos. disturbances occurred due to tripping of 132 kV Dimapur (PG) - Kohima line, (SI No. 51 to 67 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. Patrolling report is to be submitted and status of vegetation clearance to be reported by DoP Nagaland.

IX. Disturbances in Tripura System:

Total 1 No. of Disturbance has occurred in Tripura system during the month of July'16 to August'16. (SI No. 68 of Disturbance Report of NER Grid attached in Annexure-

I).

1 No disturbances occurred in Tripura system due to tripping of 132 kV AGTPP – Kumarghat line while 132 KV PK Bari – Dharmanagar line, 132 P K Bari- Kumarghat line and 132 KV Agarthala- Dhalabil line kept open for system requirement and 132 KV Agartala- Budhjung Nagar I & II lines, 132 KV Palatana-Udaipur line, 132 KV Surjamani Nagar- Budhjung Nagar I & II lines, 132 KV Surjamani Nagar - Agartala I & II lines were out of service.

Due to tripping of this element, Tripura system along with AGTPP system was separated from rest of NER Grid.

Root Cause Analysis:

Likely due to lightning fault in 132 kV AGTPP – Kumarghat line but yet to conclude due to absence of DR output. Kumarghat(PG) could not submit DR output due to some software issue as informed by POWERGRID.

Remedial Measure to be taken:

NEEPCO is to furnish DR of the event at the earliest for further analysis. SLDC, TSECL to maintain log of lines kept open for system requirement to avoid unnecessary confusions during real time operation. Further to be discussed. TSECL to provide inputs regarding their system configuration.

X. Power Station Black out:

Total **3 Nos.** Power station Black out incident occurred during the month of July'16 to August'16. (SI No. 69 to 71 of Disturbance Report of NER Grid attached in Annexure-I).

A. Kopili & Khandong Power Plants:

1 No disturbances occurred due to tripping of 220 kV Kopili - Misa I & II lines,132 kV Khandong - Khliehriat(PG) I&II lines and 132 kV Khandong - Umrangso line while 220 kV Kopili - Misa III line was under shutdown since 00:15 Hrs of 27.05.2016 due to CB problem at Kopili , **(SI No. 196 of Disturbance Report of NER Grid attached in Annexure-I).**

Due to evacuation problem, Kopili and Khandong were blacked out.

Root Cause Analysis:

Fault due to vegetation was in Misa-Kopili I line. This fault was cleared and line was reclosed successfully (concluded after analyzing DR outputs). But, the Line-2 tripped on Overcurrent at Kopili end (though current was only 320 A) and this needs to be rectified.

Remedial Measure to be taken:

Over Current setting to be rectified by NEEPCO at Kopili till Main-II Distance Protection is installed and in-built over current feature is to be enabled at Kopili.

B. Doyang Power Plant:

2 Nos. disturbances occurred due to tripping of 132 kV Dimapur - Doyang I & II lines and 132 kV Doyang- Mokokchung line was not restored after tripping. (SI No. 71&72 of Disturbance Report of NER Grid attached in Annexure-I).

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

Root Cause Analysis for SI No 71:

Vegetation fault was in 132 kV Dimapur - Doyang I. Fault was not cleared or cleared after a delay from Doyang end, which caused tripping of circuit II from Dimapur end.

Root Cause Analysis for SI No 72:

Fault was in 132 kV Dimapur - Doyang II line due to B-N lightning fault as concluded from DR output. Reason for tripping of other lines is to be investigated.

Remedial Measure to be taken for SI No 71:

NEEPCO to intimate details like reason for delayed clearance and settings of Earth fault relay. After receipt of relay settings from NEEPCO, there are to be properly coordinated.

Remedial Measure to be taken for SI No 72:

Distance Protection Relay time settings to be checked by NEEPCO at Doyang end and complete relay flag details for this event to be furnished by NEEPCO.

Deliberation in the meeting

The committee decided that those Substations that are connected directly to Grid are to be maintained properly. List of Substations directly connected to Grid are to be sorted out so as to maintain Grid healthiness. It is found that in many substations relay flag informations are not forthcoming. NEEPCO representative informed that the Static Relays installed at Doyang HEP will be replaced with Numerical Relays within a year.

POWERGRID to locate the lightning prone areas and suggest NETC to do the shield wire to ground earthing for both the 400 kV Silchar-Byrnihat & 400 kV Silchar - Azara lines.

Sleeving of of 33 kV system ICT at Balipara was suggested. Also hiring a skilled Langur to avoid tripping of elements due to monkeys was suggested.

For proper analysis of each event by subgroup, relay flag details of both end, patrolling report and DR & EL outputs are required. All the utilities of NER are requested to furnish these data within stipulated time.

It is decided that Root cause analysis for many disturbances related to state systems could not be concluded by the subgroup for GD-GI analysis due to unavailability of proper relay indications, DR&EL outputsand patrolling reports.

44th PCC forum found that the major reason for lacuna in furnishing of appropriate data to SLDCs, NERLDC & RPC is due to the inadequate trained manpower in the critical substations of states in NER. The subgroup is to identify the critical state substations where proper relay indications, DR&EL outputsand patrolling reports are required.

Accordingly, it was decided to add an agenda item in the upcoming RPC meeting regarding the manning up of critical substations of NER that belongs to state.

The Sub-committee noted as above.

Action: NERPC, NERLDC.

A.7 Root Cause Analysis of Major Grid Disturbance on 16th April 2016 and 09th July 2016:

There were 2 major grid disturbances in NER Grid in 2016.

A meeting of Empowered Committee for root cause analysis of the Grid Disturbances

was held on 31st August 2016.

The disturbance of Category-V on 16th April'16 was primarily caused by fault due to lightning strike on 400 kV Bongaigaon – BgTPP (NTPC) I line, which could not be cleared by 400 kV Bongaigaon (PG) end of the line, resulting in tripping of several 400 kV lines at Bongaigaon (PG) from remote ends at 400 kV Binaguri, since as per R-X diagram the fault was lying in the 4th quadrant outside the reach of Distance relay.

The empowered committee for analysis of this disturbance noted that there was no differential protection installed on 400 kV Bongaigaon – BgTPP lines although they were short lines of around 3 kms each. Also, the time setting of Zone-II relays at New-Siliguri end of 400 kV Bongaigaon – NewSiliguri Q/C lines were not as per recommendations of V.Ramakrishna Task Force report. Although there are 400 MW of UFR installed in NER Grid, the UFR operation was not sufficient as observed from PMU plots, even though frequency was below 49.2 Hz for several seconds.

The Disturbance of Category-IV on 09th July'16 was primarily due to multi-phase fault on account of simultaneous lightning strike at tower locations 466 & 467 on 400 kV Silchar – Azara and 400 kV Silchar – Byrnihat lines, and delay in backing down of generation from Palatana CCGT as per SPS-3.

The empowered committee suggested the following:

- 1) Relay settings of all elements in NER Grid to be made as per recommendations of V.Ramakrishna Task Force report.
- 2) All substations with List of long lines followed by short lines to be identified and relay settings implementation accordingly.
- 3) Line differential protection to be installed in all short lines.
- 4) UFR reports to be submitted by all constituents in case of any event, and periodic inspection of installed UFRs to be carried out for checking healthiness
- 5) Constituents to ensure healthiness of communication equipment to ensure that realtime voice or data communication is available to NERLDC
- 6) All requisite details like UFR operation reports, Relay indications, DR outputs, EL outputs, Generator DAS outputs, etc. to be furnished by constituents to enable proper analysis.

Deliberation in the meeting

SEO), NERPC suggested that DGM, NERLDC in consultation with EE , NERPC will prepare the list of longest and shortest line from each substations in NER. Then it will be circulated in the subgroup. List of lines where line differential protection to be installed to be discussed in next sub group meeting. He also suggested that items 4 and 6 may be dropped from the Empowered committee recommendation.

The Sub-committee noted as above.

Action: NERPC, NERLDC.

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

Name of Control Area	Disturbance	Remedial action suggested	Status
Assam	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. 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) - Over Current & Azara (AEGCL) - No Tripping) lines tripped	requested AEGCL to kindly attend the next Sub-Group meeting for review of zone-2 and zone-3 settings and other issues pertaining to co-ordination of relay settings. During43rd PCCM, Monitoring of installation of ICT referred to OCC. NERLDC also suggested to include review of Earth Fault (TEF) settings and co-ordinate with timings of Zone-2 and Zone-3.	
Manipur	Imphal(PG)- Iphal(MSPCL) I&II on 04.01.16,05.01.16, 12.01.16,14. 01.16, 21.01.16,24.01.16, 09.02.16,07.03.16,14.03.16, 19.03.16 & 26.03.16 Multiple tripping of 132 kV Loktak)- Ningthoukhong(MSPCL) On 01.02.16,19.03.16 & 31.03.16	DGM(AM), NERTS formed that for Imphal(PG)-Imphal(Man) settings for DP, EF/OC have reduced to isolate from faults in Manipur system. He suggested that R&M works need be expedited. After detailed deliberation the Sub-Committee suggested the following: 1) Yurembam & Ningthoukhong S/S R&M works to be checked Status reported by Expert (NERLDC/NERTS/NERPC). 2) Expert Committee to draw action plan for completion of balance activities. 3) After submission of report,	

	Minutes of the 44 th	3
		NERTS will decide timeline for restoration of settings to normalcy. The forum requested NERPC to write a letter to MD, MSPCL for this issue. During 43rd PCCM, Manager, MSPCL informed that R&M works at 132kV Yurembam & Ningthoukong S/Sn Completed in all respect(except) testing& commissioning). It was decided that a visit for assessment would be finalized after testing activities are completed.
		NERTS said that even after renovation of Yurembam substation, problem exists circuit-Breaker in Karong feeder at
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, ithas been observed that there is DGM(AM), NERTS stressed that EF relay at Lekhi for RHEP-Lekhi shouldbe made directional. EE, SLDC, Ar. Pradesh assured
Nagaland	Tripping of 132 kV Dimapur(PG)-Dimapur(NG) I&II on 11.01.16, 21.02.16.	

	Minutes of the 44th	PCC Meeting	_
	Multiple tripping of 132 kV	members expressed concern	
	Dimapur(PG)-Kohima(NG) on	over non- representation of	
	12.01.16, 22.01.16, 21.02.16	DoP, Nagaland to the sub-	
	& 31.03.16.	committee. The forum requested	
		NERPC to write a letter to Chief	
		Engineer, DoP, Nagaland for this	
	Tripping of 132 kV	issue.	
	Doyang(NEEPCO)-	Nagaland representative assured	
	Mokokchung(NG) on	that in future tripping details	
	08.02.16, 18.02.16, 21.02.16.	(including relay flag, DR, Event	
	At 1420 Hrs 09.01.16, 132		
	kV Aizwal - Kolasib (Aizwal		
		proper analysis can be done	
	Kolasib - No Tripping) line	1	
	and 132 kV Badarpur -	relay flags, DR etc.) are	
	<u> </u>		
	Kolasib (Badarpur (PG)- DP,		
	ZIII, R-E and Kolasib	However forum suggested that	
	Tripping of 132kV Aizawl-	vegetation clearance activities be	
	Zuangtui on 24.02.16,	taken up in earnest by DoP	
Mizoram	14.03.16,28.03.16.	Mizoram to reduce the number	
		of trippings. As no	
		representative from P&E Dept.,	
	At 1621 Hrs 31.03.16, 132		
		meeting, the trippings	
		pertaining to Mizoram system	
	Kumarghat- DP, ZII, Y-E),	could not be discussed in detail.	
	132 kV Aizwal - Kolasib	The members expressed concern	
	Aizwal (PG) - DP, ZI, B-E and		
	Kolasib - Not Furnished) and	P&E Dept., Mizoram to the sub-	
	132 kV Aizwal – Jiribam		
	(Aizwal (PG) - DP, ZII,	NERPC to write a letter to	
		Engineer in Chief, P & E Deptt.,	
		Mizoram for this issue. SE, DoP,	
		Mizoram assured that in future	
	B-E and Jiribam- Not		
	Furnished) line tripped.		
	II	1	

	Multiple tripping of 132 kV Khliehriat(PG)-Khliehriat(ME) I&II on 27.02.16,28.02.16, 10.02.16,29.02.16 At 1830 Hrs on 29.01.16, 132 kV Agia (AEGCL) - Medipathar (MePTCL) (Agia (AEGCL) - Not Furnished and Medipathar	Khliehriat: In the Sub- Group meeting preceding 43rd PCCM SE, MePTCL informed that earthing works have been completed except 18.07.2016. Regarding installation of line results obtained after installation of line LAs would be shared with the members.	
Meghalaya	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.		
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 required at BNC-HVDC S/Sn. And it is needed to expedite commissioning of 1 no. Bus Reactor at 400 kV Rangandi. The 43 rd PCC forum referred this matter to next SCM of NER.	

At 1834 Hrs 25.01.16, 132 kV Biswanath Charali Pavoi I (Biswanath Charali (PG) and Pavoi No Tripping (AEGCL) – Not Furnished) line, 132 kV Biswanath Charali -Pavoi II (Biswanath Charali (PG) - Over Current and Pavoi (AEGCL) line -Not furnished 220/132 kV, 50 MVA ICT-I Balipara (Overcurrent) 50 MVA ICT-II at and Balipara (Overcurrent) tripped.

Forum suggested that vegetation clearance activities be taken up in earnest by AEGCL & DoP Ar. Pradesh to reduce the number of trippings.

In 43rd PCCM, the trippings were re-analyzed by the subgroup, the root cause and remedial actions may be referred from A.19(B).

At 2030 Hrs 25.01.16, 132 kV Biswanath Charali-Pavoi I (Biswanath Chariali (PG) – No Tripping and Pavoi (AEGCL) – Earth Fault) line, 132 kV Biswanath Charali-Pavoi II (Biswanath

In 43rd PCCM, 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.

Deliberation in the meeting

The sub-committee regretted that none of the utilities had submitted progress of the vegetation clearances on monthly basis. Most of the faults are due lightning or vegetation. It is requested that all utilities must take vegetation clearance activity regularly.

The Sub-committee noted as above.

Action: All Utilities.

A.9 <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)
- i. 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 main cause of this disturbance 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 in spite of repeated requests. The forum requested NERPC to write a letter to CMD, TSECL for this issue.

During the 43rd PCCM, 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.

Deliberation of the Committee.

A.10 Completion of activities within specified time as per directives of CERC 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 at - Annexure II.

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

During the 43rd PCCM, the latest status was shared.

Deliberation in the meeting

It is decided that for completion of R&M works within the specified time as per directive of CERC regular monitoring of the progress of the work physically as well as financially is a necessity.

The Sub-committee noted as above.

Action: All Utilities.

A.11 <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.

During the 43rd PCCM, DGM(SO-II),NERLDC stated since no comments/observations were received from the constituents it may be assumed that the DR channels for line, transformer and reactor 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.

Deliberation in the meeting

AEGCL representative informed the forum that the work of DR standardization to be completed by 30th Nov'16.NTPC to submit the standardized DR channels for generator. *The Sub-committee noted as above.*

Action: AEGCL.NTPC.

A.12 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.

As per 43rd PCCM, please refer to discussion in Agenda Item No.A.9.

Deliberation in the meeting

The forum decided that protection auditing of Tripura system is to be carried out and the dates of Audit in Tripura is tentatively fixed from 7th to 10th November excluding travelling days.

The Sub-committee noted as above.

A.13 Maintenance Procedure adopted by utilities:

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.

As per discussions in 43rd PCCM, 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 finalized an assessment of testing equipment available with state utilities need to be made. Only after that a committee may be set up to streamline maintenance procedure.

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

Deliberation in the meeting

It is decided that the required Maintenance procedure to be prepared by subgroup and the Manual shall contain minimum procedures to be followed and detailed procedures to be followed.

The Sub-committee noted as above.

A.14 Review of Relay settings and Co-ordination:

Most of the Grid disturbances in NER Grid are occurring due to tripping of radial feeders, where the fault lies in downstream region. The faults are being cleared by Remote ends at EHV level instead of clearance at downstream distribution level.

Proper co-ordination of relay-settings amongst all voltage levels may reduce the number of Grid Disturbances in NER grid, and result in less Value of Lost Load.

It is requested that all utilities of NER may submit their relay settings (including Distribution side viz. 33 kV levels) for proper co-ordination with EHV side, to NERTS, NERPC and NERLDC. The relay settings, once approved by the PCC forum, should be adopted by all utilities, and any modification in relay settings should be done only after recommendation by PCC forum.

The major Grid Disturbance of Category-V in NER Grid on 16.04.16 occurred due to mal-operation of relays at 400 kV New-Siliguri end of 400 kV New-Siliguri – Bongaigaon Q/C lines, where the time setting on Zone-II was kept as 350 msec instead of around 600 msec as recommended by V.Ramakrishna Task Force report.

It is proposed that all substation wise List of long lines followed by Short lines be identified, and the relay settings modified accordingly as per recommendations of V.Ramakrishna Task Force.

Deliberation in the meeting

It is decided that subgroup will suggest revised relay settings as per guidelines of Ramakrishna task force report. Subgroup shall follow the model settings circulated by POWERGRID on implementation of guidelines of Ramakrishna task force. All utilities

shall implement 50 percent of the settings recommended by subgroup by 31st October 2016 and rest 50 percent by 30th November.

The Sub-committee noted as above.

Action: NERLDC, NERPC.

A.15 Review of Zone-II relay settings:

Several disturbances and major trippings in NER Grid are occurring on account of fault due to vegetation etc, resulting in high-resistive faults that fall outside the characteristic of Zone-II of Distance Protection. This results in delayed fault clearance by Earth fault relays, and the trippings are widespread.

In view of this it is proposed that the Resistive reach of Zone-II of Distance protection be reviewed by all utilities.

Deliberation in the meeting

After detailed deliberation it was decided that calculation of Zone-II relay settings will be done by 30th Sep'16 by subgroup and Implementation of 50 percent of the settings recommended by subgroup to be completed by 31st October 2016 and rest 50 percent by 30th November by all utilities..

The Sub-committee noted as above.

Action: NERLDC, NERPC.

A.16 Adoption of Numerical relays:

It has been observed that several lines in NER Grid are having Static/Electromechanical relays as Overcurrent/Earth-fault relays. The Numerical relays, wherever available, have inbuilt Overcurrent/Earth-fault feature. The time-synchronised Disturbance Recording facility is available only in Numerical relays, absence of which lead to inconclusive analysis of Grid events.

It is proposed to enable the inbuilt Overcurrent/Earth-fault feature of Numerical relays, wherever available, to enable receipt of Disturbance Recorder outputs corresponding to all events of NER Grid. The time-synchronised Disturbance Recording facility is available only in Numerical relays, absence of which lead to inconclusive analysis of Grid events. Upon enabling the inbuilt feature of Numerical relays, the existing static / electromechanical relays may but put out of service.

It has been observed that in systems of NEEPCO in particular in Central sector, Numerical relays are not available and Static/electromechanical relays are being used instead. Guidelines of CEA recommend replacement of static/electromechanical relays with Numerical relays which are time synchronised to the Grid.

It is proposed to upgrade all existing Electromechanical / Static relays of Central Sector elements with Numerical relays having Time-synchronised Disturbance Recording facility.

Deliberation in the meeting

After detailed deliberation it was decided that the upgradation of all existing Electromechanical/Static Relays of Central Sector elements with adoption of Numerical Relays will be done after the completion of R&M activities in case of State Substations/elements. NEEPCO representative had told the forum that installation of Numerical relays at AGTPP, Doyang and Ranganadi(only main-II) are still pending.

The Sub-committee noted as above.

Action: NEEPCO.

A.17 Manual for Protection Systems:

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

It is requested to all utilities of NER to develop their own protection manuals consistent with various regulations and orders / reports.

Deliberation in the meeting

SE(O), NERPC suggested that it may be decided in the sub group meeting. *The Sub-committee noted as above.*

Action: NERPC.

A.18 Fault / Lack of Synchronisation facility:

On 31st August 2016, there was a disturbance in Tripura system post tripping of 132 kV AGTPP – Kumarghat line while several tie-lines of Tripura system to rest of NER Grid was kept open.

At the time of synchronisation of the islanded Tripura system with rest of NER Grid, it was found that there exists no synchronisation facility within Tripura system. Further, while attempting to synchronise the island by charging of 132 kV P K Bari – Kumarghat line, the attempt failed due to faulty synchroscope at 132 kV Kumarghat (PG).

Also, at the time of synchronisation of islanded parts of NER Grid during GD-V in NER on 16.04.16, the restoration process got delayed due to faulty synchronisation facility at 132 kV Kumarghat (PG), 132 kV Badarpur (PG).

Availability of synchronisation facility is critical to restoration following Grid Events. It is requested that synchronisation facility be made available at all critical substations of NER Grid, and existing synchronisation facilities at substations be kept healthy at all times.

Deliberation in the meeting

DGM(AM), NERTS informed that the Kumarghat problem was with the wire for bus voltage. At Badarpur fault was due to CVT fuse failure and the problems are rectified. Forum suggested for periodic checking of synchronization facilities of critical stations and healthy status to be intimated to RLDC & RPC. The criticality of the situation was discussed in PCC and the constituents decided that PSDF funding is required. As such it is decided to be put up to NERPC forum.

The Sub-committee noted as above.

Any other item:

Date and Venue of next PCC

It is proposed to hold the 45th PCC meeting of NERPC on second week of November, 2016. The exact venue will be intimated in due course.

Annexure-I

List of Participants in the 44th PCC Meetings held on 20/09/2016

SN	Name & Designation	Organization	Contact No.
1.	Sh. Ashutosh Bhattacharya, DM(AEGCL)	Assam	09435332928
2.	Ms. Jharna Devi, AM	Assam	08822798944
3.	Sh. A. G. Thum, AEE, SLDC	Meghalaya	09774664034
4.	Sh. B. Nikhla, EE, SLDC	Meghalaya	09436314163
5.	Sh. Amaresh Mallick, DGM(SO-II)	NERLDC	09436302220
6.	Sh. Jerin Jacob, Engineer	NERLDC	09402120113
7.	Sh. Joypal Roy, Sr. Manager	NEEPCO	09435577726
8.	Sh. P. Kanungo, DGM- AM	PGCIL	09436302823
9.	Sh. Alokesh Hazarika, Sr. Executive	OTPC	07085060480
10.	Sh. P.K. Mishra, MS	NERPC	-
11.	Sh. L. B. Muanthang, SE	NERPC	09436731488
12.	Sh. B. Lyngkhoi, Director/S.E (O)	NERPC	09436163419
13.	Sh. P. N. Sarkar, EE	NERPC	09830027523
14.	Sh. Sadiq Imam, AD-I/AEE	NERPC	07004133772

			List of Gri	d Disturbanc	es in North	-Eastern Regi	onal Grid d	luring July	'16-August'	16			
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 श्रीतर 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 Silchar - Azara	NETC &	00/01/1900 13:07:37.596 09/07/2016 13:07:37.599	Silchar	DP, ZI, R-Y- E,165.3 Kms.	Not applicable	Yes	Yes			7/9/2016 13:59	SPS 3	
	400 KV Silena 112ma	AEGCL		Azara	DP, ZI, R-Y- E,98.7 Kms.	Not applicable	No	No			Wy/2010 13.37	operated	
	400 kV Silchar - Byrnihat	NETC &		Silchar	DP, ZI, Y-B- E,163.4 Kms.	Not applicable	Yes	Yes	Loss of Load:	l: GD-IV	7/9/2016 14:10	SPS 3	0.102
	100 KV Silena Byrinian	MePTCL		Byrnihat	DP, ZI, Y-B- E,64.07 Kms.	Not applicable	No	No	249			operated	0.102
	132 kV Dimapur - Imphal	POWERGRID	09/07/2016	Dimapur	No Tripping	Not applicable	No	No			7/9/2016 13:53	No SPS	
	132 KV Dimapur Impilar	TOWERGRID	13:19:00.000	Imphal	Power Swing	Not applicable	Yes	No			177/2010 13.33	110 51 5	
	132 kV Khliehriat (PG)-	POWERGRID	09/07/2016	Khliehriat(PG)	Power Swing	Not applicable	No	No			7/9/2016 13:55	No SPS	
	Badarpur	TOWERGRID	13:19:00.000	Badarpur	No Tripping	Not applicable	No	No			7772010 13.33	110 01 0	
	132 kV Palatana-Udaipur	TSECL	09/07/2016	Palatana	Under Frequency	Not applicable	No	No			7/9/2016 15:00	No SPS	
	22 a v 1 alatana Odalpai	ISECE	13:20:06.845	Udaipur	Not Furnished	Not applicable	No	No			7/9/2016 15:00	110 01 0	

			List of Gri	d Disturband	ces in North	-Eastern Regi	onal Grid d	luring July	'16-August'	16			
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 Surjamaninagar-	POWERGRID	09/07/2016	Surjamaninag ar	Not Furnished	Not applicable	No	No			7/9/2016 14:30	No SPS	
	Palatana I	TOWERGRID	13:20:06.848	Palatana	Under Frequency	Not applicable	No	No			117/2010 14.50	110 51 5	
	132 kV Silchar-P K Bari I	POWERGRID	09/07/2016	Silchar	Power Swing	Not applicable	No	No		7,	7/9/2016 14:16	No SPS	
			13:19:00.000	PK Bari	Not Furnished	Not applicable	No	No					
	132 kV Silchar-P K Bari	POWERGRID	09/07/2016	Silchar	Power Swing	Not applicable	No	No			7/9/2016 14:16	No SPS	
	II		13:19:00.000	PK Bari	Not Furnished	Not applicable	No	No					
	132 kV AGTPP -	POWERGRID	09/07/2016	AGTPP	Under Frequency	Not applicable	No	No			7/9/2016 13:59	No SPS	
	Kumarghat		13:19:00.000	Kumarghat	Power Swing	Not applicable	No	No					
	132 kV Silchar -	POWERGRID	09/07/2016	Silchar	Power Swing	Not applicable	No	No			7/9/2016 14:06	No SPS	
	Dullavcherra	& AEGCL	13:19:00.000	Dullavcherra	Not Furnished	Not applicable	No	No			7/9/2016 14:06		

	List of Grid Disturbances in North-Eastern Regional Grid during July'16-August'16															
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 Silchar -	POWERGRID		Silchar		Not applicable	No	No			7/9/2016 14:05	SPS 1				
	Panchgram	& AEGCL	& AEGCL	& AEGCL	& AEGCL		Panchgram		Not applicable	No	No			7,7,2010 1 1100	operated	
	132 kV Silchar - Srikona I POWERGR	Srikona I POWERGRID		Silchar		Not applicable	No	No			7/9/2016 14:03 SPS 1					
				09/07/2016	Srikona	Due to opeartion of	Not applicable	No	No				operated			
1	132 kV Silchar - Srikona	POWED GPID	POWERGRID	13:28:00.000	Silchar	SPS I	Not applicable	No	No			7/9/2016 14:03	SPS 1			
	II			Srikona		Not applicable	No	No				operated				
	132 kV Badarpur -			Badarpur		Not applicable	No	No			7/9/2016 13:34	SPS 1				
	Panchgram			Panchgram		Not applicable	No	No				operated				
	Palatana GTG I	OTPC	09/07/2016 13:15:59.745	Palatana	Over Frequency	Not applicable	Yes	No			7/11/2016 19:36	SPS 3 operated				
	Palatana GTG II	OTPC	09/07/2016 13:19:59.049	Palatana	Over Frequency	Not applicable	Yes	No		GD IV	7/9/2016 20:00	No SPS				

क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवरण / Name of tripping element/ Description	मालिक / Owner	List of Gri दिनांक और घटना के समय सीआर ऑपरेटर द्वारा प्रदान की / Date & Time of Event provided by CR operator	d Disturband नोड के नाम / Name of Node	सीआर सीआर ऑपरेटर द्वारा प्रदान की रिले संकेत / Relay indications provided by CR operator	Eastern Region 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
	Palatana STG I	OTPC	09/07/2016 13:16:09.276	Palatana	Due to Tripping of GTG-I	Not applicable	Yes	No		OD-IV	7/11/2016 23:10	SPS 3 operated	
	Palatana STG II	OTPC	09/07/2016 13:28:45.938	Palatana	Due to Tripping of GTG-II	Not applicable	Yes	No			7/9/2016 21:15	No SPS	
	AGTPP U 1	NEEPCO	09/07/2016 13:19:00.000	AGTPP	Under Voltage and Reverse	Not applicable	No	No	Loss of Generation: 684	GD-IV	7/9/2016 14:05	No SPS	2.429
	AGTPP U 2	NEEPCO	09/07/2016 13:19:00.000	AGTPP	Power Relay operated	Not applicable	No	No			7/9/2016 14:09	No SPS	
	AGTPP U 3	NEEPCO	09/07/2016 13:24:00.000	AGTPP	Reverse Power Relay operated	Not applicable	No	No			7/9/2016 14:15	No SPS	
	AGTPP U 4	NEEPCO	09/07/2016 13:24:00.000	AGTPP	Under Voltage and Reverse	Not applicable	No	No			7/9/2016 13:26	No SPS	
	AGTPP STG I	NEEPCO	09/07/2016 13:24:00.000	AGTPP	Due to Tripping of GTGs	Not applicable	No	No			7/9/2016 18:56	No SPS	
	AGTPP STG II	NEEPCO	09/07/2016 13:24:00.000	AGTPP	Due to Tripping of GTGs	Not applicable	No	No			7/10/2016 2:21	No SPS	
	FIR by the constituent	Yes (AGTPP,Tı	ripura,Palatana ar	nd POWERGRI	D)								

List of Grid Disturbances in North-Eastern Regional Grid during July'16-August'16													
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	NER Grid was in synchronism with NEWS Grid through 400kV Bongaigaon - New Siliguri II, III and IV lines & 220 kV Birpara - Salakati I & II and and asynchronously connected with NR Grid through +/- 800 kV Biswanath Charali-Agra pole I (400kV Bongaigaon - New Siliguri I kept open from 22:55 Hrs on 25.06.16 to contain over voltage). Southern part of NER Grid through +/- 800 kV Biswanath Charali-Agra pole I (400kV Bongaigaon - New Siliguri I kept open from 22:55 Hrs on 25.06.16 to contain over voltage). Southern part of NER Grid through 400 kV Silchar - Agrara line, 400 kV Silchar - Byrnithat line, 132 kV Imphal - Dimapur line and 132 kV Badarpur - Khliehriat line (132 kV Karong-Kohima line & 132 kV Khliehriat-Lumnsnong line kept open for system requirement and 132 kV Halflong - Jiribam line was under Emergency Shutdown from 11:00 Hrs on 09:07.16). At around 13:19:55.200 Hrs on 09:07.16, 400 kV Silchar - Azara (13:07:37.596 Hrs-DR timing) and 400 kV Silchar - Byrnihat (13:07:37.596 Hrs-DR timing) tripped. Due to delayed backing down of Palatana generation (as per design of SPS-III), 132 kV Badprur - Khliehriat line and 132 kV Imphal - Dimapur lines tripped on overloading / power swing protection. Due to tripping of these elements, Southern part of NER Grid consisting of South Assam, Manipur, and Mizoram and Tripura systems along with Palatana & AGTPP separated from rest of NER Grid. Tripura systems along with AGTPP & radial load of Bangladesh were connected to NER Grid through 132 kV V Bratana - Sunjamaninagar line, 132 kV Palatana - Udaipur and 132 kV Silchar - PK Bari I & II lines (132 kV P R Bari - Dharmanagar line kept open for system requirement). At 13:19 Hrs on 09:07.16, 132 kV AGTPP - Kumarghat tripped (AGTPP: UFR & 86A, 186A/B); Kumarghat : Power swing). At 13:20 Hrs on 09:07.16, 132 kV Palatana - Sunjamaninagar line, 132 kV Palatana - Udaipur and 132 kV Silchar - PK Bari I & II lines tripped. Due to tripping of these lines, Tripura systems along with AGTPP & radial load of Bangladesh were separated from r											
	Antecedent Conditions of NER Grid												
	Root Cause												
	Remedial Measures	is the norminal suggested remed	value). Earthing t dies, POWERGR	o be done by Po ID to install To	OWERGRID bower Lightning	y 1. Counterpoise	e earthing 2. d CM, forum sug	irect earthing ggested POW	of shield wire	to ground if r	ound to be 92 ohr becessary 3. If any ing prone areas an	difficulty in t	he already

			List of Gri	d Disturband	ces in North	-Eastern Regi	onal Grid d	luring July	'16-August'	16			
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
	400 kV Balipara - Bongaigaon I	POWERGRID	7/21/2016 10:16	Balipara	DP, Z V, R- E,Over Voltage	Not applicable	No	No			7/24/2016 19:56	No SPS	
	Donguiguon 1			Bongaigaon	DP, ZII, R- E,370.1 Kms.	Not applicable	Yes	Yes					
	400 kV Balipara - Bongaigaon II	POWERGRID	7/21/2016 10:16	Balipara	DP, Z V, R- E,Over Voltage	Not applicable	No	No			7/21/2016 10:42	No SPS	
	Doligaigaon n			Bongaigaon	DP, ZII, R- E,348.1 Kms.	Not applicable	Yes	Yes		GD-II			
	400 kV Balipara - Bongaigaon IV	POWERGRID	7/21/2016 10:16	Balipara	DP, ZIV, R- E,19.31 Kms.	Not applicable	No	No			7/21/2016 11:20	No SPS	
	Boligaigaon IV			Bongaigaon	DP, ZII, R- E,332 Kms.	Not applicable	Yes	Yes					
	400 kV Balipara-			Balipara	No tripping	Not applicable	No	No					
	Biswanath Charali I	POWERGRID	7/21/2016 10:16	Biswanath Charali	DP, ZII, R- E,60 Kms.	Not applicable	Yes	No			7/21/2016 11:32	No SPS	
	400 kV Balipara-	DOWED CD ID	7/21/2016 10:16	Balipara	No tripping	Not applicable	No	No			7/21/2016 11:24	N. CDC	
	Biswanath Charali II	POWERGRID	7/21/2016 10:16	Biswanath Charali	DP, ZII, R- E,60 Kms.	Not applicable	Yes	No			7/21/2016 11:24	No SPS	
	400 kV Balipara-	POWERGRID	7/21/2016 10:16	Balipara	No tripping	Not applicable	No	No			7/21/2016 11:10	No SPS	
	Biswanath Charali III			Biswanath Charali	DP, ZII, R- E,57 Kms.	Not applicable	Yes	No				2.2.22	

			List of Gri	d Disturban	ces in North	-Eastern Regi	onal Grid d	luring July	'16-August'	16			
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 श्रीतर 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 Balipara- Biswanath Charali 1V	POWERGRID	7/21/2016 10:16	Balipara		Not applicable	No	No			7/21/2016 11:34	No SPS	
	Diswanath Charan 1 v			Biswanath Charali	DP, ZII, R- E,57 Kms.	Not applicable	Yes	No	Loss of	GD-II			0.12
	400 kV Ranganadi-	POWERGRID	7/21/2016 10:16	Ranganadi	DP, ZII, R- E,220 Kms.	Not applicable	No	No	Load: 114		7/21/2016 11:19	No SPS	
2	Biswanath Charali 1	1 O W LIKOKID	7/21/2016 10:16	Biswanath Charali	No tripping	Not applicable	No	No			7/21/2010 11.1)	140 51 5	
	400 kV Ranganadi-			Ranganadi	DP, ZII, R- E,219 Kms.	Not applicable	No	No					
	Biswanath Charali 1I	POWERGRID	7/21/2016 10:16	Biswanath Charali	No tripping	Not applicable	No	No			7/21/2016 11:33	No SPS	
	400 kV Misa - Balipara I	DOWED CDID	7/01/001 < 10.1 <	Misa	DP, ZII, R- E,120 Kms.	Not applicable	Yes	No			7/21/2016 10:53	No SPS	
	400 k v Misa - Balipara i	POWERGRID	//21/2016 10:16	Balipara	DP, ZIV, R-E	Not applicable	No	No			7/21/2016 10:53	N0 SPS	
	400 kV Misa -Balipara II	DOWED CD ID	7/21/2016 10:16	Misa	DP, ZII, R- E,120.5 Kms.	Not applicable	Yes	No			7/21/2016 11:05	No SPS	
	400 KV Misa -Banpara ii	FOWERORID	7/21/2010 10:10	Balipara	DP, ZIV, R-E	Not applicable	No	No			7/21/2010 11:03	NO SES	
	Ranganadi U 1	NEEPCO		Ranganadi	Tripped due	Not applicable	No	No			7/21/2016 11:15	No SPS	
	Ranganadi U 2	NEEPCO	7/21/2016 10:16	Ranganadi	to loss of evacuation	Not applicable	No	No	Loss of Generation: 330		7/21/2016 12:19	No SPS	0.324
	Ranganadi U 3	NEEPCO		Ranganadi	path	Not applicable	No	No	230		7/21/2016 12:41	No SPS	

			List of Gri	d Disturban	ces in North	-Eastern Regi	onal Grid d	luring July	y'16-August'	16					
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	Yes(POWERGI	RID)												
	Brief Description of the Incident	Balipara - Bong 132 kV Rangia- on 21.07.16, 40 Biswanath Char	pi area, Ziro area, Lekhi area & Capital area of Arunachal Pradesh and Pavoi, Gohpur & Depota area of Assam were connected with rest of NER Grid through 400 kV para - Bongaigaon I,II & IV lines, 400 kV Balipara-Misa I & II and +/- 800 kV Biswanath Charali-Agra pole I (Bus Coupler CB of Gohpur, 132 kV Rangia-Sipajhar line & kV Rangia-Rowta line kept open for system requirement and 400 kV Balipara - Bongaigaon III kept open to contain over voltage since 05:55 Hrs on 21.07.16). At 10:16 Hrs (1.07.16, 400 kV Balipara - Bongaigaon I,II & IV lines, 400 kV Balipara-Biswanath Charali I,II,III&IV lines, 400 kV Balipara-Misa I&II lines and 400 kV Ranganadivanath Charali I&II lines tripped. Due to tripping of these elements, Khupi area, Ziro area, Lekhi area & Capital area of Arunachal Pradesh and Pavoi, Gohpur & Depota area assam were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch in this area.												
	Antecedent Conditions of NER Grid	(Antecedent Go	eneration : 2056	MW , Anteced	lent Load : 16	52 MW)									
		in CCTV footag	tecedent Generation: 2056 MW, Antecedent Load: 1652 MW) race of reason for Bus-fault found by inspection at Balipara by POWERGRID. Suspected reasons are due to short circuit caused by Monkey (found to be climbing in Gantry CTV footage), or due to the earth fault caused by construction work. But, fault in one bus should not have caused tripping of both buses. Problems rectified by PG in conation with CC, POWERGRID.												
		since Rangandi		ali length is mo	re than Biswan	ath Charali - Bali			•		be modified from was suggested in				

			List of Gri	d Disturban	ces in North	Eastern Regi	onal Grid d	luring July	'16-August'	16				
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	
	122 1 37 1 1 1 2 37 1 1	DoP AP &	7/28/2016	Lekhi	Earth Fault	Not applicable	No	No	Loss of Load:	CD I	7/20/2016 11 20	N. GDG	0.011	
	132 kV Lekhi - Nirjuli	POWERGRID	11:20	Nirjuli	No tripping	Not applicable	No	No	26	GD-I	7/28/2016 11:39	No SPS	0.011	
	FIR by the constituent	No	Nirjuli No tripping Not applicable No No											
3	Brief Description of the Incident	Gohpur kept ope	en for system req	uirement). At 1	1:20 Hrs on 28		anganadi-Lekl	hi line trippe	d. Due to trippi	ng of this ele	khi - Nirjuli line (ment, Nirjuli area ea.	-		
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2186	MW , Anteced	lent Load : 155	53 MW)								
	Root Cause				_	adi-Nirjuli line at oners need to be c	_	-		_	Some trees were al	so found to b	e burnt	
	Remedial Measures					er tripping of Rai GRID after seeing					total load are arou eria.	and 85 MW (3	35 MW-	

			List of Gri	d Disturban	ces in North	-Eastern Regi	onal Grid d	luring July	'16-August'	16			
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 श्रीतर 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	7/1/2016 12:24	Balipara	DP, ZI, Y-E, 49.19 KM	Not Furnished	No	No	Loss of Load:	GD-I	7/1/2016 12:46	No SPS	0.013
	132 KV Banpara - Knupi	NEELCO	7/1/2010 12:24	Khupi	No tripping	Not Furnished	No	No	14	GD-1	7/1/2010 12.40	NO 31 3	0.013
4	FIR by the constituent	No											
	Brief Description of the Incident		Arunachal Pradesh of this element, I			_					, 132 kV Balipar ea.	a- Khupi line	tripped.
	Antecedent Conditions of NER Grid	(Antecedent G	eneration: 1922	MW , Anteced	dent Load : 16	03 MW)							
	Root Cause	Due to vegetation	on problem										
	Remedial Measures	NEEPCO appli	ed for shutdown t	o clear vegetati	on problem.								
	132 kV Balipara - Khupi	NEEPCO	7/2/2016 21:41	Balipara	DP, ZI, Y-E, 63 KM	Not Furnished	No	No	Loss of Load:	GD-I	7/2/2016 22:02	No SPS	0.018
				Khupi	Not Furnished	Not Furnished	No	No	21				
5	FIR by the constituent	No											
	Brief Description of the Incident		Arunachal Pradesh of this element, I								, 132 kV Balipar ea.	a- Khupi line	tripped.
	Antecedent Conditions of NER Grid	(Antecedent G	eneration: 1883	MW , Anteced	lent Load : 20.	35 MW)					-		

			List of Gri	d Disturban	ces in North	-Eastern Regi	onal Grid d	luring July	'16-August'	16			
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 श्रीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के शीतर 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										
	Remedial Measures	NEEPCO applie	ed for shutdown t	o clear vegetati	on problem.								
6	132 kV Balipara - Khupi	NEEPCO	7/5/2016 22:04	Balipara	Not Furnished	Not Furnished	No	No	Loss of Load:	GD-I	7/5/2016 22:34	No SPS	0.016
				Khupi	Not Furnished	Not Furnished	No	No	21				
	FIR by the constituent	No											
	_	•				ER Grid through rest of NER Grid					i, 132 kV Balipara ea.	- Khupi line (ripped.
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2163	MW , Anteced	lent Load : 194	48 MW)							
	Root Cause	Due to vegetation	on problem										
	Remedial Measures	NEEPCO applie	ed for shutdown t	o clear vegetati	on problem.								
	132 kV Balipara - Khupi	NEEPCO	7/6/2016 10:30	Balipara	DP, ZII, B-E, 56.39 KM	Not Furnished	No	No	Loss of Load:	GD-I	7/6/2016 11:11	No SPS	0.02
				Khupi	No Indication	Not Furnished	No	No	21				
7	FIR by the constituent	No											

			List of Gri	d Disturban	ces in North	-Eastern Regi	onal Grid d	luring July	y'16-August'	16				
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 शीतर 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	
						ER Grid through rest of NER Grid					, 132 kV Balipara ea.	- Khupi line t	tripped.	
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2157	MW , Anteced	lent Load : 16	57 MW)								
	Root Cause	Due to vegetation	vegetation problem											
	Remedial Measures	NEEPCO applie	D applied for shutdown to clear vegetation problem.											
	132 kV Balipara - Khupi	NEEPCO	7/8/2016 9:24	Balipara	DP, ZI, R-Y- E,34.8 Kms.	Not Furnished	No	No	Loss of Load:	GD-I	7/8/2016 20:19	No SPS	0.262	
				Khupi	Not Furnished	Not Furnished	No	No	22					
8	FIR by the constituent	No												
						ER Grid through rest of NER Grid					, 132 kV Balipara ea.	- Khupi line t	tripped.	
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2041	MW , Anteced	lent Load: 17.	36 MW)								
	Root Cause	Due to vegetation	on problem											
	Remedial Measures	NEEPCO applie	ed for shutdown t	o clear vegetati	on problem.									

			List of Gri	d Disturban	ces in North	-Eastern Regi	onal Grid d	luring July	'16-August'	16						
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			
9	132 kV Balipara - Khupi	NEEPCO	7/18/2016 12:22	Balipara	DP, ZI, R-Y- E, 40 Kms.	Not Furnished	No	No	Loss of Load:	GD-I	7/18/2016 12:53	No SPS	0.048			
,	132 K V Bunpuru - Knupi	NEELCO	7/10/2010 12:22	Khupi	Not Furnished	Not Furnished	No	No	20	GD 1	7/10/2010 12.33	Nobib	0.040			
	FIR by the constituent	No														
	Brief Description of the Incident		a of Arunachal Pradesh was connected with rest of NER Grid through 132 kV Balipara- Khupi line. At 12:22 Hrs on 18.07.16, 132 kV Balipara- Khupi line tripped. oping 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 G	eneration : 2099	MW , Anteced	lent Load : 165	57 MW)										
	Root Cause	Due to vegetation	on problem													
	Remedial Measures	NEEPCO appli	ed for shutdown t	o clear vegetati	on problem.											
10	132 kV Balipara - Khupi	NEEPCO	7/22/2016 13:05	Balipara	DP, ZI, Y-E, 38.8 Kms.	Not Furnished	No	No	Loss of Load:	GD-I	7/23/2016 15:58	No SPS	0.454			
10	132 KV Banpara - Knupi	NELICO	7/22/2010 13.03	Khupi	Not Furnished	Not Furnished	No	No	21	GD-1	7/23/2010 13.30	140 51 5	0.434			
	FIR by the constituent	No														
	Brief Description of the Incident		Arunachal Pradesh of this element, I								, 132 kV Balipara ea.	a- Khupi line	tripped.			
	Antecedent Conditions of NER Grid	(Antecedent G	eneration : 1963	MW , Anteced	lent Load : 153	38 MW)										

			List of Gri	d Disturban	ces in North	-Eastern Regi	onal Grid d	luring July	'16-August'	16			
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
	Root Cause	Due to vegetation	on problem										
	Remedial Measures	NEEPCO applic	ed for shutdown t	o clear vegetati	on problem.								
11	132 kV Balipara - Khupi	NEEPCO	7/31/2016	Balipara	Back Up Earth Fault	Not applicable	No	No	Loss of Load:	GD-I	7/31/2016 13:26	No SPS	0.023
			12:59	Khupi	Not Furnished	Not applicable	No	No	20				
	FIR by the constituent	No											
						ER Grid through rest of NER Grid					i, 132 kV Balipara ea.	a- Khupi line	tripped.
	Antecedent Conditions of NER Grid	(Antecedent G	eneration : 2223	MW , Anteced	lent Load : 173	34 MW)							
	Root Cause	Due to vegetation	on problem										
	Remedial Measures	NEEPCO applic	ed for shutdown t	o clear vegetati	on problem.								
12	132 kV Balipara - Khupi	NEEPCO	8/12/2016 1:27	Balipara	DP, ZI, Y-B- E, 19.4 Kms.	Not Furnished	No	No	Loss of Load:	GD-I	8/12/2016 2:01	No SPS	0.017
	1			Khupi	Not Furnished	Not Furnished	No	No	20				
	FIR by the constituent	No											

			List of Gri	d Disturban	ces in North	-Eastern Regi	onal Grid d	luring July	'16-August'	16			
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 श्रीतर 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
			runachal Pradesh of this element, K			_					, 132 kV Balipar ea.	a- Khupi line	tripped.
	Antecedent Conditions of NER Grid	(Antecedent G	eneration: 1883	MW , Anteced	lent Load: 193	32 MW)							
	Root Cause	Due to vegetation	on problem										
	Remedial Measures	NEEPCO applie	ed for shutdown to	o clear vegetati	on problem.								
13	132 kV Balipara - Khupi	NEEPCO	8/21/2016 14:36	Balipara	Directional Over Current	Not applicable	No	No	Loss of Load:	GD-I	8/21/2016 15:48	No SPS	0.031
				Khupi	No tripping	Not applicable	No	No	21			- 1.0 2.0	
	FIR by the constituent	No											
	Brief Description of the Incident		runachal Pradesh of this element, K								, 132 kV Balipara ea.	a- Khupi line	tripped.
	Antecedent Conditions of NER Grid	(Antecedent G	eneration : 1940	MW , Anteced	lent Load : 169	92 MW)							
	Root Cause	Due to vegetation	on problem										
	Remedial Measures	NEEPCO applic	ed for shutdown to	o clear vegetati	on problem.								

			List of Gri	d Disturban	ces in North	-Eastern Regio	onal Grid d	luring July	'16-August'	16					
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		
14	132 kV Balipara - Khupi	NEEPCO	8/21/2016 20:56	Balipara	DP, ZI, Y-B- E, 53 Kms.	Not Furnished	No	No	Loss of Load:	GD-I	8/21/2016 21:06	No SPS	0.006		
	132 KV Banpara - Knupi	NEEL CO	0/21/2010 20.30	Khupi	No tripping	Not Furnished	No	No	16	GD-1	0/21/2010 21.00	110 51 5	0.000		
	FIR by the constituent	No	of Arunachal Pradesh was connected with rest of NER Grid through 132 kV Balipara- Khupi line. At 20:56 Hrs on 21.08.16, 132 kV Balipara- Khupi line tripped.												
	Brief Description of the Incident		Arunachal Pradesh was connected with rest of NER Grid through 132 kV Balipara- Khupi line. At 20:56 Hrs on 21.08.16, 132 kV Balipara- Khupi line tripped. 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 Go	eneration : 2269	MW , Anteced	lent Load : 202	28 MW)									
	Root Cause	Due to vegetation	on problem												
	Remedial Measures	NEEPCO applie	ed for shutdown t	o clear vegetati	on problem.										
15	132 kV Balipara - Khupi	NEEPCO	8/21/2016 16:12	Balipara	Directional Over Current	Not applicable	No	No	Loss of Load:	GD-I	8/21/2016 17:09	No SPS	0.011		
13	132 K v Banpara - Knupi	NEEL CO	0,21,2010 10.12	Khupi	No tripping	Not applicable	No	No	10	Ο <i>D</i> -1	0/21/2010 17.09	110 51 5	0.011		
	FIR by the constituent	No													
	Brief Description of the Incident	-	runachal Pradesh of this element, k			-	_	-			5 , 132 kV Balipara ea.	- Khupi line	tripped.		

			List of Gri	d Disturban	ces in North	-Eastern Regi	onal Grid d	luring July	'16-August'	16			
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	(Antecedent Go	eneration : 1943	MW , Anteced	lent Load: 17	15 MW)							
	Root Cause	Due to vegetation	on problem										
	Remedial Measures	NEEPCO applie	ed for shutdown t	o clear vegetati	on problem.								
16	132 kV Balipara - Khupi	NEEPCO	8/22/2016 1:23	Balipara	DP, ZI, R-Y- B, 31.56 Kms.	Not Furnished	No	No	Loss of Load:	GD-I	8/22/2016 1:35	No SPS	0.007
				Khupi	Not Furnished	Not Furnished	No	No	18				
	FIR by the constituent	No											
						ER Grid through rest of NER Grid					i, 132 kV Balipara ea.	- Khupi line t	ripped.
	Antecedent Conditions of NER Grid	(Antecedent G	eneration : 1778	MW , Anteced	lent Load : 172	24 MW)							
	Root Cause	Due to vegetation	on problem										
	Remedial Measures	NEEPCO applic	ed for shutdown t	o clear vegetati	on problem.								

			List of Gri	d Disturban	ces in North	Eastern Regi	onal Grid d	luring July	'16-August'	16			
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 Ranganadi - Lekhi	POWERGRID	8/4/2016 13:07	Ranganadi	Over current	Not applicable	No	No	Loss of Load:	GD-I	8/4/2016 13:34	No SPS	0.02
	102 K Y Rungunudi Zekin	& DoP AP	0/4/2010 13:07	Lekhi	No tripping	Not applicable	No	No	40	GD 1	0, 1, 2010 13.31	110 51 5	0.02
	FIR by the constituent	No											
17	Brief Description of the Incident	Gohpur kept ope	en for system req	uirement). At 1	3:07 Hrs on 04.		anganadi-Lekl	hi line trippe	d. Due to trippi		nganadi-Lekhi line ment, Lekhi area		
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1910	MW , Anteced	lent Load : 177	74 MW)							
	Root Cause	As informed by	POWERGRID, 1	relay flags are as	s follows: Lekh	i - Over current,F	anganadi - N	o tripping.					
	Remedial Measures		ekhi end to be su as Earth fault rela			conclude the root	cause. Lekhi d	& Ranganadi	over current set	tings to be re	eviewed.Direction	al feature of (Over

			List of Gr	rid Disturban	ces in North-	Eastern Regio	nal Grid du	ıring July'	16-August'1	6			
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
18	132 kV Silchar -	POWERGRID	8/4/2016 23:09	Silchar	DP, ZI, Y-E, 25.85 Kms.	Not Furnished	No	No	Loss of Load:	GD-I	8/4/2016 23:23	No SPS	0.009
10	Dullavcherra	& AEGCL	8/4/2010 23.09	Dullavcherra	No tripping	Not Furnished	No	No	34	GD-1	6/4/2010 23.23	NO SES	0.009
	FIR by the constituent	No											
	Brief Description of the Incident	requirement). A	area of Assam was connected with rest of NER Grid through 132 kV Silchar- Dullavcherra line (132 kV Dullavcherra-Dharmanagar line kept open for system At 23:09 Hrs on 04.08.16, 132 kV Silchar- Dullavcherra line tripped. Due to tripping of this element, Dullavcherra area was separated from rest of NER Grid and collapsed due to no source in this area.										
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1950	MW , Antecede	ent Load : 2157	MW)							
	Root Cause	Fault was beyon	d jurisdiction of	POWERGRID(F	POWERGRID po	ortion up to 17 Kr	ns).Root cause	e could not be	e concluded due	e to DR unav	ailability.		
	Remedial Measures	AEGCL to furni	sh patrolling repo	ort. POWERGR	ID to submit DR	output of Silchar	end.						
19	132 kV Silchar -	POWERGRID	8/31/2016 0:51	Silchar	DP, ZI, Y-E, 19.52 Kms.	Not Furnished	No	No	Loss of Load:	GD-I	8/31/2016 1:05	No SPS	0.009
-/	Dullavcherra	& AEGCL	2,01,2010 0.01	Dullavcherra	Not Furnished	Not Furnished	No	No	27		5,51,23101.05	1.0 51 5	0.007
	FIR by the constituent	No											
	Brief Description of the Incident	requirement). A		.08.16,132 kV S	Silchar- Dullavch	-					nanagar line kept o separated from res		

			List of G	rid Disturban	ces in North-	Eastern Regio	nal Grid du	ıring July'	16-August'1	6			-
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	(Antecedent Ge	eneration : MW	, Antecedent L	oad: MW)								
	Root Cause	Fault was beyon	vas beyond jurisdiction of POWERGRID (POWERGRID portion up to 17 Kms). Root cause could not be concluded due to DR unavailability.										
	Remedial Measures	AEGCL to furni	sh patrolling rep	ort. POWERGR	ID to submit DR	output of Silchar	end.						

			List of Gr	id Disturbar	nces in North-F	Eastern Region	nal Grid du	ring July'1	l6-August'16	5				
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	
20	132 kV Haflong(PG) -	AEGCL	8/24/2016 5:15	Haflong(PG)	Earth Fault	Not applicable	No	No	Loss of Load:	GD-I	8/24/2016 6:14	No SPS	0.001	
20	Haflong	TEGEL	0/24/2010 3:13	Haflong	Over current	Not applicable	No	No	1	GD 1	0,2 1,2010 0.11	110 51 5	0.001	
	FIR by the constituent	No	ng area of Assem was connected with root of NED Grid through 122kV Haflang (AS) Haflang(DG) line. At 05:15Hr on 24.08 16.122kV Haflang (AS) Haflang(DG) line.											
	Brief Description of the Incident		rea of Assam was connected with rest of NER Grid through 132kV Haflong (AS)-Haflong(PG) line. At 05:15Hr on 24.08.16,132kV Haflong (AS)-Haflong(PG) line but to tripping of this element, Haflong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.											
	Antecedent Conditions of NER Grid	(Antecedent Ge	d. Due to tripping of this element, Haflong area was separated from rest of NER Grid and subsequently collapsed due to no source in this area. cedent Generation: 1805 MW, Antecedent Load: 1958 MW)											
	Root Cause	Downstream fau	ılt											
	Remedial Measures	To be discussed	in PCCM											
	132 kV Khandong -	POWERGRID		Khandong	Earth Fault	Not applicable	No	No			8/28/2016 12:57	No SPS		
21	Umrangso	& AEGCL	8/28/2016 12:06	Umrangso	Loss of Voltage	Not applicable	No	No	Loss of Load:	GD-I			0.003	
41		POWERGRID	0/20/2010 12:00	Haflong	Loss of Voltage	Not applicable	No	No	5	Ο <i>D</i> -1	8/28/2016 12:45	No SPS	0.003	
	Umrangso	& AEGCL		Umrangso	Loss of Voltage	Not applicable	No	No						
	FIR by the constituent	No												

			List of Gr	id Disturba	nces in North-I	Eastern Region	nal Grid du	ring July'	16-August'10	5			
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	Khandong-Umr	ngso area of Assam was connected with rest of NER Grid through 132 kV Khandong-Umrangsho line & 132 kV Haflong-Umrangsho line .At 12:06 Hrs on 28.08.16, 132 kV dong-Umrangsho line & 132 kV Haflong-Umrangsho line tripped. Due to tripping of these elements, Umrangsho area was separated from rest of NER Grid and subsequently sed due to no source in this area.										
	Antecedent Conditions of NER Grid	(Antecedent Go	eneration: 1889	MW , Anteced	lent Load : 1819	MW)							
	Root Cause	Fault due to veg	etation problem.										
	Remedial Measures	Vegetation clean	rance to be done	by POWERGR	ID & AEGCL.Pati	rolling report to b	e submitted ar	nd Status of v	regetation clear	ance to be rep	orted by POWER	GRID & AEG	GCL.

			List of Gr	id Disturbar	ices in North-E	Eastern Region	nal Grid du	ring July'	l6-August'16	í			
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			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	लाड आर उत्पादन की हानि) / Effect (Loss of Load &	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

			List of Gri	d Disturban	ces in North-H	Eastern Region	nal Grid du	ring July'	l6-August'16	ó			
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 Imphal (PG) - Imphal (MA) I	POWERGRID	7/30/2016	Imphal (PG)	No tripping Earth Fault	Not applicable Not applicable	No No	No No	Loss of Load:		7/30/2016 12:59	No SPS	
	132 kV Imphal (PG) -	POWERGRID	12:39	Imphal (PG)	No tripping	Not applicable	No	No	26	GD-I	7/30/2016 12:59	No SPS	0.013
22	Imphal (MA) II			Imphal	Earth Fault	Not applicable	No	No					
	FIR by the constituent	No											
	Incident	Kohima line kep	ot open for syster	n requirement).	At 12:39 Hrs on		Imphal-Imph	nal I & II line:			ing-Kongba line & these elements, Ca		
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2190	MW , Anteced	lent Load : 1804	MW)							
	Root Cause	There was no tri	pping of 132 kV	Imphal (PG) - l	Imphal (MA) I&I	I lines as informe	d by PG.						
	Remedial Measures	Karong CB has with POWERG		PG.Reason for	tripping of Trans	sformer at Imphal	(MA) to be fu	rnished by M	IePTCL.Relay o	coordination l	has to be done by	MSPCL in co	onsultation

	T		List of Gri	d Disturban	ces in North-E	astern Region	al Grid du	ring July'1	6-August'16	í	I	1	
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		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

			List of G	rid Disturban	ces 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 (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
23	132 kV Loktak -	MSPCL	8/9/2016 6:12	Loktak	DP, ZIII, R-E, 38.28 Kms.	Not applicable	Yes	No	Loss of Load:	GD-I	8/9/2016 7:32	No SPS	0.044
	Ningthoukhong			Ningthoukhong	No Indication	Not applicable	No	No	30				
	FIR by the constituent	No											
	Brief Description of the Incident	Ningthoukhong	thong area of Manipur was connected with rest of NER Grid through 132 kV Loktak-Ningthoukhong line (132 kV kakching-Kongba line & 132 kV Imphal(PG)-thong line kept open for system constraint). At 06:12 Hrs on 09.08.16, 132 kV Loktak-Ningthoukhong line tripped. Due to tripping of this element, Ningthoukhong area ated from rest of NER Grid and subsequently collapsed due to no source in this area.										
	Antecedent Conditions of NER Grid	(Antecedent Ge											
	Root Cause	Likely due to do	wnstream fault ii	n Manipur system									
	Remedial Measures	To be discussed	in PCCM										
24	132 kV Loktak -	MSPCL	8/12/2016 9:35	Loktak	DP, ZII, B-E, 23.96 Kms.	Not applicable	Yes	No	Loss of Load:	GD-I	8/12/2016 11:24	No SPS	0.04
	Ningthoukhong	11101 CE	0,12,2010 7100	Ningthoukhong	No tripping	Not applicable	NA	NA	22	GD 1	O, 12, 2010 11.27	110 51 5	0.01
	FIR by the constituent	No											
	Brief Description of the Incident	Ningthoukhong	line kept open fo		nt). At 09:35 Hrs	on 12.08.16, 132	kV Loktak-N				ngba line & 132 kg ng of this element,		

			List of G	Frid Disturban	ces 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 (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	(Antecedent Ge	eneration : 1751	MW , Anteceder	nt Load : 1688 N	Л W)							
	Root Cause	Likely due to do	ownstream fault ii	n Manipur system									
	Remedial Measures	To be discussed	in PCCM										
25	132 kV Loktak - Ningthoukhong	MSPCL	8/21/2016 0:28	Loktak	Over current,R-Y-B phase	Not applicable	No	No	Loss of Load: 8	GD-I	8/21/2016 7:10	No SPS	0.057
				Ningthoukhong	Not Furnished	Not applicable	No	No					
	FIR by the constituent	No					<u> </u>						
	Brief Description of the Incident	Ningthoukhong	line kept open fo	was connected wi or system requirem Grid and subsequ	nent). At 00:28 H	rs on 21.08.16, 1	32 kV Loktak			_	•		
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1768	MW , Anteceder	nt Load : 1777 N	ЛW)							
	Root Cause	Likely due to Ph	nase to Phase faul	It in the the line or	downstream of	Ningthoukhong.							
	Remedial Measures	To be discussed	in PCCM										

			List of G	Frid Disturban	ces in North-	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	Name of Node	की रिले संकेत	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	डा.आर. परा किया (हां / नहीं) / DR	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

			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 (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 Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	DP, ZI, R-Y-B, 79.2 km	Not Furnished	No	No			7/5/2016 13:47	No SPS	
	Khliehriat (ME) I	10 WERGREE		Khliehriat(ME)	No tripping	Not Furnished	No	No			77572010 13.17	110 51 5	
	132 kV Khliehriat (PG) -	MePTCL		Khliehriat (PG)	DP, ZI, R-Y-B, 68 km	Not Furnished	No	No			7/5/2016 13:49	No SPS	
	Khliehriat (ME) II	WICH TCL		Khliehriat(ME)	No tripping	Not Furnished	No	No					
	132 kV NEIGRIHMS -	MePTCI		NEIGRIHMS	No tripping	Not Furnished	No	No	Loss of Load:		7/5/2016 13:25	No SPS	0.006
	Khliehriat (ME)	WICH TCL		Khliehriat	Earth Fault	Not Furnished	No	No	88		7/3/2010 13.23	100 51 5	0.000
	122 I V M	MePICL		Mustem	No tripping	Not Furnished	No	No			7/5/2016 12 21	N. CDC	
	132 kV Mustem-Khliehriat	MePTCL	7/5/2016 13:21	Khliehriat	DP, ZII, R-Y-B, 16.53 Kms	Not Furnished	No	No		GD-I	7/5/2016 13:31	No SPS	
	132 kV NEHU -	MaDTCI		NEHU	Earth Fault	Not Furnished	No	No			7/5/2016 12:29	No CDC	
	NEIGRIHMS	MePTCL		NEIGRIHMS	No tripping	Not Furnished	No	No			7/5/2016 13:38	No SPS	
	Umiam Stg I U 2	MePGCL	\dashv \vdash	Umiam Stg I	Generator O/C, under Volatge 86C.	Not applicable	No	No			7/5/2016 13:30	No SPS	
	Umiam Stg I U 3		Umiam Stg I	Generator O/C, 86C.	Not applicable	No	No			7/5/2016 13:35	No SPS		
	Umiam Stg I U 4	MePGCL		Umiam Stg I	Generator O/C, 86C.	Not applicable	No	No			7/5/2016 13:40	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 (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
26	Umiam Stg II U 1	MePGCL		Umiam Stg II	Generator under voltage.	Not applicable	No	No			7/5/2016 13:32	No SPS	
	Umiam Stg II U 2	MePGCL		Umiam Stg II	Generator under voltage.	Not applicable	No	No			7/5/2016 13:40	No SPS	
	Leshka U 1	MePGCL	7/5/2016 13:21	Leshka	86A, 86B, 86FT.	Not applicable	No	No	Loss of Generation: 145	GD-I	7/5/2016 15:25	No SPS	0.027
	Leshka U 2	MePGCL		Leshka	86A, 86B, 86FT.	Not applicable	No	No			7/5/2016 14:32	No SPS	
	Leshka U 3	MePGCL		Leshka	86A, 86B, 86FT.	Not applicable	No	No			7/5/2016 14:34	No SPS	
	FIR by the constituent	Yes (Meghalaya)					•	•			•	
	Brief Description of the Incident	132 kV Khliehr kept open for sy	at (PG)-Khliehri stem requirement nd 132 kV NEHU	at (MePTCL) I & t). At 13:21 Hrs or	GRIHMS, NEHU, II lines (132 kV K n 05.07.16 ,132 kV line tripped. Due t	hliehriat-Lumnsn Khliehriat (PG)	ong line, Non Khliehriat (M	gstoin - Nan IePTCL) I &	galbibra line an II lines,132 kV	d 132 kV Un NEIGRIHM	nium Stg I - Umit S - Khliehriat (MI	um Stg III I& E) line,132 kV	cII lines V Mustem-
	Antecedent Conditions of NER Grid	(Antecedent Go	eneration : 2131	MW , Anteceden	t Load : 1554 MV	W)							
	Root Cause	Fault likely due	to bampoo touch	ing in 132 kV NE	HU - NEIGRIHM	S line as informed	d by MePTCL						

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janı	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 (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			ghalaya has install ompleted due to n									Leshka
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	DP, ZI, B-E, 16.58 Kms.	Not Furnished	No	No			7/30/2016 14:17	No SPS	
	Khliehriat (ME) I		7/30/2016	Khliehriat(ME)	No tripping	Not Furnished	No	No	Loss of Load:	GD-I			0.004
	132 kV Khliehriat (PG) -	MePTCL	13:42	Khliehriat (PG)	DP, ZI, B-E, 10.76 Kms.	Not Furnished	No	No	24	GD-1	7/30/2016 14:18	No SPS	0.004
	Khliehriat (MePTCL) II			Khliehriat(ME)	No tripping	Not Furnished	No	No					
	132 kV Mustem-NEHU	MePTCL MePTCL		Mustem	Back Up Over Current	Not applicable	No	No			7/30/2016 14:05	No SPS	
				NEHU	No tripping	Not applicable	No	No	Loss of Load:				
	132 kV NEHU -	MePTCI		NEHU	Over current	Not applicable	No	No	24		7/30/2016 13:52	No SPS	0.004
	NEIGRIHMS	MS MePTCL 7/30 1 1 MePGCL 2 MePGCL	7/30/2016 13:42	NEIGRIHMS	No tripping	Not applicable	No	No		GD-I	7/30/2010 13.32	NOSIS	
25	Leshka U 1			Leshka	Over Frequency	Not applicable	No	No	T C		7/30/2016 15:29	No SPS	
27	Leshka U 2			Leshka	Over Frequency	Not applicable	No	No	Loss of Generation: 126		7/30/2016 15:09	No SPS	0.181
	Leshka U 3	MePGCL		Leshka	Over Frequency	Not applicable	No	No	-		7/30/2016 15:15	No SPS	
	FIR by the constituent	Yes(Meghalaya))										

			List of	Grid Disturba	ances in North-	Eastern Regio	onal Grid d	uring Janı	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 (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	NEIGRIHMS - I lines, 132 kV M	NEHU line (132 ustem-NEHU lin	s connected with r kV Khliehriat-Lun ne & 132 kV NEIO ad generation misr	nnsnong line kept GRIHMS - NEHU	open for system i	requirement).	At 13:42 Hrs	on 30.07.16 ,1	32 kV Khlieł	riat (PG)-Khliehr	iat (MePTCL	I & I
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2182	MW , Anteceden	it Load : 1797 MV	W)							
	Root Cause	Fault likely on a	ccount of lightni	ng.									
	Remedial Measures	MePTCL to info times due to ligh		substation earthing	g.After completing	S/S earthing,tow	er footing res	istance to be	measured.MeP	ΓCL to instal	l Tower LA as the	ese lines tripp	ed many
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	DP, ZI, R-Y-B- E, 46.2 Kms.	Not Furnished	No	No			7/31/2016 12:23	No SPS	
	Kimemiat (ME) i			Khliehriat(ME)	No tripping	Not Furnished	No	No					
	Khliehriat (ME) I 132 kV Khliehriat (PG) -	MePTCL		Khliehriat (PG)	DP, ZI, R-Y-B- E, 26.4 Kms.	Not Furnished	No	No			7/31/2016 12:24	No SPS	
	Khliehriat (MePTCL) II			Khliehriat(ME)	No tripping	Not Furnished	No	No					
	132 kV Leshka - Khleihriat (ME) I	MePTCL		Leshka	DP, ZI, R-E	Not Furnished	No	No			7/31/2016 12:20	No SPS	
			7/31/2016	Khliehriat (ME)	No tripping	Not Furnished	No	No	Loss of Load:	GD-I			0.001
	132 kV Leshka -	MePTCL	12:00	Leshka	DP, ZI, R-E	Not Furnished	No	No	22	<i>GD</i> -1	7/31/2016 12:13	No SPS	0.001
	Khleihriat (ME) II			Khliehriat (ME)	Over current	Not Furnished	No	No					

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janı	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 (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 NEIGRIHMS - Khliehriat (ME)	MePTCL		NEIGRIHMS	Earth Fault	Not Furnished	No	No			7/31/2016 12:12	No SPS	
	Killielillat (ME)			Khliehriat (ME)	No tripping	Not Furnished	No	No					
28	132 kV Mustem-NEHU	MePTCL		Mustem	Earth Fault	Not Furnished	No	No			7/31/2016 12:05	No SPS	
20				NEHU	No tripping	Not Furnished	No	No					
	Leshka U 1	MePGCL		Leshka	Over Frequency	Not applicable	No	No	T C		7/31/2016 13:33	No SPS	
	Leshka U 2	MePGCL	7/31/2016 12:00	Leshka	Over Frequency	Not applicable	No	No	Loss of Generation: 126	GD-I	7/31/2016 12:52	No SPS	0.092
	Leshka U 3	MePGCL		Leshka	Over Frequency	Not applicable	No	No	-		7/31/2016 13:09	No SPS	
	FIR by the constituent	Yes(Meghalaya))										
	Brief Description of the Incident	NEIGRIHMS - I & II lines ,132	Khliehriat (ME) kV Mustem-NE	s connected with r line (132 kV Khlie HU line & 132 kV due to load genera	ehriat-Lumnsnong 7 NEIGRIHMS - I	line kept open fo	r system requi	irement). At	2:08 Hrs on 31	.07.16 ,132 k	V Khliehriat (PG)-Khliehriat (MePTCL)
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2226	MW , Anteceden	t Load : 1750 MV	W)							
	Root Cause	Fault likely on a	ccount of lightni	ng. Fault was in 13	32 kV Leshka - Kl	nleihriat (ME) D	C lines. This	fault picked u	up by Khllt (PG	e) end.			
	Remedial Measures	MePTCL to info		substation earthing	g.After completing	g S/S earthing,tow	ver footing res	istance to be	measured.MeP	TCL to instal	l Tower LA as the	ese lines tripp	ed many

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janı	ıary 2016				
क्रम सं ख्या/ Sl. No.	बिजली व्यवस्था तत्व / विवर्ण / 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 Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG)	DP, ZI, R-Y-B- E, 20 Kms.	Not Furnished	No	No			8/5/2016 21:33	No SPS	
	Killieliliat (ME) i			Khliehriat(ME)	No tripping	Not Furnished	No	No					
	132 kV Khliehriat (PG) -	MePTCL		Khliehriat (PG)	DP, ZI, R-Y-B- E, 15.64 Kms.	Not Furnished	No	No			8/5/2016 21:37	No SPS	
	Khliehriat (ME) II	WICH TEL		Khliehriat(ME)	No tripping	Not Furnished	No	No			0/3/2010 21.37	110 51 5	
	132 kV Leshka -	MePTCL		Leshka	DP, ZI, R-Y-B-E	Not Furnished	No	No			8/5/2016 21:18	No SPS	
	Khleihriat (ME) I			Khliehriat (ME)	No tripping	Not Furnished	No	No					
	132 kV Leshka -		8/5/2016 21:06	Leshka	DP, ZI, R-Y-B-E	Not Furnished	No	No	Loss of Load: 43	GD-I			0.003
	Khleihriat (ME) II	MePTCL		Khliehriat (ME)	Tripped,Indicati ons not available	Not Furnished	No	No			8/5/2016 21:38	No SPS	
	132 kV NEHU -			NEHU	No tripping	Not Furnished	No	No					
	NEIGRIHMS	MePTCL		NEIGRIHMS	Tripped,Indicati ons not available	Not Furnished	No	No			8/5/2016 21:11	No SPS	
29	120 LV Mandana NICHU			Mustem	DP, ZI, R-Y-B- E, 42.8 Kms.	Not Furnished	No	No			8/5/2016 21:10	N- CDC	
	132 kV Mustem-NEHU	MEPICL		NEHU	No tripping	Not Furnished	No	No			6/3/2010 21:10	No SPS	

			List of	Grid Disturba	nces in North	Eastern Regio	onal Grid d	uring Janı	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 (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
	Leshka U 2	MePGCL	9/5/2017 21:07	Leshka	Over frequency	Not applicable	No	No	Loss of	CDI	8/5/2016 22:34	No SPS	0.067
	Leshka U 3	MePGCL	8/5/2016 21:06	Leshka	Over frequency	Not applicable	No	No	Generation: 84	GD-I	8/5/2016 21:50	No SPS	0.067
	FIR by the constituent	Yes(Meghalaya))										
	Brief Description of the Incident	Mustem-NEHU kV NEHU - NE	at area of Meghalaya was connected with rest of NER Grid through 132 kV Khliehriat (PG)-Khliehriat (MePTCL) I & II lines, 132 kV NEHU - NEIGRIHMS line and 132 kV - NEHU line (132 kV Khliehriat-Lumnsnong line kept open for system requirement). At 21:06 Hrs on 05.08.16, 132 kV Khliehriat (PG)-Khliehriat (MePTCL) I & II lines, 132 IU - NEIGRIHMS line and 132 kV Mustem-NEHU line tripped. Due to tripping of these elements, Khleihriat area was separated from rest of NER Grid and subsequently d due to load generation mismatch.										
		(Antecedent Ge	eneration : 1943	MW , Anteceden	t Load : 2454 M	W)							
	Root Cause	Most of the tripp	oing are due to lig	ghtning as informe	ed by MePTCL bu	t could not be cor	afirmed due to	DR unavalal	bility.				
	Remedial Measures				ed by MePTCL.Spoting resistance to								6 as
	132 kV Khliehriat (PG) - Khliehriat (ME) I PC	POWERGRID		Khliehriat (PG)	DP, ZI, R-Y-E, 8.524 Kms.	Not Furnished	No	No			8/8/2016 10:02	No SPS	
		POWERGRID		Khliehriat(ME)	No tripping	Not Furnished	NA	NA			0/0/2010 10:02	N0 5P5	
		MePTCL		Khliehriat (PG)	DP, ZI, R-Y-E, 5.485 Kms.	Not Furnished	No	No			8/8/2016 10:03	No SPS	
	Khliehriat (ME) II			Khliehriat(ME)	No tripping	Not Furnished	NA	NA			2010 10:00	1.0 21 3	

			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 (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 Mustem-NEHU	MePTCL	8/8/2016 9:25	Mustem	DP, ZI, R-Y-B- E, 20.79 Kms.	Not Furnished	No	No	Loss of Load:	GD-I	8/8/2016 9:28	No SPS	0.001
	132 KV Widstelli WEITO	WICH TEL		NEHU	No tripping	Not applicable	NA	NA	16		0/0/2010 7.20	110 51 5	
	132 kV NEHU -	MePTCL		NEHU	Trip Relay Operated	Lockout	No	No			8/8/2016 9:38	No SPS	
	NEIGRIHMS			NEIGRIHMS	No tripping	Not applicable	NA	NA					
30	132 kV Khandong -	POWERGRID		Khandong	No tripping	Not Furnished	No	No			8/8/2016 9:43	No SPS	
	Khliehriat(PG) I			Khliehriat(PG)	Earth Fault	Not Furnished	NA	NA					
	Leshka U 1	MePGCL	8/8/2016 9:25	Leshka	Over Frequency	Not applicable	No	No	Loss of Generation: 42		8/8/2016 10:01	No SPS	0.025
	FIR by the constituent	Yes(Meghalaya))										
	Brief Description of the Incident	Mustem-NEHU kV NEHU - NE	line (132 kV Kh	liehriat-Lumnsnor nd 132 kV Musten	est of NER Grid th ng line kept open f n-NEHU line tripp	or system require	ment). At 09:2	25 Hrs on 08.	08.16, 132 kV	Khliehriat (P	G)-Khliehriat (Me	PTCL) I & I	I lines, 132
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1850	MW , Anteceden	it Load : 1627 MV	W)							
	Root Cause	Most of the tripp	ping are due to lig	ghtning as informe	ed by MePTCL but	t could not be cor	firmed due to	DR unavalal	bility.				

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janu	ıary 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
	Remedial Measures			mpleted as inform nformed, Tower fo									6 as
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	DP, ZII, R-Y-B- E, 45.3 Kms.	Not applicable	No	No			8/15/2016 2:39	No SPS	
	Khliehriat (ME) I	TOWERGRID		Khliehriat(ME)	No tripping	Not applicable	No	No			8/13/2010 2:39	No SPS	
	132 kV Khliehriat (PG) -	MePTCL	8/15/2016 1:26	Khliehriat (PG)	DP, ZII, R-Y-B- E, 38.79 Kms.	Not applicable	No	No	Loss of Load: 15	GD-I	8/15/2016 2:35	No SPS	0.004
	132 kV Khliehriat (PG) - Khliehriat (ME) II			Khliehriat(ME)	No tripping	Not applicable	No	No					
	132 kV Leshka -	M-DTCI		Leshka	Earth fault	Not applicable	No	No			8/15/2016 1:50	No SPS	
	Khleihriat (ME) I	MePTCL		Khliehriat (ME)	No tripping	Not applicable	No	No			8/13/2010 1:30	N0 SPS	
	132 kV Leshka -	MePTCL		Leshka	Earth fault	Not applicable	No	No			8/15/2016 1:50	No SPS	
	Khleihriat (ME) II			Khliehriat (ME)	Earth fault	Not applicable	No	No					
	132 kV Mustem-NEHU	MePTCL	8/15/2016 1:26	Mustem	DP, 36 Kms.,Other inf. Not furnished	Not applicable	No	No		GD-I	8/15/2016 1:45	No SPS	0.004
				NEHU	No tripping	Not applicable	No	No					

			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 (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
31	132 kV NEIGRIHMS -	MePTCL		NEIGRIHMS	Earth fault	Not applicable	No	No			8/15/2016 1:42	No SPS	
	Khliehriat (ME)			Khliehriat	No tripping	Not applicable	No	No			6, 10, 2010 1112	1,0 515	
	Leshka U 1	MePGCL		Leshka		Not applicable	No	No			8/15/2016 2:43	No SPS	
	Leshka U 2	MePGCL	8/15/2016 1:26	Leshka	86A, 86B, 86FT	Not applicable	No	No	Loss of Generation: 126	GD-I	8/15/2016 2:44	No SPS	0.162
	Leshka U 3	MePGCL		Leshka		Not applicable	No	No			8/15/2016 2:52	No SPS	
	FIR by the constituent	Yes(Meghalaya))										
	Brief Description of the Incident	and 132 kV Mus II lines, 132 kV	stem-NEHU line NEIGRIHMS - K	(132 kV Khliehria	est of NER Grid that-Lumnsnong line are and 132 kV Musmismatch.	kept open for sy	stem requirem	ent). At 01:2	6 Hrs on 15.08	.16, 132 kV I	Khliehriat (PG)-Kl	hliehriat (Mel	PTCL) I &
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1820	MW , Anteceden	t Load : 1829 MV	W)							
	Root Cause				ed by MePTCL but				•				
	Remedial Measures				ed by MePTCL.Spoting resistance to								6 as

			List of	Grid Disturba	nces in North	Eastern Regio	onal Grid d	uring Janı	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 (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 Khliehriat (PG) - Khliehriat (ME) I	POWERGRID		Khliehriat (PG)	DP, ZI, R-Y-B- E, 1.9 Kms.	Not Furnished	No	No			8/15/2016 4:29	No SPS	
	Killieliliat (ME) I			Khliehriat(ME)	No tripping	Not Furnished	No	No					
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	8/15/2016 3:19	Khliehriat (PG)	DP, ZI, R-Y-B- E, 16.85 Kms.	Not Furnished	No	No	Loss of Load:	GD-I	8/15/2016 11:13	No SPS	0.003
	1111101111111 (1122) 12			Khliehriat(ME)	No tripping	Not Furnished	No	No					
	132 kV Khandong -	POWERGRID		Khandong	DP, ZI, R-Y-B- E, 3.22 Kms.	Not Furnished	No	No			8/15/2016 4:20	No SPS	
	Khliehriat(PG) I			Khliehriat(PG)	DP, ZI, R-Y-B	Not Furnished	No	No					
	132 kV Leshka -			Leshka	DP, ZI, R-Y-B	Not applicable	No	No					
	Khleihriat (ME) I	MePTCL		Khliehriat (ME)	No tripping	Not applicable	No	No			8/15/2016 4:10	No SPS	
	132 kV Leshka -	MePTCL		Leshka	DP, ZI, R-Y-B	Not applicable	No	No			8/15/2016 4:10	No SPS	
	Khleihriat (ME) II	1,101 102		Khliehriat (ME)	No tripping	Not applicable	No	No			5,15,2010 P.10	710 01 0	
	132 kV Mustem-NEHU	MePTCL		Mustem	DP, 32 Kms.,Other Inf. Not furnished	Not applicable	No	No			8/15/2016 3:29	No SPS	0.003

			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 (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
			8/15/2016 3:19	NEHU	No tripping	Not applicable	No	No		GD-I			
	132 kV NEHU -	MePTCL		NEHU	Over Current	Not applicable	No	No			8/15/2016 3:32	No SPS	
	NEIGRIHMS			NEIGRIHMS	No tripping	Not applicable	No	No					
	Leshka U 1	MePGCL				Not applicable	No	No			8/15/2016 4:38	No SPS	
	Leshka U 2	MePGCL		Leshka	86A, 86B, 86FT	Not applicable	No	No	Loss of Generation: 126		8/15/2016 4:53	No SPS	0.166
	Leshka U 3	MePGCL				Not applicable	No	No			8/15/2016 6:35	No SPS	
	FIR by the constituent	Yes(Meghalaya)										
	Brief Description of the Incident	Mustem-NEHU kV NEHU - NE	line (132 kV Kh	liehriat-Lumnsnor nd 132 kV Muster	rest of NER Grid thing line kept open for her her tripp	or system require	ment). At 03:	19 Hrs on 15.	08.16, 132 kV	Khliehriat (P	G)-Khliehriat (Me	PTCL) I & I	I lines, 132
32	Antecedent Conditions of NER Grid	(Antecedent G	eneration: 1813	MW , Anteceden	nt Load : 1750 MV	W)							
	Root Cause	Due to lightning	g as informed by I	MePTCL.DR also	checked.								

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janı	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 (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				ed by MePTCL.Spoting resistance to						IS line before 21st	September'1	6 as
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	DP, ZI, R-Y-E, 27.14 Kms.	Not Furnished	No	No			8/16/2016 0:21	No SPS	
	Khliehriat (ME) I	TO WEIGHT		Khliehriat(ME)	No tripping	Not Furnished	No	No			0,10,2010 0.21	110 51 5	
	132 kV Khliehriat (PG) -	MePTCL	8/15/2016 23:51	Khliehriat (PG)	DP, ZI, R-Y-E, 88.53 Kms.	Not Furnished	No	No			8/16/2016 0:30	No SPS	
	Khliehriat (ME) II			Khliehriat(ME)	No tripping	Not Furnished	No	No	Loss of Load:				0.002
	132 kV Mustem-Khliehriat	MePTCL		Mustem	No tripping	Not applicable	No	No	19		8/16/2016 0:03	No SPS	0.003
				Khliehriat	Over Current	Not applicable	No	No		GD-I			
	132 kV NEIGRIHMS -	MePTCL	8/15/2016 23:51	NEIGRIHMS	Over Current	Not applicable	No	No			8/16/2016 0:08	No SPS	
	Khliehriat (ME)			Khliehriat	No tripping	Not applicable	No	No					
	Leshka U 1	MePGCL		Leshka		Not applicable	No	No			8/16/2016 3:15	No SPS	
	Leshka U 2	MePGCL	8/15/2016 23:51	Leshka	86A, 86B, 86FT	Not applicable	No	No	Loss of Generation: 126		Not Yet Restored	No SPS	0.077

			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 (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	
	Leshka U 3	MePGCL		Leshka		Not applicable	No	No			8/16/2016 0:28	No SPS		
	FIR by the constituent	Yes(Meghalaya))											
	Brief Description of the Incident	and 132 kV Mus & II lines, 132 k	at area of Meghalaya was connected with rest of NER Grid through 132 kV Khliehriat (PG)-Khliehriat (MePTCL) I & II lines, 132 kV NEIGRIHMS - Khliehriat (ME) line kV Mustem-Khliehriat line (132 kV Khliehriat-Lumnsnong line kept open for system requirement). At 23:51 Hrs on 15.08.16, 132 kV Khliehriat (PG)-Khliehriat (MePTCL) I is, 132 kV NEIGRIHMS - Khliehriat (ME) line and 132 kV Mustem-Khliehriat line tripped. Due to tripping of these elements, Khleihriat area was separated from rest of NER subsequently collapsed due to load generation mismatch.											
	Antecedent Conditions of NER Grid	(Antecedent Go	edent Generation: 2261 MW, Antecedent Load: 1964 MW)											
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2013	MW , Anteceden	t Load : 1530 MV	W)								
	Root Cause	Most of the tripp	ping are due to lig	ghtning as informe	ed by MePTCL bu	t could not be con	firmed due to	DR unavala	bility.					
	Remedial Measures				ed by MePTCL.Spoting resistance to								6 as	
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	DP, ZI, Y-E, 110.3 Kms.	Not Furnished	No	No			8/19/2016 0:08	No SPS		
	Khliehriat (ME) I	I O W EKUKID		Khliehriat(ME)	No tripping	Not Furnished	No	No			0/19/2010 0:08	no ara		
	132 kV Khliehriat (PG) -	MePTCI	8/18/2016 23:39	Khliehriat (PG)	DP, ZI, Y-E, 36 Kms.	Not Furnished	No	No	Loss of Load: 25	GD-I	8/19/2016 O·09	No SPS	0.002	

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janı	ıary 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
	Khliehriat (ME) II	MCF FCE		Khliehriat(ME)	No tripping	Not Furnished	No	No			0,17,2010 0.07	10010	
	132 kV Leshka -			Leshka	Earth fault	Not applicable	No	No					
	Khleihriat (ME) I	MePTCL		Khliehriat (ME)	No tripping	Not applicable	No	No			8/18/2016 23:48	No SPS	
	132 kV Leshka -	MePTCL		Leshka	Earth fault	Not applicable	No	No			8/18/2016 23:48	No SPS	
	Khleihriat (ME) II			Khliehriat (ME)	No tripping	Not applicable	No	No					
	132 kV Mustem-NEHU	MePTCL	8/18/2016 23:39	Mustem	Earth fault	Not applicable	No	No		GD-I	8/18/2016 23:43	No SPS	0.002
33				NEHU	No tripping	Not applicable	No	No					
	132 kV NEIGRIHMS -	MePTCL		NEIGRIHMS	Over Current	Not applicable	No	No			8/18/2016 23:48	No SPS	
	Khliehriat (ME)	Mer rez		Khliehriat	No tripping	Not applicable	No	No			0,10,2010 23.10	110 51 5	
	Leshka U 1	MePGCL		Leshka	86A, 86B, 86FT & Over	Not applicable	No	No	Loss of Generation:		8/19/2016 0:14		0.041
	Leshka U 2	MePGCL		Leshka	Frequency	Not applicable	No	No	70		8/19/2016 0:15		

			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 (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	Yes(Meghalaya))		-	-	-	-	-		-	_			
	Brief Description of the Incident	and 132 kV Mus II lines, 132 kV	stem-NEHU line NEIGRIHMS - F	(132 kV Khliehria	rest of NER Grid that-Lumnsnong line and 132 kV Mumismatch.	kept open for sy	stem requiren	nent). At 23:3	9 Hrs on 18.08.	16, 132 kV I	Khliehriat (PG)-Kl	hliehriat (Mel	PTCL) I &		
	Antecedent Conditions of NER Grid	(Antecedent Ge	cedent Generation: 1971 MW, Antecedent Load: 2010 MW)												
	Root Cause	Most of the trip	of the tripping are due to lightning as informed by MePTCL but could not be confirmed due to DR unavalability.												
	Remedial Measures				ed by MePTCL.Spoting resistance to								6 as		
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	DP, ZI, R-Y-E, 40.17 Kms.	Not Furnished	No	No			8/25/2016 9:51	No SPS			
	Khliehriat (ME) I		0/25/2017 0.22	Khliehriat(ME)	No tripping	Not Furnished	No	No	Loss of Load:	GD-I			0.003		
	132 kV Khliehriat (PG) -	MePTCL	8/25/2016 9:23	Khliehriat (PG)	DP, ZI, R-Y-E, 73 Kms.	Not Furnished	No	No	24	GD-1	8/25/2016 9:51	No SPS	0.003		
	Khliehriat (ME) II			Khliehriat(ME)	No tripping	Not Furnished	No	No							
	132 kV NEHU - NEIGRIUMS	MePTCL		NEHU	DP,Other info. Not furnished	Not applicable	No	No			8/25/2016 9:37	No SPS			
	NEIGRIHMS		8/25/2016 9:23	NEIGRIHMS	No tripping	Not applicable	No	No	Loss of Load: 24	GD-I			0.003		
	122 bV Mustam NEUH	MaDTCI		Mustem	Earth Fault	Not applicable	No	No	27		₽/25/2016 Q∙2Q	No CDC			

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janı	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 (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	
34	132 KV WIUSTON-NETTO	WICH TCL		NEHU	No tripping	Not applicable	No	No			0/23/2010 9.29	110 51 5		
	FIR by the constituent	Yes(Meghalaya))											
	Brief Description of the Incident	NEIGRIHMS - I kV Khliehriat (F	at area(Mustem,NEIGRIHMS & Khliehriat) of Meghalaya was connected with rest of NER Grid through 132 kV Khliehriat (PG)-Khliehriat (MePTCL) I & II lines, 132 kV HMS - NEHU line and 132 kV Mustem-NEHU line (132kV Lumshnong- Panchgram line was under Shutdown from 10:00 Hrs on 24.08.16). At 09:23 Hrs on 25.08.16, 132 hriat (PG)-Khliehriat (MePTCL) I & II lines, 132 kV NEIGRIHMS - NEHU line and 132 kV Mustem-NEHU line tripped. Due to tripping of these elements, Khleihriat area rated from rest of NER Grid and subsequently collapsed due to no source in this area.											
	Antecedent Conditions of NER Grid	(Antecedent Ge	ent Generation: 1882 MW, Antecedent Load: 1955 MW)											
	Root Cause	Most of the tripp	ping are due to lig	ghtning as informe	ed by MePTCL bu	t could not be cor	ifirmed due to	DR unavala	bility.					
	Remedial Measures				ed by MePTCL.Spoting resistance to								6 as	
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	DP, ZI, R-Y-E, 61 Kms.	Not Furnished	No	No			8/25/2016 13:34	No SPS		
	Khliehriat (ME) I	Y POWERGRID		Khliehriat(ME)	No tripping	Not Furnished	No	No			0,20,201010101	1.0 51 5		
	132 kV Khliehriat (PG) - Khliehriat (ME) II MePTCL 132 kV Mustem-NEHU MePTCL	8/25/2016 13:16	Khliehriat (PG)	DP, ZI, R-Y-E, 38 Kms.	Not Furnished	No	No	Loss of Load:	GD-I	8/25/2016 13:35	No SPS	0.001		
		Wei TeE	8/25/2016 13:16	Khliehriat(ME)	No tripping	Not Furnished	No	No	10	GD-1	0,23,2010 13.33	110 51 5	0.001	
		MaPTCI		Mustem	Over current	Not applicable	No	No			8/25/2016 13:18	No SPS		
	132 KV WIGSTONI-IVERIU	WICH TCL		NEHU	No tripping	Not applicable	No	No			0,23,2010 13.10	110 31 3		

			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 (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	
35	FIR by the constituent	Yes(Meghalaya))		-	-	-	<u>-</u>	-	<u>-</u>	-			
	Brief Description of the Incident	NEHU line and (PG)-Khliehriat	132 kV Mustem- (MePTCL) I & I	NEHU line (132k I lines, 132 kV NE	ya was connected V Lumshnong- Pa EIGRIHMS - NEH due to no source i	anchgram line was	under Shutdo	own from 10:	00 Hrs on 24.0	8.16). At 09:	23 Hrs on 25.08.1	6, 132 kV Kl	hliehriat	
	Antecedent Conditions of NER Grid	(Antecedent Ge	ecedent Generation: 1878 MW, Antecedent Load: 1989 MW)											
	Root Cause	Most of the tripp	t of the tripping are due to lightning as informed by MePTCL but could not be confirmed due to DR unavalability. V yard earthing yet to get completed as informed by MePTCL.Spare Numerical relay will be installed in 132 kV Khliehriat - NEIGRIHMS line before 21st September'16 as											
	Remedial Measures				ed by MePTCL.Spoting resistance to								6 as	
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	DP, ZI, B-E, 30.46 Kms.	Not Furnished	No	No			8/28/2016 11:58	No SPS		
	Khliehriat (ME) I		0/20/2017 10 00	Khliehriat(ME)	No tripping	Not Furnished	No	No	Loss of Load:	GD-I			0.002	
	132 kV Khliehriat (PG) -	MePTCL	8/28/2016 10:08	Khliehriat (PG)	DP, ZI, B-E, 36.47 Kms.	Not Furnished	No	No	23	GD-1	8/28/2016 12:03	No SPS	0.002	
	Khliehriat (ME) II			Khliehriat(ME)	No tripping	Not Furnished	No	No						
	132 kV NEHU - NEIGRIHMS	MePTCL		NEHU	DP,Other info. Not furnished	Not Furnished	No	No			8/28/2016 10:11	No SPS		
	NEIGRIFINIS			NEIGRIHMS	No tripping	Not Furnished	No	No	Loss of Load:				0.002	
	132 kV Muctem-NEHII	MaPTCI	8/28/2016 10:08	Mustem	Earth Fault	Not Furnished	No	No	23	GD-I	೩/ ೨ ೩/ ೨ ೧1 <i>६</i> 1∩·15	No SPS		

			List of	Grid Disturba	nces in North-	Eastern Regio	onal Grid d	uring Janu	ıary 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 K V IVIUSTOIII-NETTO	WICE FCL		NEHU	No tripping	Not Furnished	No	No			0/20/2010 10.13	NO 51 5			
36	Leshka U 1	MePGCL		Leshka	Not Furnished	Not applicable	No	No	Loss of Generation: 35		8/28/2016 12:20	No SPS	0.071		
	FIR by the constituent	Yes(Meghalaya))												
	Brief Description of the Incident	lines, 132 kV N Khliehriat (PG)													
	Antecedent Conditions of NER Grid	(Antecedent Ge	d from rest of NER Grid and subsequently collapsed due to no source in this area. dent Generation: 1901 MW, Antecedent Load: 1688 MW)												
	Root Cause	Most of the trip	ping are due to lig	ghtning as informe	ed by MePTCL bu	t could not be cor	firmed due to	DR unavalal	bility.						
	Remedial Measures				ed by MePTCL.Spoting resistance to								6 as		
	132 kV Khliehriat (PG) -	POWERGRID		Khliehriat (PG)	DP, ZI, R-E, 10.75 Kms.	Not Furnished	No	No			8/24/2016 16:01	No SPS			
	Khliehriat (ME) I	TOWERGRID		Khliehriat(ME)	No tripping	Not Furnished	No	No			8/24/2010 10.01	NOSIS			
	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	8/24/2016 15:45	Khliehriat (PG)	DP, ZI, R-E, 7.435 Kms.	Not Furnished	No	No	Loss of Load:	GD-I	8/24/2016 16:02	No SPS	0.006		
	Khliehriat (ME) II			Khliehriat(ME)	No tripping	Not Furnished	No	No	8		2.2., 2010 10.02	1.0 01 0			
	132 kV Khandong -	DUMED CDIU		Khandong	Over current	Not Furnished	No	No			9/21/2016 16·06	No CDC			

			List of	Grid Disturba	ances in North	Eastern Regio	onal Grid d	luring Janı	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 (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		
	Khliehriat(PG) I	POWERGKID	Khliehriat(PG) No tripping Not Furnished Yes No												
37	FIR by the constituent	Yes(Meghalaya)													
	Brief Description of the	Lumnsnong line Hrs on 24.08.16	& 132 kV NEH ,132 kV Khliehri	shriat) of Meghala U-Mustem line we at (PG)-Khliehrian source in this area	ere kept open for s t (MePTCL) I & II	ystem requiremer	and 132kV	Khliehriat- N	EIGRIHMS lin	e was faulty	since 12:23 Hrs of	23.08.16). A	at 15:45		
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration: 1782	MW , Anteceden	it Load : 1836 M	W)									
	Root Cause	Most of the trip	ping are due to lig	ghtning as informe	ed by MePTCL bu	t could not be cor	firmed due to	DR unavala	bility.						
	Remedial Measures			mpleted as inform nformed, Tower fo									6 as		

			List of (Grid Disturb	ances in No	rth-Eastern R	egional Gri	d during J	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	
38	132 kV Lumshnong - Panchgram	MePTCL & AEGCL	Lumshnong DP, ZI, B-E, 34.37 Kms. Not Furnished No No Loss of Load: 7 GD-I 8/30/2016 18:55 No SPS 0.003 Panchgram DP, ZI, B-E, 16.4 Kms. Not Furnished No											
	FIR by the constituent	No	Panchgram I - ',', Not Furnished No No No											
	Brief Description of the Incident	requirement) . A		0.08.16, 132 kV	/ Aizawl- Luan	_					-Lumnsnong line l s separated from re		-	
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration: MW	, Antecedent l	Load: MW)									
	Root Cause	Fault in the line	due to vegetation	1.										
	Remedial Measures	Vegetation clear	rance to be done	by MePTCL &	AEGCL.Patrol	ling report to be s	ubmitted and	Status of veg	getation clearand	ce to be repor	ted by MePTCL &	& AEGCL.	-	

			List of	Grid Disturb	ances 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
	132 kV Badarpur - Kolasib	POWERGRID	8/15/2016 1:15	Badarpur	DP, ZII, R-B-E, 129.9 Kms.	Not applicable	Yes	No	Loss of Load: 7		8/15/2016 1:34	No SPS	0.004
				Kolasib	No tripping	Not applicable	No	No	Load. 7	GD-I			
	132 kV Aizwal - Kolasih	POWERGRID	8/15/2016 1:15	Aizawl	DP, ZII, R-B-E, 75.8 Kms.	Not applicable	No	No	Loss of		8/15/2016 1:42	No SPS	0.003
39	132 kV Aizwal - Kolasib	TOWERGRID	0/13/2010 1.13	Kolasib	No tripping	Not applicable	No	No	Generation: 6		0/13/2010 1.42	Nosis	0.003
	FIR by the constituent	No											
	Brief Description of the Incident		132 kV Kolasib-		st of NER Grid thr pped. Due to trippi	•							
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1822	MW , Anteced	lent Load : 1850 I	MW)							
	Root Cause	Due to fault in k	Kolasib downstre	am									
	Remedial Measures	Relay settings of to Mizoram.	f Downstream sta	ations to be furn	nished to POWERO	GRID by P&ED N	Mizoram. POV	VERGRID to	review settings	and suggests	s new settings to a	void tripping	of in feeds

			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	POWED CD ID	7/31/2016 5:45	Aizawl	Over current	Not applicable	No	No	Loss of Load:	GD-I	7/31/2016 6:21	No SPS	0.022		
	132 KV Alzwai - Zuangtui	TOWERORID	7/31/2010 3.43	Zuangtui	Not Furnished	Not applicable	No	No	28	GD-1	7/31/2010 0.21	NO 31 3	0.022		
40	FIR by the constituent	No													
	Brief Description of the Incident		of Mizoram was connected with rest of NER Grid through 132 kV Aizawl- Zuangtui line. At 05:45 Hrs on 31.07.16, 132 kV Aizawl- Zuangtui line tripped. Due to selement, Zuangtui area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.												
	Antecedent Conditions of NER Grid	(Antecedent Ge	element, Zuangtui area was separated from rest of NER Grid and subsequently collapsed due to no source in this area. eneration: 2186 MW, Antecedent Load: 1632 MW)												
	Root Cause	Likely due to ph	ase -phase fault	in downstream	of Zuangtui										
	Remedial Measures	POWERGRID I	nas already given	the updated rel	ay settings to Mizo	oram, which Mize	oram is yet to	implement (a	s on 28-Aug-16	5). Mizoram t	o implement soon				
41	132 kV Aizwal - Zuangtui	POWERGRID	7/31/2016	Aizawl	Over current	Not applicable	No	No	Loss of Load:	GD-I	7/31/2016 14:06	No SPS	0.014		
	, and the second		13:37	Zuangtui	No tripping	Not applicable	No	No	28						
	FIR by the constituent	No													
	Brief Description of the Incident				est of NER Grid the rated from rest of I						Aizawl- Zuangtu	i line tripped	. Due to		

			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
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2235	MW , Anteced	lent Load : 1713 I	MW)							
	Root Cause	Likely due to ph	ase -phase fault i	n downstream (of Zuangtui								
	Remedial Measures	POWERGRID I	as already given	the updated rel	ay settings to Mize	oram, which Mize	oram is yet to	implement (a	s on 28-Aug-16	5). Mizoram t	o implement soon	l.	
42	132 kV Aizwal - Zuangtui	POWERGRID	8/3/2016 8:40	Aizawl	Over current	Not applicable	No	No	Loss of Load:	GD-I	8/3/2016 9:04	No SPS	0.01
				Zuangtui	Not Furnished	Not applicable	No	No	27				
	FIR by the constituent	No											
	Brief Description of the Incident				est of NER Grid the rated from rest of I						Aizawl- Zuangtu	i line tripped.	Due to
	Antecedent Conditions of NER Grid	(Antecedent Ge	neration : 1957	MW , Anteced	lent Load : 1802 [MW)							
	Root Cause	Phase to phase d	ownstream fault	like earlier eve	nts. Likely due to	far way nature of	fault, distance	e protection c	ould not operate	e.			
	Remedial Measures	Mizoram to imp current relay.	lement relay sett	ings suggested l	oy POWERGRID.	POWERGRID to	use built-in o	over current fe	eature in the Ma	in Numerica	l relay instead of I	Electro Mecha	anical over

			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	
43	132 kV Doyang -	DoP Nagaland	7/12/2016 2:14	Doyang	Over current	Not applicable	No	No	Loss of Load:	GD-I	7/12/2016 2:52	No SPS	0.014	
	Mokokchung(NA)	Doi 11agaiana	7/12/2010 2:14	Mokokchung(NA)	Over current	Not applicable	No	No	23	GD 1	7/12/2010 2.32	110 51 5	0.014	
	FIR by the constituent	No												
	Brief Description of the Incident	were out due to system requirem	area of Nagaland was connected with rest of NER Grid through 132 kV Doyang-Mokokchung (NA) line. (220 kV Mariani (PG)-Mokokchung (PG) I & II lines to tower collapse at around 01:11 Hrs on 12.07.16, 132 kV Mokokchung (NA)-Marianai(AS) is under long outage & 66 kV Tuengsang-Likimro line kept open for ement). At 02:14 Hrs on 12.07.16, 132 kV Doyang-Mokokchung (NA) line tripped. Due to tripping of this element, Mokokchung area was separated from rest of a subsequently collapsed due to no source in this area.											
	Antecedent Conditions of NER Grid	(Antecedent Ge												
	Root Cause	Likely due to ph	ase -phase fault	n downstream o	of Mokokchung	g end.								
	Remedial Measures	DoP Nagaland to	o check if their C)/C relay at Mo	kokchung is d	irectional or not.								
44	132 kV Doyang -	D DV 1 1	0/2/2017 12 20	Doyang	DP, ZI, R-Y- E, 36.1 Kms.	Not Furnished	No	No	Loss of Load:	CD I	0/2/2016 12 20	M aba	0.002	
44	Mokokchung(NA)	DoP Nagaiand	8/2/2016 12:20	Mokokchung(NA)	Not Furnished	Not Furnished	No	No	15	GD-I	8/2/2016 12:30	No SPS	0.003	
	FIR by the constituent	No												
	Brief Description of the	not in service du for system requi	e to tower collar	ose since 01:11 20 Hrs on 02.08	Hrs on 12.07.10 .16, 132 kV Do	6, 132 kV Mokok oyang-Mokokchu	chung(NA)-M	Iarianai(AS)	line is under lo	ng outage &	hung(PG)-Marian 66 kV Tuengsang- Iokokchung area v	Likimro line	kept open	

			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)	त्रणा 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	(Antecedent Go	eneration: 1997	MW , Anteced	lent Load : 159	96MW)							
	Root Cause	Fault in the line	. Nature of the fa	ult could not be	concluded due	to DR unavailab	ility.						
	Remedial Measures		ange static relay t t associated to thi			•	ang HEP so th	nat proper ana	alysis can be do	ne for disturb	pances associated	with Doyang	HEP.

			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	8/1/2016 10:12	Dimapur (PG)	Earth Fault	Not applicable	No	No	Loss of Load:	GD-I	8/1/2016 10:35	No SPS	0.023
	Dimapur (Nagaland) I	0		Dimapur	Not Furnished	Not applicable	No	No	49				
	FIR by the constituent	No											
45	Brief Description of the Incident	18.04.16). At 10		3.16,132 kV Dir	napur (PG)-Dir						(PG)-Dimapur (Na was separated from		
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2097	MW , Anteced	lent Load : 17	19 MW)							
	Root Cause	Likely due to do	wnstream vegeta	ation fault									
	Remedial Measures	pending consent	from DoP Naga	land.This issue	to be discussed	in next PCC. Do	wnstream rela	ay coordinatio	on to be done by	y DoP Nagala	aland) II line coul and. Relay settings by DoP Nagaland.	of downstrea	
	132 kV Dimapur (PG) -			Dimapur (PG)	Directional Over Current	Not applicable	No	No	Loss of Load:				
46	Dimapur (Nagaland) I	DoP Nagaland	8/11/2016 18:32	Dimapur	Not Furnished	Not applicable	No	No	52	GD-I	8/11/2016 18:45	No SPS	0.024
	FIR by the constituent	No											
	Brief Description of the Incident	18.04.16). At 18		3.16,132 kV Dir	napur (PG)-Dir						(PG)-Dimapur (N was separated fro		

			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
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2185	MW , Anteced	lent Load : 224	49 MW)							
	Root Cause	Likely due to do	wnstream vegeta	ation fault									
	Remedial Measures	pending consent	from DoP Naga	land.This issue	to be discussed	in next PCC. Do	wnstream rela	y coordination	on to be done by	y DoP Nagala	aland) II line coul and. Relay settings by DoP Nagaland.	of downstre	
47	132 kV Dimapur (PG) -	DoD Nagaland	8/15/2016 12:36	Dimapur (PG)	Earth fault	Not applicable	No	No	Loss of Load:	GD-I	8/15/2016 15:14	No SPS	0.148
"	Dimapur (Nagaland) I	Doi 1vagarand	0/13/2010 12:30	Dimapur	Not Furnished	Not applicable	No	No	54	GD-1	0/13/2010 13.14	100515	0.140
	FIR by the constituent	No											
	Brief Description of the Incident	18.04.16). At 12		3.16,132 kV Dir	napur (PG)-Dir						(PG)-Dimapur (Na was separated fro		
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1945	MW , Anteced	lent Load : 155	52 MW)							
	Root Cause	,	wnstream vegeta										
	Remedial Measures	pending consent	from DoP Naga	land.This issue	to be discussed	in next PCC. Do	wnstream rela	y coordination	on to be done by	y DoP Nagala	aland) II line coul and. Relay settings by DoP Nagaland.		
				Dimapur (PG)	Earth fault	Not applicable	No	No					

			List of G	rid Disturba	nces in Nort	th-Eastern Re	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 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	
48	132 kV Dimapur (PG) - Dimapur (Nagaland) I	DoP Nagaland	8/15/2016 15:29	Dimapur	B-Phase jumper snapped,No indication	Not applicable	No	No	Loss of Load: 63	GD-I	8/15/2016 17:26	No SPS	0.129	
	FIR by the constituent	No												
	Brief Description of the Incident	18.04.16). At 15	r area of Nagaland was connected with rest of NER Grid through 132 kV Dimapur (PG)-Dimapur (NA) I line(132 kV Dimapur (PG)-Dimapur (NA) II line is out since 5). At 15:29 Hrs on 15.08.16, 132 kV Dimapur (PG)-Dimapur (NA) I line tripped. Due to tripping of this element, Dimapur area was separated from rest of NER Grid sequently collapsed due tono source in this area. dent Generation: 1883 MW, Antecedent Load: 1661 MW)											
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration: 1883	MW , Anteced	ent Load : 160	61 MW)								
	Root Cause	Likely due to ju	mper snapping											
	Remedial Measures	pending consent		land.This issue	to be discussed						aland) II line coulond. Relay settings			
40	132 kV Dimapur (PG) -	, n.v. 1 1	0.0000000000000000000000000000000000000	Dimapur (PG)	Earth Fault	Not applicable	No	No	Loss of Load:	GD I	0/25/2015 15 00	N apa	0.020	
49	Dimapur (Nagaland) I	DoP Nagaland	8/25/2016 15:50	Dimapur	No tripping	Not applicable	No	No	46	GD-I	8/25/2016 16:00	No SPS	0.038	
	FIR by the constituent	No												
	Brief Description of the Incident	18.04.16). At 15	•	.16,132 kV Dir	napur (PG)-Dii	•				-	(PG)-Dimapur (N a was separated fro			

			List of G	rid Disturba	nces in Nort	th-Eastern Re	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 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	(Antecedent Ge	eneration: 1786	MW , Anteced	lent Load : 160	60 MW)							
	Root Cause	Likely due to vo	egetation fault in	the line or dow	nstream of Kol	nima							
	Remedial Measures		to co-ordinate set done by DoP Nag		Dimapur with	downstream leve	l. Settings alre	eady exchang	ed with Nagala	nd as inform	ed by POWERGR	ID. Vegetatio	on
50	132 kV Dimapur (PG) -	DoP Nagaland	8/31/2016 15:55	Dimapur (PG)	Earth Fault	Not applicable	No	No	Loss of Load:	GD-I	8/31/2016 16:14	No SPS	0.025
	Dimapur (Nagaland) I	J		Dimapur	No tripping	Not applicable	No	No	57				
	FIR by the constituent	No											
	Brief Description of the Incident	18.04.16). At 15		3.16,132 kV Dir	napur (PG)-Dii						(PG)-Dimapur (Na was separated fro		
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration: MW	, Antecedent I	Load: MW)								
	Root Cause	Likely due to vo	egetation fault in	the line or dow	nstream of Kol	nima							
	Remedial Measures		to co-ordinate set done by DoP Nag		Dimapur with	downstream leve	l. Settings alre	eady exchang	ed with Nagala	nd as inform	ed by POWERGR	ID. Vegetation	on

			List of (Grid Disturbar	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 श्रीतर 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
51	132 kV Dimapur (PG) -	POWERGRID & DoP	7/12/2016 12:17	Dimapur (PG)	DP, ZI, B-E	Not Furnished	No	No	Loss of Load: 24	GD-I	7/12/2016 12:30	No SPS	0.018
	Kohima	Nagaland	,,12,2010 1211	Kohima	No tripping	Not Furnished	No	No	Generation Loss: 24	02 1	7, 12, 2010 12.00	110 515	0.010
	FIR by the constituent	No											
	Brief Description of the Incident	for system requi	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 quirement). At 12:17 Hrs on 12.07.16, 132 kV Dimapur(PG)-Kohima line tripped. Due to tripping of this element, Capital area was separated from rest of NER Grid ntly collapsed due to load generation mismatch.										
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1946	MW , Anteceden	t Load : 1801]	MW)							
	Root Cause	Likely due to ve	egetation problen	n in the line									
	Remedial Measures		o co-ordinate sett VERGRID & Dol	tings of 132 kV Di P Nagaland.	imapur with do	wnstream level. S	ettings alread	y exchanged	with Nagaland	as informed l	oy POWERGRID.	Vegetation of	learance to
50	132 kV Dimapur (PG) -	POWERGRID	= /12/201 < 12 2=	Dimapur (PG)	General Trip	Not Furnished	No	No	Loss of Load: 18	CD I	7/12/2016 14 22	N ana	0.047
52	Kohima	& DoP Nagaland	7/13/2016 13:27	Kohima	Not Furnished	Not Furnished	No	No	Generation Loss: 24	GD-I	7/13/2016 14:22	No SPS	0.047
	FIR by the constituent	No											
	Brief Description of the Incident	for system requi	rement). At 13:2'	nnected with rest of Thrs on 13.07.16, to load generation i	132 kV Dimar	•				_			
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2006	MW , Anteceden	t Load : 1859	MW)							

			List of	Grid Disturban	ices in North	ı-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 श्रीतर 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	Relay indication	from both end is	s required to analyz	ze this event.								
	Remedial Measures	Relay indication	from Dimapur e	end and Kohima en	d to be furnish	ed by POWERGE	RID and DoP I	Nagaland resp	pectively.POWI	ERGRID to e	laborate on Gener	al Trip.	
53	132 kV Dimapur (PG) - Kohima	POWERGRID & DoP	7/26/2016	Dimapur (PG)	DP, ZI, R-E	Not Furnished	No	No	Loss of Load: 18& Loss of	GD-I	7/26/2016 14:37	No SPS	0.006
	Kohima	Nagaland	14:17	Kohima	Tripped	Not Furnished	No	No	Generation: 21				
	IR by the constituent	No											
	Brief Description of the Incident	for system requi	rement). At 14:1	nnected with rest o 7 Hrs on 26.07.16, o load generation i	132 kV Dimar								
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2190	MW , Anteceden	t Load : 1488	MW)							
	Root Cause	Likely due to ve	egetation problem	n in the line									
	Remedial Measures		o co-ordinate set VERGRID & Do	tings of 132 kV Di P Nagaland.	mapur with do	wnstream level. S	ettings alread	y exchanged	with Nagaland	as informed l	by POWERGRID.	Vegetation o	elearance to
	132 kV Dimapur (PG) -	POWERGRID & DoP	7/30/2016	Dimapur (PG)	Over current	Not applicable	No	No	Loss of Load: 21& Loss of	GD-I	7/30/2016 14:55	No SPS	0.003
	Kohima	Nagaland	14:45	Kohima	No tripping	Not applicable	No	No	Generation: 8	_	7/30/2010 14.33	110 51 5	0.003

			List of	Grid Disturbar	nces in Nortl	1-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 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
54	FIR by the constituent	No											
	Brief Description of the Incident	for system requi	rement). At 14:4:	nnected with rest of 5 Hrs on 30.07.16, to load generation i	132 kV Dimaj								
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2185	MW , Anteceden	t Load : 1860	MW)							
	Root Cause	Likely due to Pl	hase to phase fau	lt in the line or do	wnstream of Ko	ohima							
	Remedial Measures	POWERGRID t	to co-ordinate sett	tings of 132 kV Di	mapur with do	wnstream level. S	ettings alread	ly exchanged	with Nagaland	as informed l	oy POWERGRID.	,	
55	132 kV Dimapur (PG) -	POWERGRID & DoP	8/3/2016 16:58	Dimapur (PG)	Not Furnished	Not Furnished	No	No	Loss of Load: 20& Loss of	GD-I	8/3/2016 18:10	No SPS	0.024
	Kohima	Nagaland	0,0,2010 1000	Kohima	Tripped	Not Furnished	No	No	Generation: 18		0,0,2010 10110	110 515	0.02
	FIR by the constituent	No											
	Brief Description of the Incident	for system requi	rement). At 16:58	nnected with rest on 8 Hrs on 03.08.16, to load generation in	132 kV Dimap								
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1976	MW , Anteceden	t Load : 1967	MW)							
	Root Cause	Fault was in 132	2 kV Dimapur - II	mphal line due to	Y-phase insulat	or puncturing at l	ocation no. 52	22.Distance p	rotection opera	ted at Dimap	ur(PG) looking at	reverse zone.	

			List of	Grid Disturban	ces in North	ı-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 (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	Distance Relay	mal operation at l	Dimapur(PG),to be	checked by Po	OWERGRID							
56	132 kV Dimapur (PG) -	POWERGRID & DoP	8/8/2016 14:36	Dimapur (PG)	DP, ZI, B-E, Distance not available	Not Furnished	No	No	Loss of Load: 20& Loss of	GD-I	8/8/2016 14:56	No SPS	0.01
	Kohima	Nagaland	0,0,20101100	Kohima	No tripping	Not Furnished	NA	NA	Generation: 21		0,0,201011100	110 515	0.01
	FIR by the constituent	No											
	Brief Description of the Incident	for system requi	rement). At 14:3	nnected with rest of 6 Hrs on 08.08.16, o load generation r	132 kV Dimar								
	Antecedent Conditions of NER Grid	(Antecedent Go	eneration : 1854	MW , Anteceden	t Load : 1906]	MW)							
	Root Cause	Likely due to ve	egetation problen	n in the line									
	Remedial Measures			tings of 132 kV Di P Nagaland.Patroll	-		_		-			Vegetation of	clearance to
57	132 kV Dimapur (PG) -	POWERGRID & DoP	8/11/2016 11:58	Dimapur (PG)	Over Current	Not Furnished	No	No	Loss of Load: 16& Loss of	GD-I	8/11/2016 12:05	No SPS	0.005
	Kohima	Nagaland	222. 2. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	Kohima	No tripping	Not Furnished	NA	NA	Generation: 24		0,11,2010 12.00	110 01 0	0.000

			List of (Grid Disturban	ices 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 (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											
	Brief Description of the Incident	for system requi	rement). At 11:58	nected with rest of 8 Hrs on 11.08.16, 10 load generation r	132 kV Dimar	•				_			
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration: 1939	MW , Anteceden	t Load : 1823	MW)							
	Root Cause	Likely due to Pl	nase to phase faul	t in the line or dov	wnstream of Ko	ohima							
	Remedial Measures	POWERGRID t	o co-ordinate sett	ings of 132 kV Di	mapur with do	wnstream level. S	ettings alread	y exchanged	with Nagaland	as informed l	oy POWERGRID		
	132 kV Dimapur (PG) -	POWERGRID		Dimapur (PG)	General Trip	Not applicable	No	No	Loss of Load:				
58	Kohima	& DoP Nagaland	8/15/2016 15:29	Kohima	No tripping	Not applicable	No	No	Generation: 24		8/15/2016 15:41	No SPS	0.004
	FIR by the constituent	No											
	Brief Description of the Incident	for system requi	rement). At 15:29	nected with rest of Hrs on 15.08.16 of load generation r	, 132 kV Dima								
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration: 1883	MW , Anteceden	t Load : 1661	MW)							

			List of (Grid Disturban	ces 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 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	Relay indication	from Dimapur(F	CG) is required to a	nalyze this eve	nt.							
	Remedial Measures	Relay indication	from Dimapur e	nd to be furnished	by POWERGF	RID.POWERGRI	D to elaborate	on General	Ггір.				
59	132 kV Dimapur (PG) -	POWERGRID & DoP	8/16/2016 10:50	Dimapur (PG)	Over current	Not applicable	No	No	Loss of Load: 15& Loss of	GD-I	8/16/2016 10:55	No SPS	0.001
	Kohima	Nagaland		Kohima	No tripping	Not applicable	No	No	Generation: 24				
	FIR by the constituent	Yes(Nagaland)											
	Brief Description of the Incident	for system requi	rement). At 10:50	nected with rest of OHrs on 16.08.16, o load generation n	132 kV Dimap								
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2013	MW , Antecedent	t Load : 1530 I	MW)							
	Root Cause	Likely due to Pl	hase to phase fau	It in the line or dov	vnstream of Ko	ohima							
	Remedial Measures	POWERGRID t	o co-ordinate sett	ings of 132 kV Di	mapur with do	wnstream level. S	ettings alread	y exchanged	with Nagaland	as informed l	by POWERGRID.		
60	132 kV Dimapur (PG) -	POWERGRID & DoP	8/16/2016 14:19	Dimapur (PG)	Over current	Not applicable	No	No	Loss of Load:	GD-I	8/16/2016 14:23	No SPS	0.002
	Kohima	Nagaland		Kohima	No tripping	Not applicable	No	No	13				
	FIR by the constituent	Yes(Nagaland)											

			List of (Grid Disturbar	ices 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 श्रीतर 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	for system requi	rement). At 14:19	nnected with rest on 9 Hrs on 16.08.16, on source in this	132 kV Dimar								
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2014	MW , Anteceden	t Load : 1711	MW)							
	Root Cause	Likely due to Pl	hase to phase fau	lt in the line or do	wnstream of Ko	ohima							
	Remedial Measures	POWERGRID t	o co-ordinate sett	tings of 132 kV Di	mapur with do	wnstream level. S	ettings alread	y exchanged	with Nagaland	as informed	by POWERGRID.		
61	132 kV Dimapur (PG) -	POWERGRID & DoP	8/16/2016 16:59	Dimapur (PG)	Over current	Not applicable	No	No	Loss of Load: 21& Loss of	GD-I	8/16/2016 17:33	No SPS	0.013
	Kohima	Nagaland		Kohima	No tripping	Not applicable	No	No	Generation: 24	<i>32 1</i>	0,10,201017.88	110 515	0.015
	FIR by the constituent	Yes(Nagaland)											
	Brief Description of the Incident	for system requi	rement). At 16:59	nnected with rest o 9 Hrs on 16.08.16, o load generation i	132 kV Dimar								
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2013	MW , Anteceden	t Load : 1839	MW)							
	Root Cause	Likely due to Pl	hase to phase fau	lt in the line or do	wnstream of Ko	ohima							
	Remedial Measures	POWERGRID t	o co-ordinate sett	tings of 132 kV Di	mapur with do	wnstream level. S	ettings alread	y exchanged	with Nagaland	as informed	by POWERGRID.		

			List of	Grid Disturban	ces in North	n-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 श्रीतर 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		
62	132 kV Dimapur (PG) -	POWERGRID & DoP	8/17/2016 7:37	Dimapur (PG)	Over current	Not applicable	No	No	Loss of Load: 20& Loss of	GD-I	8/17/2016 7:48	No SPS	0.005		
02	Kohima	Nagaland	0/11/2010 7.57	Kohima	No tripping	Not applicable	No	No	Generation: 24	GD 1	0/11/2010 7.40	110 51 5	0.003		
	FIR by the constituent	No													
	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 m requirement). At 07:37 Hrs on 17.08.16, 132 kV Dimapur(PG)-Kohima line tripped. Due to tripping of this element, Capital area was separated from rest of NER Grid equently collapsed due to load generation mismatch.												
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2025	MW , Anteceden	t Load : 1909]	MW)									
	Root Cause	Likely due to Pl	hase to phase fau	It in the line or dov	wnstream of Ko	ohima									
	Remedial Measures	POWERGRID t	o co-ordinate set	tings of 132 kV Di	mapur with do	wnstream level. S	ettings alread	y exchanged	with Nagaland	as informed b	oy POWERGRID.				
63	132 kV Dimapur (PG) -	POWERGRID & DoP	8/19/2016 9:55	Dimapur (PG)	Earth fault	Not applicable	No	No	Loss of Load: 16& Loss of	GD-I	8/19/2016 10:02	No SPS	0.002		
03	Kohima	Nagaland	8/19/2010 9:55	Kohima	Earth fault	Not applicable	No	No	Generation: 24	GD-1	8/19/2010 10:02	NOSES	0.002		
	FIR by the constituent	Yes(Nagaland)													
	Brief Description of the Incident	for system requi	rement). At 09:5	nnected with rest of 5 Hrs on 19.08.16, to load generation r	132 kV Dimap	•				_	•				

			List of	Grid Disturbar	ices 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 (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	(Antecedent G	eneration : 1888	MW , Anteceden	t Load : 1731	MW)								
	Root Cause	Likely due to v	egetation fault in	downstream of Ko	ohima(fault in 1	32 kV Kohima	Kiphire line)							
	Remedial Measures		ERGRID to co-ordinate settings of 132 kV Dimapur with downstream level. Settings already exchanged with Nagaland as informed by POWERGRID. Patrolling report to be itted and Status of vegetation clearance to be reported by DoP Nagaland.											
64	132 kV Dimapur (PG) -	POWERGRID & DoP	8/21/2016 11:33	Dimapur (PG)	Earth fault	Not applicable	No	No	Loss of Load: 14& Loss of	GD-I	8/21/2016 11:53	No SPS	0.006	
	Kohima	Nagaland	0,21,2010 11.00	Kohima	Earth fault	Not applicable	No	No	Generation: 8		0,21,2010 11.33	110 51 5	0.000	
	FIR by the constituent	No												
	Brief Description of the Incident	for system requi	rement). At 11:3	nnected with rest o 3 Hrs on 21.08.16, o load generation i	132 kV Dimar									
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1945	MW , Anteceden	t Load : 1639	MW)								
	Root Cause	Likely due to v	egetation fault in	downstream of Ko	ohima									
	Remedial Measures			tings of 132 kV Di on clearance to be			Settings alread	ly exchanged	with Nagaland	as informed	by POWERGRID.	Patrolling re	eport to be	
65	132 kV Dimapur (PG) -	POWERGRID	0/01/0017 10 05	Dimapur (PG)	Earth fault	Not applicable	No	No	Loss of Load:	CD I	0/01/0017 10 00	N. ana	0.002	

			List of (Grid Disturban	ces in North	n-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		
65	Kohima	& DoP Nagaland	8/21/2016 12:25	Kohima	Earth fault	Not applicable	No	No	13& Loss of Generation: 8	GD-I	8/21/2016 12:33	No SPS	0.003		
	FIR by the constituent	No													
	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 12:25 Hrs on 21.08.16, 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 load generation mismatch.												
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration: 1939	MW , Anteceden	t Load : 1704	MW)									
	Root Cause	Likely due to ve	egetation fault in	downstream of Ko	hima										
	Remedial Measures			ings of 132 kV Di on clearance to be	-		ettings alread	y exchanged	with Nagaland	as informed b	oy POWERGRID.	Patrolling re	port to be		
66	132 kV Dimapur (PG) -	POWERGRID & DoP	8/25/2016 14:40	Dimapur (PG)	Earth Fault	Not applicable	Yes	No	Loss of Load:	GD-I	8/25/2016 14:55	No SPS	0.011		
00	Kohima	Nagaland	8/25/2010 14:40	Kohima	No tripping	Not applicable	No	No	17	GD-1	8/23/2010 14.33	No SPS	0.011		
	FIR by the constituent	No					-	-		-		-			
	Brief Description of the Incident	for system requi	rement). At 14:40	nected with rest of Hrs on 25.08.16, no source in this	132 kV Dimap										
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1884	MW , Anteceden	t Load : 2040	MW)									

			List of (Grid Disturban	ces 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 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	Likely due to ve	egetation fault in	downstream of Ko	hima									
	Remedial Measures		WERGRID to co-ordinate settings of 132 kV Dimapur with downstream level. Settings already exchanged with Nagaland as informed by POWERGRID. Patrolling report to be nitted and Status of vegetation clearance to be reported by DoP Nagaland.											
67	132 kV Dimapur (PG) -	POWERGRID & DoP	8/25/2016 15:40	Dimapur (PG)	DP, ZI, B-E	Not Furnished	No	No	Loss of Load:	GD-I	8/25/2016 16:05	No SPS	0.005	
07	Kohima	Nagaland	8/25/2010 15:40	Kohima	No tripping	Not Furnished	No	No	12	GD-1	8/23/2010 10.03	NO SES	0.003	
	FIR by the constituent	No												
	Brief Description of the Incident	for system requi	rement). At 15:40	nnected with rest of 0 Hrs on 25.08.16, o no source in this	132 kV Dimap									
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 1909	MW , Anteceden	t Load : 1910 I	MW)								
	Root Cause	Likely due to ve	egetation problen	n in the line										
	Remedial Measures		o co-ordinate sett VERGRID & Dol	tings of 132 kV Di P Nagaland.	mapur with do	wnstream level. S	ettings alread	y exchanged	with Nagaland	as informed l	oy POWERGRID.	Vegetation of	clearance to	

			List of	Grid Disturba	nces in North-	Eastern Regio	nal Grid d	uring Janı	ary 2016						
क्रम सं ख्या Sl.	tripping element/	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	8/31/2016 7:50	AGTPP	DP, ZI, Y-B-E, 72.85 Kms.	Not Furnished	No	No			8/31/2016 14:46	SPS-6			
	Kumarghat	TOWERGRID	Kumarghat DP, ZI, Y-B-E, 24.1 Kms. Not Furnished No No No Concernity of Generation: Operated GD-I												
	AGTPP U 3	24.1 Kms. 2500 E055 61 GD-I													
68	FIR by the constituent	Yes(Tripura,AC	TPP)												
	Brief Description of the Incident	Kumarghat line Surjamani Nag	and 132 KV Aga ar- Budhjung Nag	P system was conn rthala- Dhalabil lingar I & II lines, 132 ement, Tripura syst	e kept open for sy KV Surjamani N	ystem requiremen Nagar - Agartala	t and 132 KV I & II lines we	Agartala- Buere out of serv	idhjung Nagar l vice). At 07:51	& II lines, 1	32 KV Palatana-U	Jdaipur line, 1	132 KV		
	Antecedent Conditions of NER Grid	(Antecedent Go	eneration : MW	, Antecedent Load	d: MW)										
	Root Cause	Likely due to lig	ghtning fault but y	vet to conclude due	to absence of DR	output. Kumarg	hat(PG) could	not submit I	OR output due to	some softw	are issue as inform	ned by POW	ERGRID.		
	Remedial Measures	DR to be furnish	hed by POWERG	RID and NEEPCO	for detailed anal	ysis.									

			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
	220 kV Kopili - Misa I	POWERGRID		Kopili	DP, ZI, B-E,28.6 Kms.	Not Furnished	Yes	No			7/7/2016 15:00	No SPS	
	220 KV Kopin Wilsu i	TOWERGRED		Misa	DP, ZI, R-Y-B- E,62 Kms.	Not Furnished	No	No			7/7/2010 13:00	110 51 5	
	220 kV Kopili - Misa II	POWERGRID	7/7/2016 13:46	Kopili	Directional Over current	Not Furnished	Yes	No	Loss of Load:	GD-II	7/7/2016 14:02	No SPS	-
				Misa	No tripping	Not Furnished	No	No	0				
	132 kV Khandong -	POWERGRID		Khandong	Over current	Not applicable	Yes	No			7/7/2016 14:43	No SPS	
	Khliehriat(PG) I	POWERORID		Khliehriat(PG)	No tripping	Not applicable	No	No			7/7/2010 14:43	No SPS	
	132 kV Khandong -	POWERGRID		Khandong	Over current	Not applicable	Yes	No			7/7/2016 14:43	No SPS	
	Khliehriat(PG) II	FOWERGRID		Khliehriat(PG)	No tripping	Not applicable	No	No			7/7/2010 14.43	NOSES	
	132 kV Khandong -	POWERGRID		Khandong	Over current	Not applicable	Yes	No			7/7/2016 14:44	No SPS	
	Umrangso	& AEGCL		Umrangso	No tripping	Not applicable	No	No			7/7/2010 14.44	Nobib	
	Kopili U 1	NEEPCO		Kopili	Excitation failure	Not applicable	Yes	No			7/7/2016 15:51	No SPS	
	Kopili U 2	NEEPCO	7/7/2016 13:46	Kopili	Excitation failure	Not applicable	Yes	No			7/7/2016 16:57	No SPS	
69	Kopili U 3 N	NEEPCO		Kopili	Excitation failure	Not applicable	No	No	Loggof		7/7/2016 14:47	No SPS	
	Kopili U 4	NEEPCO		Kopili	Excitation failure	Not applicable	No	No	Loss of Generation: 257		7/7/2016 14:44	No SPS	0.248
	Khandong U 1	NEEPCO		Khandong	Excitation failure	Not applicable	Yes	No			7/7/2016 15:02	No SPS	

			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		
	Khandong U 2	NEEPCO		Khandong	Excitation failure	Not applicable	Yes	No			7/7/2016 15:25	No SPS			
	Kopili Stg II	NEEPCO	CO Khandong Excitation failure Not applicable Yes No 7/7/2016 15:50 No SPS												
	FIR by the constituent	Yes (Khandong,	Kopili)												
		Khandong - Um	rangso line (220 kII lines,132 kV I	kV Kopili - Mi	ed with rest of NEI sa III line was unde liehriat(PG) I&II lir	r shutdown since	00:15 Hrs of	27.05.2016 d	ue to CB proble	em at Kopili)	. At 13:46 Hrs on	07.07.16, 22	0 kV		
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2012	MW , Anteced	lent Load : 1730 M	IW)									
					1. This fault was cle end (though curren								outputs)		
	Remedial Measures	Over Current se	tting to be rectific	ed till Main-II [Distance Protection	is installed. The (Over Current f	eature is best	to be replaced	with Distanc	e Protection relay.				

			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 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 श्रीतर डी.आर. पेश किया (हां / नहीं) / DR output furnished within 24 hours (Y/N)	24 घंटे के श्रीतर 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 -	POWERGRID		Dimapur	DP, ZI, B-E, 27.08 Kms.	Not Furnished	Yes	Yes			7/27/2016 11:33	No SPS	
	Doyang I			Doyang	Not Furnished	Not Furnished	No	No					
	132 kV Dimapur - Doyang II	POWERGRID	7/27/2016	Dimapur	Back Up Earth Fault	Not Furnished	No	No	Loss of Load:	GD-I	7/27/2016 11:45	No SPS	0.007
	Doyang II		10:55	Doyang	Not Furnished	Not Furnished	No	No	12				0.007
	132 kV Doyang -	Dan Manaland	1	Doyang	Not Furnished	Not Furnished	No	No			7/27/2016 11.41	N. CDC	
	Mokokchung(NA)	DoP Nagaland		Mokokchung(NA)	Tripped	Not Furnished	No	No			7/27/2016 11:41	No SPS	
	Doyang U 1	NEEPCO	7/27/2016 10:55	Doyang	Due to triumin	Not applicable	No	No	If		7/27/2016 11:55	No SPS	
	Doyang U 2	NEEPCO	7/27/2016 10:55	Doyang	Due to tripping of evacuation lines	Not applicable	No	No	Loss of Generation: 68	GD-I	7/27/2016 11:47	No SPS	0.059
70	Doyang U 3	NEEPCO	7/27/2016 10:55	Doyang	ines	Not applicable	No	No	00		7/27/2016 12:10	No SPS	
	FIR by the constituent	No											
	Brief Description of the Incident	(220 kV Mokok long outage & 6 Mokokchung(N	chung(PG)-Mari 6 kV Tuengsang	anai(PG) I & II -Likimro line ke ue to tripping o	em were connected lines were not in se ept open for system f these elements, M	rvice due to towe requirement). At	r collapse sind 10:55 Hrs on	ce 01:11 Hrs 27.07.16, 13	on 12.07.16, 13 32 kV Doyang-	2 kV Mokok Dimapur I &	chung(NA)-Maria II lines & 132 kV	nai(AS) line Doyang-	is under
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration : 2224	MW , Anteced	ent Load : 1830 N	IW)		_	_	_		_	

			List of	Grid Distur	bances 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 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	
		Vegetation prob Dimapur end.	lem caused fault	on 132 kV Dim	napur - Doyang I. P	robably fault was	not cleared or	r cleared after	a delay from D	Ooyang end, v	which caused tripp	ing of circuit	II from	
	Remedial Measures	NEEPCO to inti	PCO to intimate further details like whether CB tripped or not, if tripped reason for delayed clearance, characteristics of Earth fault relay - IDMT/Standard Inverse ex											
	132 kV Dimapur -			Dimapur	DP, ZI, R-B-E, 52.9 Kms.	Not Furnished	No	No						
	Doyang I	POWERGRID	8/15/2016 6:04	Doyang	DP, Other informations not furnished	Not Furnished	No	No			8/15/2016 6:38	No SPS		
	122 1 V D:		0/13/2010 0.04	Dimapur	DP, ZI, R-B-E, 46.25 Kms.	Not Furnished	No	No						
	132 kV Dimapur - Doyang II	POWERGRID		Doyang	DP, Other informations not furnished	Not Furnished	No	No	Loss of Generation:	GD-I	8/15/2016 6:40	No SPS	0.055	
	132 kV Doyang -	DoP Nagaland	8/15/2016 6:05	Doyang	Over current	Not applicable	No	No	72		8/15/2016 6:39	No SPS		
	Mokokchung(NA)	Doi Wagaianu	0/13/2010 0.03	Mokokchung(NA)	Not Furnished	Not applicable	No	No			8/13/2010 0.39	100 31 3		
71	Doyang U 1	NEEPCO 8/15/201	8/15/2016 6:05	Doyang	Elect/ Non- Elect. Lockout	Not applicable	No	No			8/15/2016 6:51	No SPS		
/1	Doyang U 2	NEEPCO	NEEPCO 8/15/2016 6:05	Doyang	86 I	Not applicable	No	No			8/15/2016 6:53	No SPS		
	Doyang U 3	NEEPCO	8/15/2016 6:05	Doyang	Over Speed	Not applicable	No	No			8/15/2016 6:53	No SPS		
	FIR by the constituent	No												

			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)	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	
	Brief Description of the Incident		Power Station was connected with rest of NER Grid through 132 kV Doyang-Dimapur I & II lines & 132 kV Doyang-Mokokchung(NA) line. At 06:05 Hrs on 15.08.16, Doyang-Mokokchung(NA) line tripped (132 kV Doyang-Dimapur I & II lines tripped at 06:04 Hrs on 15.08.16). Due to evacuation problem, Doyang Power Station was out.											
	Antecedent Conditions of NER Grid	(Antecedent Ge	eneration: 1951	MW , Anteced	lent Load : 1707 M	IW)								
	Root Cause	Fault was in 132	in 132 kV Dimapur - Doyang II line due to B-N lightning fault as concluded from DR output.Reason for tripping of other lines to be investigated.											
	Remedial Measures	Distance Protect	tion Relay time s	ettings to be cho	ecked at Doyang en	d and complete re	elay flag detai	ls to be furnis	shed by NEEPO	CO.				

क्रम सं./ Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना हैं / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारोटर के मई महन की महन की समय/Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर.ऑपरेटर के द्वारा प्रदान की गई रिले सेंकेंत / Relay indications proded by CR operator	ऑटो रीक्सोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के श्रीतर डी.आर. पेश किया (हां / नहीं) / DR output furnishe d within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं)/ EL output furnishe d within 24 hours (Y/N)	लोड की हानि (मेगावाट में) / Effect (Loss of Load in MW)	जनरेशन की हानि (भेगावाट में) / Effect (Loss of Generati on in MW)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generati on in MW)	सी.ई.ए विड मापदंड के अनुसार कौन सा श्रेणी! Category as per CEA Grid Standar ds	सी.आर ऑपरेटर के द्वारा प्रदान की गई रेस्टॉरेशन का दिनांक / Date of restoration provided by CR operator	सी.आर ऑपरेटर के दुवारा प्रदान की गई रेस्टॉरेशन की Time of restorati on provided by CR operator	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टोरेशन की समय / Date and time of restoration provided by CR operator	आउटेज की अवधि / Outage duration	एस.पी.ए स संचालन के विवरण / Details of SPS Operatio n	एमयू में कमी/ Loss in MU	Remarks
	+/- 800 kV Biswanath Charali-Agra II	POWERGRID	POWERGRID	1-Jul-16	7:28	7/1/2016 7:28	Biswanath Charali Agra	Pole Control Protection Low Voltage Switching	Not applicable	No No	No No		-	-		1-Jul-16	9:24	7/1/2016 9:24	1:56	No SPS		
1	Root Cause	Due to auxiliary su	apply failure at Agra	end	.	J	<u>I</u>	Switching	J	l				l	l			Į.			l	
	Remedial Measures	-																				
							Bongaigaon	Over Voltage	Not applicable	No	No											
	400 kV Bongaigaon - New Siliguri II	POWERGRID	POWERGRID	1-Jul-16	7:28	7/1/2016 7:28	New Siliguri	DT Received	Not applicable	No	No		-	-	-	1-Jul-16	7:57	7/1/2016 7:57	0:29	No SPS	-	
2	Root Cause	Over Voltage prot	ection mal-operated :	at Bongaigaon as	438 kV was the	instantaneous vol	l .															
									TD.													
	Remedial Measures	Over voltage rela	y settings at Bongaig	gaon to be enecked	1 by POWERGI	KID.DK output of	Biswanath	urnished by POWERGR		No			l	1	l						l	
3	+/- 800 kV Biswanath Charali-Agra II	POWERGRID	POWERGRID	3-Jul-16	12:12	7/3/2016 12:12	Charali	Tripped due to DC line fault at a distance of 1056.7 Km from	Not Furnished		No		-	-	-	3-Jul-16	15:46	7/3/2016 15:46	3:34	No SPS	-	
							Agra	BNC	Not Furnished	No	No											
	Root Cause	Line fault as confi	rmed by POWERGR	ID																		
	Remedial Measures	More details regar	ding the nature of far	ult to be furnished	by POWERGE	RID.Fault is alread	1	formed by POWERGRIE).	ı		1	1	ı	1			1		1	1	
4	+/- 800 kV Biswanath	POWERGRID	POWERGRID	5-Jul-16	9:04	7/5/2016 9:04	Biswanath Charali	Tripped due to DC line fault at a distance	Not applicable	No	No							Not Yet Restored	#VALUE!	No SPS		
	Charali-Agra II						Agra	of 1056 km from BNC	Not applicable	No	No											
	Root Cause	Line fault as confi	rmed by POWERGR	ID																		
	Remedial Measures	More details regar	ding the nature of far	ult to be furnished	by POWERGE	RID.Fault is alread	y attended as inf	ormed by POWERGRIE).													
	132 kV Rangia -	BPC	AEGCL & BPC	6-Jul-16	11:46	7/6/2016 11:46	Rangia	Over current	Not applicable	No	No					6-Jul-16	12:32	7/6/2016 12:32	0:46	No SPS		
	Motonga	Di C	ALGEL & DI C	0-941-10	11.40	7/02010 11:40	Motonga	No tripping	Not applicable	No	No					0341-10	12.02	7/0201012.32	0.40	110 51 5		
6	132 kV Rangia - Motonga	BPC	AEGCL & BPC	6-Jul-16	13:23	7/6/2016 13:23	Rangia	Over current	Not applicable	No	No		-			6-Jul-16	15:17	7/6/2016 15:17	1:54	No SPS		
							Motonga	No tripping	Not applicable	No	No											
	Root Cause		next PCC meeting.																			
	Remedial Measures	To be finalized aft	er next PCC meeting	1	1	1	ı	ı	1	1		ı	1	1	ı —			1			ı —	
7	132 kV Rangia - Motonga	BPC	AEGCL & BPC	8-Jul-16	17:04	7/8/2016 17:04	Rangia	Over current	Not applicable	No	No		-	-	-	8-Jul-16	17:54	7/8/2016 17:54	0:50	No SPS	-	
			. 200				Motonga	No tripping	Not applicable	No	No											
	Root Cause		next PCC meeting.																			
	Remedial Measures	To be finalized aft	er next PCC meeting	1	1	1	Biswanath		1	ı —			ı —	ı —	ı —						ı —	
8	+/- 800 kV Biswanath Charali-Agra I	POWERGRID	POWERGRID	12-Jul-16	12:16	7/12/2016 12:16	Charali	Tripped due to operation of Smoke Detector(VESDA) at	Not Furnished Not Furnished	No No	No		-	-	-	12-Jul-16	13:49	7/12/2016 13:49	1:33	No SPS	-	
	Root Cause	Mal operation of V	/ESDA at Agra End.	<u> </u>	<u> </u>	<u> </u>	. egia	Agra	o. r armsned	.10	.40		<u> </u>	<u> </u>	<u> </u>						<u> </u>	
		operation of V		•																		
	Remedial Measures						Biswanath	Tripped due to		1			1	1	1						1	
9	+/- 800 kV Biswanath Charali-Agra I	POWERGRID	POWERGRID	13-Jul-16	23:39	7/13/2016 23:39	Charali	miscellenous protection operation at	Not Furnished	No	No	-	-	-	-	14-Jul-16	0:47	7/14/2016 0:47	1:08	No SPS	-	
							Agra Biswanath	Agra	Not Furnished	No	No											
10	+/- 800 kV Biswanath Charali-Agra I	POWERGRID	POWERGRID	14-Jul-16	12:50	7/14/2016 12:50	Charali Agra	Tripped due to operation of Smoke Detector(VESDA) at Agra	Not applicable Not applicable	No No	No	-	-	-	-	14-Jul-16	14:15	7/14/2016 14:15	1:25	No SPS	-	Smoke dectector operated at Agra end
	Root Cause	Mal operation of V	/ESDA at Agra End.				•				-	•	•		•		-		-		•	
	Remedial Measures																					
11	132 kV Rangia -	BPC	AEGCL & BPC	15-Jul-16	13:50	7/15/2016 13:50	Rangia	No tripping	Not Furnished	No	No					15-Jul-16	15:42	7/15/2016 15:42	1:52	No SPS		
.,	Motonga	DI C	ALGEL & BFC	1,73ur-10	43.30	.,12,2010 15:50	Motonga	Not Furnished	Not Furnished	No	No					15-9ur-10	.3.42	.713/2010 13:42	1.32	ara		
	Root Cause	Matter referred to	next PCC meeting.																			
	Remedial Measures	To be finalized aft	er next PCC meeting		,											•				•		
12	220 kV Birpara - Salakati II	POWERGRID	POWERGRID	17-Jul-16	19:10	7/17/2016 19:10	Birpara	DPR, Z-I, Y- E, 124.7 Kms.	Not Furnished	No	No		-	-	-	17-Jul-16	19:41	7/17/2016 19:41	0:31	No SPS	-	Restoration time collected from CPCC
		Embrue 1. aac	V DTDC C-11	(Jumes	u I oo see v	hara MAD.	Salakati	No tripping	Not Furnished	No	No	0 PA E.		MI II 22 -	220 1-7-7	TDC 0-2 · ·	п к	o in correct		<u> </u>	<u> </u>	
	Root Cause				at £0¢ 469 Y-Pi	nase. While chargi	ng 220 KV BTPS	S - Salakati II line,Circu	n isreaker at Birq	sara tripped	as both 22	OKV Birps	ara - Salaki	au II line &	. 220 kV B	rrs - Salakati	11 line wer	e in same bus.				
	Remedial Measures	Jumper tightning t	o be done by POWE	RGRID.																		

		1	ı	1		1		DP, ZI, B-E,59.59	1											1		
13	400 kV Bongaigaon - New Siliguri I	POWERGRID	POWERGRID	19-Jul-16	19:51	7/19/2016 19:51	Bongaigaon	Er, Zi, B-E, 39.39 Kms. DP, ZI, B-E, 150.3	Not Furnished Not Furnished	No No	No No		-		-	2-Aug-16	19:18	8/2/2016 19:18	23:27	No SPS	-	Taken to shutdown on 20.07.16 at 10:30
	Root Cause	Lightning induced	B-E fault.Auto recla	use operated succ	essfully but fau	lt was not cleared	New Siliguri	Kms.	Not Furnished	NO	NO											
	Remedial Measures	To be monitored b	y NERTS.If repeated	lly occuring,tower	footing resista	nce to be measure		n of Tower LAs to be ex	splored.	1								1				
14	+/- 800 kV Biswanath Charali-Agra I	POWERGRID	POWERGRID	24-Jul-16	18:12	7/24/2016 18:12	Biswanath Charali Agra	Tripped due to tripping at Agra End Sparking at Filter Bank	Not applicable Not applicable	No No	No No	-	-	-	-	24-Jul-16	19:34	7/24/2016 19:34	1:22	No SPS	-	
	Root Cause	Sparking occurred	in filter bank at Agra	End End						ļ												
	Remedial Measures	-	ı	1		1		DP, ZI, Y-E, 18.93		ı	1							1			1	
15	400 kV Bongaigaon - New Siliguri I	POWERGRID	POWERGRID	2-Aug-16	13:56	8/2/2016 13:56	Bongaigaon New Siliguri	Kms. DP, ZII, Y-E, 216 Kms.	Not Furnished Not Furnished	No Yes	No Yes	-	-	-	-	6-Aug-16	15:51	8/6/2016 15:51	1:55	No SPS	-	
	Root Cause	Due to lightning (c	concluded by checkin	g DR output)																		
	Remedial Measures	POWERGRID is t Lightning Arrester		oting resistance of	all towers in th	te lightning prone	areas. If the resis	stance goes above 10 Of	nm, proper earth	ing to be do	ne by POV	VERGRID	by 1. Cou	nterpoise ea	rthing 2. E	irect earthing	of shield v	vire to ground if no	cessary 3.	Install Tow	/er	
16	+/- 800 kV Biswanath Charali-Agra I	POWERGRID	POWERGRID	10-Aug-16	13:57	8/10/2016 13:57	Biswanath Charali	VESDA Operated at Agra End	Not applicable	No No	No No	-	-			10-Aug-16	19:11	8/10/2016 19:11	5:14	No SPS	-	
							Agra		Not applicable	NO	140											
	Root Cause	Referred to NLDC																				
		-	ı	I		I		DB ZI D P ****		1								1				
17	400 kV Bongaigaon - New Silionri I	POWERGRID	POWERGRID	11-Aug-16	12:44	8/11/2016 12:44	Bongaigaon	DP, ZI, B-E, 24.15 Kms.	Not Furnished	Yes	No					11-Aug-16	21:19	8/11/2016 21:19	8:35	No SPS		
	New Siliguri I						New Siliguri	Not Furnished	Not Furnished	No	No											
1	Root Cause	Permanent fault w	ith high current and h	nigh angle.Root ca	use could not b	oe concluded.																
	Remedial Measures	Remedial measure	s after concluding ro	ot cause.			_															
	+/- 800 kV Biswanath						Biswanath Charali	Corana in thyristor at	Not applicable	No	No											
18	+/- 800 kV Biswanath Charali-Agra II	POWERGRID	POWERGRID	13-Aug-16	19:09	8/13/2016 19:09	Agra	BNC BNC	Not applicable	No	No	_	L-	-	-	16-Aug-16	10:49	8/16/2016 10:49	15:40	No SPS	L	
	Root Cause	Shutdown taken to	attend corona.																			
	Remedial Measures																					
—	400 kV Bongaigaon -						Bongaigaon	DP, ZI, R-B-E, 4.79 Kms.	Not Furnished	Yes	No											
19	New Siliguri IV	ENICL	POWERGRID	15-Aug-16	22:25	8/15/2016 22:25	New Siliguri	DP, ZI, R-B-E, 168 Kms.	Not Furnished	No	No	-	-	-	-	17-Aug-16	13:34	8/17/2016 13:34	15:09	No SPS	-	
	Root Cause	Due to lightning fa	ault (concluded by ch	ecking DR output)																	
	Remedial Measures	POWERGRID is t Lightning Arrester	to check the tower for s.	oting resistance of	all towers in th	ne lightning prone	areas. If the resis	stance goes above 10 Of	nm, proper earth	ing to be do	ne by POV	VERGRID	by 1. Cou	nterpoise ea	rthing 2. E	firect earthing	of shield v	vire to ground if ne	cessary 3.	Install Tow	ver	
20	400 kV Bongaigaon -	ENICL	POWERGRID	13-Aug-16	13:13	8/13/2016 13:13	Bongaigaon	DP, ZI, Y-E, 115.6 Kms.	Not Furnished	No	No					14-Aug-16	21:47	8/14/2016 21:47	8:34	No SPS		
	New Siliguri III						New Siliguri	Not Furnished	Not Furnished	No	No											
	Root Cause	Due to B-N lightni	ing fault (concluded l	by checking DR o	utput)																	
	Remedial Measures	POWERGRID is t Lightning Arrester	to check the tower for s.	oting resistance of	all towers in th	ne lightning prone	areas. If the resis	stance goes above 10 Oh	nm, proper earth	ing to be do	ne by POV	VERGRID	by 1. Cou	nterpoise ea	rthing 2. E	firect earthing	of shield v	vire to ground if ne	cessary 3.	Install Tow	/er	
	132 kV Surjamaninagar-	POWERGRID &	POWERGRID &				Surjamaninagar	Not Furnished	Not Furnished	No	No											
21	Comilla I	PGCB	PGCB	16-Aug-16	16:52	8/16/2016 16:52	Comilla	Not Furnished	Not Furnished	No	No	_	L	-	-	16-Aug-16	17:19	8/16/2016 17:19	0:27	No SPS	,	
	Root Cause	Fault in the Bangla	adesh section of the l	ine.			_											_				
	Remedial Measures	Referred to PCCM	1.																			
			POWERGRID &				Salakati	DP, ZI, R-Y-E, 8.8	Not Furnished	Yes	No											
22	132 kV Salakati- Gelephu	POWERGRID	POWERGRID & BPC	17-Aug-16	15:55	8/17/2016 15:55	Gelephu	Kms. DP, ZI, R-Y-E, 41.89 Kms.	Not Furnished	No	No	-	-	-	-	17-Aug-16	18:19	8/17/2016 18:19	2:24	No SPS	-	
	Root Cause	Due to R-Y-N veg	etation fault (conclud	ded from DR) in the	ne line.																	
	Remedial Measures	Vegetation clearan	ace to be done by PO	WERGRID and st	atus to be repor	rted.	_		_			_	_		_		_	_	_		_	
23	132 kV Salakati- Gelephu	POWERGRID	POWERGRID & BPC	18-Aug-16	1:05	8/18/2016 1:05	Salakati Gelephu	DP, ZI, R-Y-B-E, 7.643 Kms. DP, ZI, R-Y-B-E, 44.21 Kms.	Successful operation Not Furnished	Yes No	No No	-	-	-	-	18-Aug-16	1:30	8/18/2016 1:30	0:25	No SPS	-	
	Root Cause	Due to R-Y-B-N v	egetation fault (conc	luded from DR) in	the line.			→+.21 KIIIS.										1				
	Remedial Measures		ice to be done by PO			rted.																
	Actificular Measures	genmon crearan	to the donie by PO		то ое терог		Por!	DP, ZI, Y-E, 83.5	Not Pro-	v.	M.											
24	400 kV Bongaigaon - New Siliguri IV	ENICL	POWERGRID	18-Aug-16	20:41	8/18/2016 20:41	Bongaigaon New Siliguri	Kms. Not Furnished	Not Furnished Not Furnished	Yes	No No	-	-	-	-	19-Aug-16	19:41	8/19/2016 19:41	23:00	No SPS	-	
	Root Cause	Due to vegetation	fault (concluded fron	n DR as current is	increasing slov	wly and angle betw	een Iy and Vy is	s around 60 degrees) in t	he line.													
	Remedial Measures	Vegetation clearan	ace to be done by PO	WERGRID and st	atus to be repor	rted.	_			-		-	-	-	-		-	_	-			
25	+/- 800 kV Biswanath Charali-Agra II	POWERGRID	POWERGRID	24-Aug-16	12:56	8/24/2016 12:56	Biswanath Charali Agra	DC line fault	Not Furnished Not Furnished	No No	No No	-	-	-	-	24-Aug-16	19:45	8/24/2016 19:45	6:49	No SPS	-	
26	+/- 800 kV Biswanath Charali-Agra I	POWERGRID	POWERGRID	24-Aug-16	12:58	8/24/2016 12:58	Biswanath Charali	DC line fault	Not Furnished	No	No	-	-	-	-	24-Aug-16	15:19	8/24/2016 15:19	2:21	No SPS	-	
	Root Cause	Referred to NLDC	:	<u> </u>		ļ	Agra	<u> </u>	Not Furnished	No	No							<u> </u>		<u> </u>		
	Remedial Measures																					
	- Amount Steasures		I	1		1	p!	No soloni	Not Pro-	AT.	M.											
27	220 kV Birpara - Salakati II	POWERGRID	POWERGRID	25-Aug-16	5:19	8/25/2016 5:19	Birpara Salakati	No tripping DP, ZI, B-E, 109.3 Kms.	Not Furnished Not Furnished	No No	No No	-	-	-	-	25-Aug-16	5:45	8/25/2016 5:45	0:26	No SPS	-	
	Root Cause	Due to fault in the	line.Root cause coul	d not be conclude	d due to unavai	lability of DR out	puts.					·						1		1		
1		l																				

	Remedial Measures	POWERGRID to p	provide DR outputs of	f Salakati end for	this event for I	urther analysis.																
28	132 kV Surjamaninagar- Comilla I	POWERGRID & PGCB	POWERGRID & PGCB	25-Aug-16	20:10	8/25/2016 20:10	Surjamaninagar	DP,No other info. Furnished	Not Furnished	No	No		_	_		25-Aug-16	20:49	8/25/2016 20:49	0:39	No SPS		
	Comina i	PGCB	PGCB				Comilla	No tripping	Not Furnished	No	No											
	Root Cause	Referred to PCCM																				
	Remedial Measures	POWERGRID to 1	furnish proper relay i	ndication as well :	s patrolling re	port.																
29	+/- 800 kV Biswanath	POWERGRID	RID to furnish proper relay indication as well as patrolling report. Biswanath Charali Filter bank tripped on Not applicable No No No																			
29	Charali-Agra II	POWERGRID	POWERGRID	28-Jul-16	5:27	7/28/2016 5:27	Agra	Agra end	Not applicable	No	No	-	-		-	28-Jul-16	9:17	//28/2016 9:17	3:50	No SPS	-	
	Root Cause	Referred to NLDC																				
	Remedial Measures	-																				
30	220 kV Birpara -	POWERGRID	POWERGRID	29-Aug-16	4:27	8/29/2016 4:27	Birpara	DP, ZI, R-E	Successful operation	No	No					29-Aug-16	4:53	8/29/2016 4:53	0:26	No SPS		
	Salakati I			20 100			Salakati	DP, ZI, R-E, 121 Kms.	Not Furnished	No	No											
	Root Cause	Due to fault in the	line.Root cause coul-	d not be conclude	d due to unavai	lability of DR out	puts.															
	Remedial Measures	POWERGRID to p	provide DR outputs of	f Salakati end for	this event for 1	urther analysis.																

इतम सं./ Sl. No.	ट्रिपिंग तत्त्रका नाम / Name of tripping element	मासिक / Owner	डाटा प्रदान करना है /Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना का सनय Time of Even CR operator	सी.आर. अंगरेटर के दुवारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	নীর কা নাদ / Name of Node	सी.आर.ऑपरेटर के दुवारा प्रदान की गई रिसे संक्रत / Reby indications proded by CR operator	ऑटो रीक्सोजर का ऑपरेशन / Operation of Auto Reclose	24 पंटे के श्रीतर डी.आर. फेबा (हां / मही) / DR output furnishe d within 24 hours (Y/N)	24 घंटे के श्रीतर ई.एस. ऐश (हां / महीं)/ EL output furnishin 24 hours (Y/N)	लोड की हानि (मेगावाट में) / Effect (Loss of Load in MW)	जनरेशन जनरेशन की हानि (मेगावाट में)/ Effect (Loss of Generati on in MW)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generati on in MW)	सी.ई.ए विड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standar ds	सी.आर ऑपरेटर के द्वारा प्रदान की गई रेस्टोरेशन का दिनांक / Date of restoration provided by CR operator	सी.आर ऑपरेटर के द्वारा प्रदान की गई रेस्टॉरेशन की समय / Time of restorati on provided by CR operator	सी.आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टॉशन की समय / Date and time of restoration provided by CR operator	आउटेज की अवधि / Outage duration	एस.पी.ए स संघातन के विवरण Details of SPS Operatio	एमयु में कमी/ Loss in MU	Remarks	
31	400 kV Misa - Balipara I	POWERGRID	POWERGRID	6-Jul-16	19:27	7/6/2016 19:27	Misa Balipara	Y-Phase LA blast at Balipara	Not applicable	No No	No No	-	-	-	-	7-Jul-16	13:31	7/7/2016 13:31	18:04	No SPS	-	While Charging the Balipara-Bongaigaon III line, Y phase LA	
	Root Cause	Due to LA blast at	t Balipara, 400 kV M	lisa - Balipara I lir	ne tripped.LA v	vas 20 years old.	Balipara		Not applicable	No	No				<u> </u>					<u> </u>		blast at Balipara end	
	Remedial Measures		nce of the switch yard				GRID																
32	400 kV Silchar - Azara	NETC & AEGCL	POWERGRID &	11-Jul-16	16:52	7/11/2016 16:52	Silchar	DPR, Z-I, R- E, 31.74 Kms.	Successful operation	No	No					11-Jul-16	17:01	7/11/2016 17:01	0:09	No SPS			
			AEGCL		10.52	77152010 10.52	Azara	DPR, Z-I, B- E, 259.4 Kms.	Not Furnished	No	No					1104110	17.01	7711/2010 17:01		140 34 3			<u> </u>
	Root Cause		ing as informed by P																				
	Remedial Measures		otpc &	e checked by AEC	GCL(This matte	r to be discussed	n the next PCC i	DP, ZI, R-E, 40 Kms.	ends to be subm	No No	No No	D & AEGC	1		l -					1			
33	Silchar II	NETC	POWERGRID	26-Jul-16	11:34	7/26/2016 11:34	Silchar	DP, ZI, R-E, 179.2 Kms.	Not Furnished	No	No	-	-	-	-	26-Jul-16	12:10	7/26/2016 12:10	0:36	No SPS	-		
	Root Cause	Root cause yet to f	inalize as there is no	finding after petro	olling as inform	ed by POWERGI	tID and angle is	coming around 30 degre	e durning fault.														
	Remedial Measures	Remedial measure	after finalizing the r	oot cause.		1		T		1			1		1								
34	400 kV Silchar - Byrnihat	NETC & MePTCL	POWERGRID & MePTCL	4-Aug-16	16:06	8/4/2016 16:06	Silchar Byrnihat	Over Voltage Earth Fault, B-ph	Not applicable Not applicable	Yes No	No No		-		-	4-Aug-16	16:47	8/4/2016 16:47	0:41	No SPS	-		
	Root Cause		lightning fault in the																				
	Remedial Measures	DT from Byrnihat by POWERGRID	to be checked (may b by 1. Counterpoise e	te due to over vol arthing 2. Direct e	tage at killing). earthing of shie	DR to be submitte ld wire to ground	d by MePTCL or f necessary 3. In:	f Byrnihat End.POWER stall Tower Lightning A	GRID is to check rresters.	k the tower	footing res	sistance of	all towers i	n the light	ning prone	areas. If the	resistance g	oes above 10 Ohi	m , proper	earthing to	be done		
35	400 kV Balipara- Biswanath Charali II	POWERGRID	POWERGRID	6-Aug-16	2:15	8/6/2016 2:15	Balipara	DP, ZII, R-E, Carrier Aided Trip	Not Furnished	No	No		-			6-Aug-16	2:30	8/6/2016 2:30	0:15	No SPS			
							Biswanath Charali	DP, ZI, R-E, 20.28 Kms.	Not Furnished	No	No												
	Root Cause		ing fault (concluded b			ne lightning prone	areas. If the resis	stance goes above 10 Oh	m . proper earth	ing to be do	ne by POV	WERGRID	by 1. Cour	nterpoise e	arthing 2. I	Direct earthin	g of shield	wire to ground if	necessary	3. Install To	wer		
	Remedial Measures	Lightning Arrester	s.		l		Balipara	DP, ZI, B-E, 40.42	Not Furnished	Yes	No				<u> </u>				<u> </u>	1			
36	400 kV Balipara - Bongaigaon II	POWERGRID	POWERGRID	9-Aug-16	2:12	8/9/2016 2:12	Bongaigaon	Kms. DP, ZII, B-E, 254.1 Kms.	Not Furnished	Yes	No	-	-	-	-	9-Aug-16	2:24	8/9/2016 2:24	0:12	No SPS	-		
	Root Cause	Due to B-N lightni	ing fault (concluded b	by checking DR or	utput).AR succ	essful at Bongaiga	on end.																
	Remedial Measures	DT received at Bal earthing of shield v	lipara end to be inves wire to ground if nece	tigated by POWE essary 3. Install To	RGRID. POW ower Lightning	ERGRID is to che Arresters.		ting resistance of all tow		ng prone ar	eas. If the	resistance	goes above	10 Ohm ,	proper earti	hing to be do	ne by POW	ERGRID by 1. C	ounterpois	se earthing	2. Direct		
37	400 kV Balipara - Bongaigaon III	POWERGRID	POWERGRID	11-Aug-16	1:25	8/11/2016 1:25	Balipara Bongaigaon	Over Voltage Direct Trip received	Not applicable Not applicable	Yes No	No No		-	-	-	11-Aug-16	11:25	8/11/2016 11:25	10:00	No SPS	-		
	Root Cause	Accidental operation	on of reactor protecti	on during mainter	nance works.			l	I						1								
	Remedial Measures	These type of even	ts shall be avoided b	y POWERGRID.																			
38	400 kV Balipara - Bongaigaon IV	POWERGRID	POWERGRID	11-Aug-16	10:57	8/11/2016 10:57	Balipara Bongaigaon	DP, ZII, Y-E, 203.2 Kms. DP, ZI, Y-E, 142.1 Kms.	Not applicable Not Furnished	Yes Yes	No No				-	12-Aug-16	14:22	8/12/2016 14:22	3:25	No SPS	-		
	Root Cause	High resistive fault	t caused by miscrean	ts.					1														
	Remedial Measures	Distance calculation	on of DPR to be revie	ewed by POWERO	GRID.																		
39	400 kV Balipara - Bongaigaon I	POWERGRID	POWERGRID	11-Aug-16	16:09	8/11/2016 16:09	Balipara Bongaigaon	Direct Trip received No tripping	Not applicable Not Furnished	No Yes	No No		-		-	11-Aug-16	17:48	8/11/2016 17:48	1:39	No SPS			
	Root Cause	Accidental operation	on of reactor protecti	on during mainter	nance works.				I						1								
	Remedial Measures	These type of even	ts shall be avoided b	y POWERGRID.																			
40	400 kV Balipara- Biswanath Charali III	POWERGRID	POWERGRID	11-Aug-16	16:26	8/11/2016 16:26	Balipara Biswanath	No tripping Direct Trip received	Not applicable Not Furnished	No No	No No		-		-	11-Aug-16	16:35	8/11/2016 16:35	0:09	No SPS	-		
	Root Cause	Due to PLCC mal-	operation.		l		Charali	Ances 11th received	na runished	NO	NO	<u> </u>	I		<u> </u>				<u> </u>	<u> </u>			
	Remedial Measures	These type of even	ts shall be avoided by	y POWERGRID.																			
41	400 kV Balipara - Bongaigaon IV	POWERGRID	POWERGRID	13-Aug-16	10:49	8/13/2016 10:49	Balipara	DP, ZI, Y-E, 198.19 Kms. DP, ZI, Y-E, 138.6	Not applicable	No	No		-		-	13-Aug-16	11:08	8/13/2016 11:08	0:19	No SPS	-		
	Root Cause	DR indicates low-	esistive Y-N fault are	nd Iy lags Vv bv *	7 Degrees Am	o reclosure atterne	Bongaigaon ted but not succe	Kms.	Not Furnished alt.Root cause co	No ould not be	No concluded	<u> </u>]	<u> </u>	<u> </u>					<u> </u>			
	Remedial Measures		be submitted by PO		J 144			P															
							Balipara	Direct Trip received	Not applicable	Yes	No	1			1					l			
42	400 kV Balipara - Bongaigaon III	POWERGRID	POWERGRID	17-Aug-16	9:35	8/17/2016 9:35	Bongaigaon	Over Voltage	Not applicable	Yes	No	-	-	-	-	17-Aug-16	10:02	8/17/2016 10:02	0:27	No SPS	-		
	Root Cause		tion fault (concluded																				
	Remedial Measures	Vegetation clearan	ce to be done by PO	WERGRID and st	tatus to be repo	rted.But the line to		d this is to be investigate DP, ZI, B-E, 99.5	sd. Successful								,			1			Ш
43	400 kV Bongaigaon - Azara	NETC & AEGCL	POWERGRID & AEGCL	17-Aug-16	14:11	8/17/2016 14:11	Bongaigaon Azara	Kms. DP, ZI, B-E, 83.92 Kms.	operation Not Furnished	Yes No	No No		-	-	-	17-Aug-16	14:29	8/17/2016 14:29	0:18	No SPS	-		
	Root Cause	Due to Y-N lightni	ing fault (concluded l	by checking DR o	utput,Iy lags V	y by 70 Degrees)		****															
	Remedial Measures	AEGCL to review wire to ground if n	the AR scheme at Aa ecessary 3. Install To	zara. NETC & AE	GCL is to ches resters.	k the tower footing	g resistance of a	ll towers in the lightning	prone areas. If t	he resistanc	e goes abo	ove 10 Ohn	n , proper e	arthing to	be done by	POWERGR	ID by 1. Co	unterpoise earthi	ng 2. Direc	et earthing o	f shield		
	400 kV Balipara -	now	now				Balipara	Direct Trip received	Not applicable	No	No												
44	Bongaigaon I	POWERGRID	POWERGRID	23-Aug-16	13:02	8/23/2016 13:02	Bongaigaon	NGR Bucholtz relay operated	Not applicable	No	No		-	-	-	23-Aug-16	13:36	8/23/2016 13:36	0:34	No SPS	-		
	Root Cause	Bucholtz relay of P	NGR operated at Bon	gzigaon.																			
	Remedial Measures	Conditional as wel	l as periodic mainten	nance of equipmer	nts to be done b	y POWERGRID.		1	1														
45	400 kV Balipara -	POWFRGRID	POWERGRID	24.Ano.16	7-57	8/24/2016 7:57	Balipara	Directional Earth Fault	Not applicable	No	No] .	۱. ا	١.	۱.	24. Aug. 16	8-35	8/24/2016 8:35	0.38	No SPS			ł

~	Bongaigaon III			24-1105-10		0,24,2020	Bongaigaon	Direct Trip received	Not applicable	Yes	No	· I	-		1 -			w2=2010 0.00	0.00		-		1 1
	Root Cause	Due to B-N vegeta	tion fault (concluded	from DR) in the	line.																		
	Remedial Measures	Vegetation clearan	ice to be done by POV	WERGRID and st	atus to be repor	ted.																	
46	400 kV Ranganadi-	POWERGRID	NEEPCO &				Ranganadi	Over Voltage	Not applicable	No	No						15.50			N. opo			
46	Biswanath Charali 1	POWERGRID	POWERGRID	27-Aug-16	11:07	8/27/2016 11:07	Biswanath Charali	Direct Trip received	Not applicable	No	No	-	-	-	-	2/-Aug-16	17:59	8/27/2016 17:59	6:52	No SPS	-		
	Root Cause	Over Voltage Rela	ry of Ranganadi end n	nal-operated as V	oltage at Balipa	ra PMU was arou	nd 418 kV at the	time of event.															
	Remedial Measures	Over Voltage Rela	y settings of Rangana	adi to be reviewed	by NEEPCO.I	OR of BNC end to	be submitted by	POWERGRID.															
47	400 kV Silchar -	NETC &	POWERGRID &				Silchar	DP, ZII, R-E, 185 Kms.	Not applicable	Yes	No					28-Aug-16		8/28/2016 2:38	0:23	No SPS			
47	Byrnihat	MePTCL	MePTCL	28-Aug-16	2:15	8/28/2016 2:15	Byrnihat	Over current	Not applicable	No	No	-	-	-	-	28-Aug-16	2:36	8/28/2016 2:38	0:23	NOSPS	-		
	Root Cause	Likely due to R-N	lightning fault(conclu	uded from DR out	put) in the line	-																	
			har and Bymihat to b wire to ground if nece				e tower footing r	esistance of all towers in	the lightning pr	one areas.	If the resist	tance goes a	above 10 O	hm , prop	er earthing	to be done by	POWER	GRID by 1. Counte	erpoise ear	thing 2. Dir	rect		

क्रम सं./ Sl. No.	ट्रिभिंग तत्त्वका नाम / Name of tripping element	मालिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई पटना का समय Time of Event provided by CR operator	सी.आर. संपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Even provided by CR operator	নীর কা নাম / Name of Node	सी.आर. ऑपरेटर के दशरा पदान की गई रिसे संक्ता / Relay indications provided by CR operator	ऑटी रीक्सोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के शीलर डी.आर. पेश किया (क्रां / नहीं)/ DR output furnishe d within 24 hours (Y/N)	24 घंटे के शीलर ई.एस. पेश किया / सही / EL output furnishe d within 24 hours (Y/N)	सोड की हानि (मेगावाट में) / Effect (Loss of Load in MW)	जनरेशन की हानि (मेगावाट में) Effect (Loss of Generati on in MW)	सोड और डनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generati on in MW)	सी.ई.ए विड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standar ds	सी.आर ऑपरेटर के द्वारा प्रदान की गई रस्टोरेशन का दिनांक / Date of restoration provided by CR operator	सी.आर ऑपरेटर के द्वारा प्रदान की गई रेस्टॉरेशन की 'Time of restorati on provided by CR operator	सीआर ऑपरेटर के द्वारा प्रदान की गई दिनांक और रेस्टोशन की समय / Defended by CR operator	आउटेज की अवधि / Outage duration	एस.पी.ए स संघालन के विवरण / Details of SPS Operatio n	एमय् मं कमी/ Loss in MU	Remarks
48	220 kV Misa - Mariani(AS)	POWERGRID	POWERGRID & AEGCL	3-Jul-16	18:17	7/3/2016 18:17	Misa Mariani (AS)	DP, ZI, B-E DP, ZI, B-E	Not Furnished Not Furnished	No No	No No					3-Jul-16	18:35	7/3/2016 18:35	0:18	No SPS	-	
	Root Cause	Line fault due to li	ightning as informed	by POWERGRIE).																	
	Remedial Measures	Reason for non op	eration of Auto recla	use to be furnishe	ed by POWERO	RID.DR from bo	h ends to be subr	nitted by POWERGRIE	and AEGCL.													
49	220 kV Mariani(PG)- Mokokchung (PG) II	POWERGRID	POWERGRID	4-Jul-16	20:44	7/4/2016 20:44	Mariani(PG) Mokokchung(P G)	Over Voltage Direct Trip received	Not applicable Not applicable	No No	No No	-	-			4-Jul-16	21:08	7/4/2016 21:08	0:24	No SPS	-	
	Root Cause	Mal opearation of	Over Voltage relay	at Mariani(PG)																		
	Remedial Measures	DR from both end	s to be submitted by	POWERGRID.																		
50	220 kV Mariani(PG)- Mokokchung (PG) II	POWERGRID	POWERGRID	12-Jul-16	1:11	7/12/2016 1:11	Mariani(PG) Mokokchung(P	Backup Over Current DPR, Z-I, R-Y- E, 24-51 Kms.	Not applicable Not Furnished	No No	No No	-	-	-	-			Not Yet Restored	#VALUE!	No SPS		Tower Collapsed
No	Root Cause	Fault not involvin	g ground as there no	neutral current du	ring the fault(fi	om DR).Root cau	G) se could not be fi		<u> </u>	l	i	<u> </u>	<u> </u>		1					ı		
neutral current	Remedial Measures		after finalizing the r																			
	220 kV Misa - Samaguri		POWERGRID &				Misa	DP, ZI, R-E	Successful operation	No	No		1									
51	220 kV Misa - Samaguri II	POWERGRID	AEGCL	12-Jul-16	14:59	7/12/2016 14:59	Samaguri	Not Furnished	Not Furnished	No	No				-	12-Jul-16	15:24	7/12/2016 15:24	0:25	No SPS	-	
	Root Cause	Flash over occurre	ed at Location No. 49	in R-Phase(Botto	om conductor),c	lue to lightning as	informed by POV	WERGRID.														
	Remedial Measures	Tower footing resi	istance to be checked	by POWERGRII	D.																	
52	220 kV Birpara - Salakati II	POWERGRID	POWERGRID	17-Jul-16	19:10	7/17/2016 19:10	Birpara Salakati	DPR, Z-I, Y-E, 124.7 Kms.	Not Furnished Not Furnished	No No	No No	-	-		-	17-Jul-16	19:41	7/17/2016 19:41	0:31	No SPS		Restoration time collected from CPCC
	Root Cause	Fault was in 220 k	V BTPS - Salakati II	I. Jumper opened	at Loc 469 Y-P	hase. While charg	ing 220 kV BTPS	i - Salakati II line,Circu	it Breaker at Birp	oara tripped	as both 22	0 kV Birp	ara - Salaka	ti II line &	220 kV B	ΓPS - Salaka	ti II line w	ere in same bus.				
	Remedial Measures	Jumper tightning t	to be done by POWE	RGRID.																		
53	220 kV Samaguri - Mariani II	AEGCL	AEGCL	22-Jul-16	7:25	7/22/2016 7:25	Samaguri Mariani	DP, ZI, R-Y-E,33.6 Kms. DP, ZI, R-Y-E,36.7 Kms.	Not Furnished	No No	No No	-	-	-	-	22-Jul-16	15:43	7/22/2016 15:43	8:18	No SPS	-	
	Root Cause	Matter referred to	next PCC meeting.						•			•	•									
	Remedial Measures	To be finalized aft	er next PCC meeting																			
54	220 kV Azara - Sarusajai I	AEGCL	AEGCL	22-Jul-16	12:15	7/22/2016 12:15	Azara Sarusajai	Not Furnished R-Ph, LA burst at Sarusajai	Not applicable	No No	No No	-	-	-	-	22-Jul-16	18:30	7/22/2016 18:30	6:15	No SPS	-	
	Root Cause	Matter referred to	next PCC meeting.																			
	Remedial Measures	To be finalized aft	er next PCC meeting	3																		
55	220 kV Misa - Dimapur I	POWERGRID	POWERGRID	26-Jul-16	14:08	7/26/2016 14:08	Misa	DP, ZI, R-E, 96.27 Kms. DP, ZI, R-E, 20 Kms.	Not Furnished Not Furnished	Yes Yes	No No	-				26-Jul-16	14:32	7/26/2016 14:32	0:24	No SPS	-	Not in Logsheet,Taken from Flash Report
	Root Cause	R-phase insulator	punctured and de-cap	pped at Location ?	No. 315 due to l	lightning.													_			
	Remedial Measures	To be monitored b	y NERTS.If repeated	dly occuring,towe	r footing resista	nce to be measure	d and installation	of Tower LAs to be es	splored.													
56	220 kV Misa - Mariani(PG)	POWERGRID	POWERGRID	30-Jul-16	3:01	7/30/2016 3:01	Misa Mariani (PG)	DP, ZI, R-E, 152.8 Kms.	Not Furnished Not Furnished	Yes No	No No		-	-		30-Jul-16	4:49	7/30/2016 4:49	1:48	No SPS	-	
	Root Cause	Siemens relay at M	fisa over reached.	•	•	•	•		•		•			•			•					
	Remedial Measures	Siemens relay at M	fisa to be tested by P	OWERGRID at t	he earliest.																	
57	220 kV Mariani(PG)- Mokokchung (PG) I	POWERGRID	POWERGRID	9-Aug-16	4:10	8/9/2016 4:10	Mariani(PG) Mokokchung(P G)	Hand Tripped Over Voltage	Not applicable	No No	No No		-		-	9-Aug-16	13:31	8/9/2016 13:31	9:21	No SPS	-	
	Root Cause	Root cause could	not be concluded due	to unavailability	of DR outputs.																	
	Remedial Measures	PLCC link at Mar	iani(PG) and Mokolo	chung(PG) to be o	hecked.DR to I	ne submitted by P	OWERGRID.															
58	220 kV AGBPP - Tinsukia II	AEGCL	NEEPCO & AEGCL	10-Aug-16	15:00	8/10/2016 15:00	AGBPP Tinsukia	DP, ZII, R-Y-B	Not applicable Not applicable	No No	No No	-	-	-	-	10-Aug-16	15:28	8/10/2016 15:28	0:28	No SPS	-	
	Root Cause	Matter referred to	next PCC meeting.	1	1	ı	ı		1	1												
	Remedial Measures	To be finalized in	next PCC meeting																			
59	220 kV Mariani(PG)- Mokokchung (PG) I	POWERGRID	POWERGRID	13-Aug-16	0:07	8/13/2016 0:07	Mariani(PG) Mokokchung(P	DP, ZI, R-E, 22 Kms. DP, ZI, R-E, 24 Kms.	Not Furnished Not Furnished	No No	No No				-	13-Aug-16	0:39	8/13/2016 0:39	0:32	No SPS	-	
	Root Cause	Due to R-N lightn	ing fault (concluded	by checking DR o	output, Ir lags Vi	by 78 degrees)	G)			1								l				
	Remedial Measures	POWERGRID is t	o check the tower fo	oting resistance o	f all towers in t	he lightning prone	areas. If the resis	tance goes above 10 Of	nm , proper earth	ing to be de	one by PO	WERGRID	by 1. Cour	nterpoise ea	arthing 2. E	Pirect earthin	g of shield	wire to ground if	necessary :	3. Install To	ower	
		Lightning Arrester					Mariani(PG)	Over Voltage	Not applicable	No	No	l	l									
60	220 kV Mariani(PG)- Mokokchung (PG) I	POWERGRID	POWERGRID	14-Aug-16	15:25	8/14/2016 15:25	Mokokchung(P G)	Direct Trip received	Not applicable	No	No	-	-	-	-	14-Aug-16	16:25	8/14/2016 16:25	1:00	No SPS	-	
	Root Cause		not be concluded due				omage at Misa	nom ratu).														
	Remedial Measures	POWERGRID to	provide DR outputs	of Mariani & Mol	okchung for th	is event.																

61	220 kV Balipara - Sonabil	AEGCL	POWERGRID & AEGCL	15-Aug-16	12:02	8/15/2016 12:02	Balipara	DP, Y-E, Dist. Not furnished	Not Furnished	Yes	No	-	-	_	-	15-Aug-16	12:22	8/15/2016 12:22	0:20	No SPS	_	
	Root Cause	Due to Y-N fault s	sensed as Zone I fault	-			Sonabil	No tripping	Not Furnished	No	No											
	Remedial Measures	DPR settings at Ba	alipara to be reviewed	by POWERGRIE	D. Patrolling r	eport to be submitt	ed by AEGCL.															
62	220 kV Mariani(PG)- Mokokchung (PG) I	POWERGRID	POWERGRID	16-Aug-16	3:26	8/16/2016 3:26	Mariani(PG) Mokokchung(P	No tripping Over Voltage	Not applicable	No No	No No	-	-	-	-	16-Aug-16	11:40	8/16/2016 11:40	8:14	No SPS	-	
	Root Cause	Root cause could i	not be concluded due	to unavailability o	of DR outputs.	There was no over		(from PMU).	l							I				<u> </u>		
	Remedial Measures	PLCC link at Mari	iani(PG) and Mokoko	hung(PG) to be ch	necked.DR to	be submitted by P	OWERGRID.															
63	220 kV Balipara -	AEGCL	POWERGRID &	22-Aug-16	13:31	8/22/2016 13:31	Balipara	Earth Fault	Not applicable	No	No		,	_		22-Aug-16	14:12	8/22/2016 14:12	0:41	No SPS		
	Sonabil		AEGCL				Sonabil	No tripping	Not applicable	No	No											
	Root Cause	Same time,220 kV	/ 220 kV Samaguri - :	Sonabil line also tr	ripped.Matter	referred to PCC.																
	Remedial Measures	Remedial measure	es after concluding ro	ot cause.																		
64	220 kV Mariani(PG)- Mokokchung (PG) II	POWERGRID	POWERGRID	25-Aug-16	13:54	8/25/2016 13:54	Mariani(PG)	Direct Trip received	Not applicable	No	No					25-Aug-16	14:44	8/25/2016 14:44	0:50	No SPS		
	wokokening (FO) ii						Mokokchung(P G)	Over Voltage	Not applicable	No	No											
	Root Cause	Root cause could i	not be concluded due	to unavailability o	of DR outputs.	There was no over	voltage at Misa	(from PMU).														
	Remedial Measures	PLCC link at Mari	iani(PG) and Mokoko	hung(PG) to be ch	necked.DR to	be submitted by P	OWERGRID.															
65	220 kV Misa - Mariani(AS)	POWERGRID	POWERGRID & AEGCL	30-Aug-16	1:30	8/30/2016 1:30	Misa	DP, ZI, R-E, 142.6 Kms. DP, ZI, R-E, 15.71	Not Furnished	No	No			-		30-Aug-16	3:04	8/30/2016 3:04	1:34	No SPS		
							Mariani (AS)	DP, ZI, R-E, 15.71 Kms.	Not Furnished	No	No											
	Root Cause		line.Root cause coul				puis.															
	Remedial Measures	POWERGRID to	provide DR outputs of	f Salakati end for	this event for	further analysis.	1	ı								1						
66	220 kV Mariani(PG)- Mokokchung (PG) I	POWERGRID	POWERGRID	30-Aug-16	3:03	8/30/2016 3:03	Mariani(PG) Mokokchung(P G)	Over Voltage	Not applicable Not applicable	No No	No No	-	-	-	,	30-Aug-16	13:47	8/30/2016 13:47	10:44	No SPS	-	
	Root Cause	Root cause could i	not be concluded due	to unavailability o	of DR outputs.	There was no over	voltage at Misa	(from PMU).														
	Remedial Measures	PLCC link at Mari	iani(PG) and Mokoko	hung(PG) to be ch	necked.DR to	be submitted by P	OWERGRID.															

क्रम सं. Sl. No.	ट्रिपिंग तत्वका नाम / Name of tripping clement	मासिक / Owner	डाटा घटान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की नई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के दुवारा प्रदान की गई घटना का समय Time of Event provided by CR operator	सी.आर. ऑपरेटर के दुवारा प्रदान की गई पटना के तारिख और समय / Date & Time of Event provided by CR operator	नोड का नाम / Name of Node	सी.आर.ऑपरेटर के दुवारा पदान की गई रिसे संकेत / Relay Indications provided by CR operator	ऑटो रीक्सोजर का रिक्सोजर का Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / DR output furnishe d within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) EL output furnishe d within 24 hours (Y/N)	लोड की हानि (मेगावाट में) / Effect (Loss of Load in MW)	जनरेशन की हानि (मेगावाट में) / Effect (Loss of Generati on in MW)	लोड और जनरेशन की माजाट में) / Effect (Loss of Load & Generati on in MW)	सी.ई.ए विड मापदंड के अनुसार कौन सा श्रेणी! Category as per CEA Grid Standar ds	सी.आर ऑपरेटर के द्वारा पढ़ी गई रेस्टॉरेक्क / Date of restoration provided by CR operator	सी.आर ऑपरेटर के द्वारा प्रदान की गुडे रेस्टोरेशन की समय / Time of restorati on provided by CR operator	सी.आर अंपरेटर के अंपरेटर के उदारा प्रदान की गई दिनांक और स्टरोरेसन की समय / Date and time of restoration provided by CR operator	आउटल की अवधि /	एस.पी.ए स संपातन के विवरण / Details of SPS Operatio n	एमय् में कमी/ Loss in MU	Remarks	
67	220/132 kV Salakati ICT I	POWERGRID	POWERGRID	17-Jul-16	18:46	7/17/2016 18:46	Salakati	Backup Earth Fault	Not applicable	Yes	No	-	-	-	-	17-Jul-16	20:32	7/17/2016 20:32	1:46	No SPS	-		ĺ
68	220/132 kV Salakati ICT II	POWERGRID	POWERGRID	17-Jul-16	19:01	7/17/2016 19:01	Salakati	Over Current	Not applicable	No	No	-	-	-	-	17-Jul-16	20:32	7/17/2016 20:32	1:31	No SPS	-		
	Root Cause	Fault was in 220 k	V BTPS - Salakati II	Jumper opened a	t Loc 469 Y-Pl	hase. Along with l	ine ICT I tripped	on Earth Fault protection	n.														
	Remedial Measures	Jumper tightning to	be done by POWEI	RGRID.																			
69	220/132 kV, 50 MVA ICT II at Balipara	AEGCL	POWERGRID	26-Jul-16	1:55	7/26/2016 1:55	Balipara	Tripped due to operation of Buchholtz	Not applicable	No	No	-	-	-	-	26-Jul-16	17:05	7/26/2016 17:05	15:10	No SPS	-	Restoration time- from CPCC	
	Root Cause	Matter referred to a	next PCC meeting.D	ue to low oil level	as informed by	y POWERGRID.																	
	Remedial Measures	To be finalized after	er next PCC meeting																				
70	400/132 kV ICT I at Biswanath Charali	POWERGRID	POWERGRID	29-Jul-16	5:51	7/29/2016 5:51	Biswanath Charali	Oil Surge Relay Operated	Not applicable	No	No	-	-	-	-	29-Jul-16	8:32	7/29/2016 8:32	2:41	No SPS			
	Root Cause	Oil surge relay mal	-operated due to pro	blem with the div	erter	<u> </u>		•															
	Remedial Measures	POWERGRID to t	ake up this issue and	rectify it at the ea	rliest.																		

क्रम सं./ Sl. No.	ट्रिपिंग तत्त्वका नाम / Name of tripping clement	मासिक / Owner	डाटा घदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के दुवारा प्रदान की गई घटना का घमय' Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की नई घटना के तारिख और समय / Date & Time of Event provided by CR operator	ਜੀਤ का ਜੀਸ / Name of Node	सी.आर.ऑपरेटर के दुशरा प्रदान की गई रिसे संक्रेस / Reby indications proded by CR operator	ऑटो रीक्सोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के श्रीतर डी.आर. फेबा (हां / मही) / DR output furnishe d within 24 hours (Y/N)	24 घंटे के मीतर ई.एस. पेश किया महीं)/ EL output furnishe d viours (Y/N)	लोड की हानि (मेगावाट में) / Effect (Loss of Load in MW)	जनरेशन इति हानि (मेगावाट में) / Effect (Loss of Generati on in MW)	लोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of (Loss d& Generati on in MW)	सी.ई.ए चिड मापदंड के अनुसार कौन सा श्रेणी/ Category as per CEA Grid Standar ds	सी.आर ऑपरेट के दुवारा प्रदान की गई रेस्टोरेशन का दिनांक / Date of restoration provided by CR operator	सी.आर ऑपरेटर के द्वारा प्रदान की गई रेस्टॉरेशन की समय / Time of restorati on provided by CR operator	सी.आर ऑपरेटर के दुवारा प्रदान की गई दिनांक और रेस्टरेशन की समय / Date and time of restoration provided by CR operator	आउटेज श्री अवधि / Outage duration	एस.पी.ए स संचालन के विवरण / Details of SPS Operatio n	एमयू में कमी/ Loss in MU	Remarks	
71	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	POWERGRID & MePTCL	3-Jul-16	3:18	7/3/2016 3:18	Khliehriat (PG) Khliehriat(ME)	DP, Z1, R-Y-B, 64.62 Kms. No tripping	Not Furnished	No No	No No		-		-	3-Jul-16	4:23	7/3/2016 4:23	1:05	No SPS	-		ĺ
72	132 kV Khliehriat (PG) -	MePTCL	POWERGRID & MePTCL	3-Jul-16	5:05	7/3/2016 5:05	Khliehriat (PG)	DP, ZI, R-Y-B	Not Furnished	No	No		-		-	3-Jul-16	5:14	7/3/2016 5:14	0:09	No SPS			ľ
	Khliehriat (ME) II Root Cause	Fault likely due to					Khliehriat(ME)	No tripping	Not Furnished	No	No	<u> </u>		<u> </u>	<u> </u>						<u> </u>		Н
	Remedial Measures	MePTCL to confir	m whether Meghalay	ya has installed No	umerical relays	on their feeders in	n next PCC meeti	ng. Installation of Nume	rical relays on 1	32 kV Khlis	ehriat (PG) - Leshka	(ME) I&II	feeders cor	ald not be o	completed due	to non-avai	lability of shutdov	wn of these	feeders as	Leshka		H
	132 kV Silchar - Imphal		t this time. Matter re				Silchar	DP, ZII, Y-E, 141.5 Kms.	Not Furnished	No	No												H
73	(PG) I	POWERGRID	POWERGRID	30-Jul-16	12:39	7/30/2016 12:39	Imphal (PG)	DP, ZI, R-Y-B-E, 15.77 Kms. DP, ZII, B-E, 192.9	Not Furnished	No	No	_	-	_	-	30-Jul-16	18:32	7/30/2016 18:32	5:53	No SPS	_		l
74	132 kV Silchar - Imphal (PG) II	POWERGRID	POWERGRID	30-Jul-16	12:39	7/30/2016 12:39	Silchar Imphal (PG)	Kms. No tripping	Not Furnished Not Furnished	No No	No No		-	-	-	30-Jul-16	13:06	7/30/2016 13:06	0:27	No SPS			
	Root Cause	Fault was in 132 k	V Silchar - Imphal (I	PG) I line as the ju	amper opened i	n this line and tou	ched the tower.	Relays at Imphal (Mani) end should not	have opera	ted.	I		I	I								
	Remedial Measures	POWERGRID to i	inform location of the	e fault in next PO	C meeting Mal-	operation of Silch	nar end relays on	Line-II to be further invo	estigated by POV	VERGRID.													
75	132 kV Khliehriat (PG) -	MePTCL	POWERGRID &	30-Jul-16	14:38	7/30/2016 14:38	Khliehriat (PG)	DP, ZI, R-Y-B-E, 19.5 Kms.	Not applicable	No	No		_		_	30-Jul-16	14:44	7/30/2016 14:44	0:06	No SPS			
	Khliehriat (ME) II		MePTCL				Khliehriat(ME) Khliehriat (PG)	No tripping DP, ZI, R-Y-B-E, 124	Not applicable	No No	No No												ŀ
76	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL.	POWERGRID & MePTCL	30-Jul-16	14:51	7/30/2016 14:51	Khliehriat(ME)	Kms. No tripping	Not applicable	No	No	-	-	-	-	30-Jul-16	15:18	7/30/2016 15:18	0:27	No SPS	-		
77	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	POWERGRID & MePTCL	30-Jul-16	14:38	7/30/2016 14:38	Khliehriat (PG)	DP, ZII, R-Y-B-E, 19.5 Kms.	Not applicable	No	No	-	-		-	30-Jul-16	14:44	7/30/2016 14:44	0:06	No SPS			l
	Root Cause	To be discussed in	the next PCC meeting	ng.			Khliehriat(ME)	No tripping	Not applicable	No	No	<u> </u>		<u> </u>	<u> </u>						l		\vdash
	Remedial Measures	MePTCL to confir		va has installed N	umerical relays	on their feeders in	n next PCC meeti	ng. Installation of Nume	rical relays on 1	32 kV Khlis	ehriat (PG) - Leshka	(ME) I&II	feeders cor	ald not be	completed due	to non-avai	lability of shutdov	wn of these	feeders as	Leshka		
	132 kV Badarpur -	POWERGRID	POWERGRID				Badarpur	DP, ZII, B-E, 121.6 Kms.	Not applicable	Yes	No					31-Jul-16	15:30	7/31/2016 15:30	0:33	No SPS		B-Phase LA of 20 MVAR Bus reactor	
78	Kumarghat	POWERGRID	POWERGRID				Kumarghat	No tripping	Not applicable	Yes	Yes		-		_	31-Jul-16	15:30	//31/2016 15:30	0:33	No SPS		MVAR Bus reactor blasted	ļ
79	132 kV AGTPP - Kumarghat	POWERGRID	NEEPCO & POWERGRID				AGTPP Kumarghat	DP, ZII, B-E, 96.83 Kms.	Not applicable Not applicable	No Yes	No Yes		-	-	-	31-Jul-16	15:39	7/31/2016 15:39	15:39	No SPS			
80	132 kV Aizwal -	POWERGRID	POWERGRID	31-Jul-16	14:57	7/31/2016 14:57	Aizawl	DP, ZII, B-E, 120 Kms.	Not applicable	Yes	No						15:42		15:42	N. 000			ŀ
80	Kumarghat	POWERGRID	POWERGRID				Kumarghat	DP, ZIV, B-E	Not applicable	Yes	Yes		-	· .	-	31-Jul-16	13042	7/31/2016 15:42	15:42	No SPS			ŀ
81	132 kV P K Bari - Kumarghat	TSECL	TSECL & POWERGRID				PK Bari	Already was in open condition	Not applicable	No	No		-	-	-	31-Jul-16	16:04	7/31/2016 16:04	16:04	No SPS			
-	Root Cause	Due to B-Phase L	A of 20 MVAR Bus i	reactor blast.Back	up impedance	relay of Bus react	Kumarghat or was the only n	DP, ZIV, B-E	Not applicable A.Time delay of	No this protect	No ion is arou	and 900 ms	which is n	nore than z	one II setti	ngs of remote	end.				<u> </u>		\vdash
	Remedial Measures							over the LA also 2. Both															H
	132 kV AGTPP -		NEEPCO &				AGTPP	DP, ZI, B-E	Not Furnished	No	No												
82	Agartala I	POWERGRID	TSECL	3-Aug-16	13:02	8/3/2016 13:02	Agartala	Earth Fault	Not applicable	No	No		-		-	3-Aug-16	13:30	8/3/2016 13:30	0:28	No SPS			
83	132 kV AGTPP - Agartala II	POWERGRID	NEEPCO & TSECL	3-Aug-16	13:06	8/3/2016 13:06	AGTPP Agartala	DP, ZII, B-E Earth Fault	Not applicable	No No	No No		-		-	3-Aug-16	13:15	8/3/2016 13:15	0:09	No SPS			
	Root Cause	R-phase insulator	punctured and de-cap	oped in 132 kV A	GTPP - Agartal	a I line. As per PC		ord, Directional Earth fac				<u> </u>		<u> </u>	<u> </u>		<u> </u>				<u> </u>		H
	Remedial Measures	Proper maintenance	e is to be done by PO	OWERGRID and	delayed trippin	g of 132 kV AGTI	PP - Agartala II li	ine to be investigated															
84	132 kV AGTPP - Agartala I	POWERGRID	NEEPCO & TSECL	3-Aug-16	13:43	8/3/2016 13:43	AGTPP	Directional Over Current	Not applicable	No	No		-			3-Aug-16	14:32	8/3/2016 14:32	0:49	No SPS	-		
-	132 kV AGTPP -	PORTS	NEEPCO &				Agartala AGTPP	Earth Fault Directional Over Current	Not applicable Not applicable	No No	No No												H
85	Agartala II	POWERGRID	TSECL	3-Aug-16	13:46	8/3/2016 13:46	Agartala	No tripping	Not applicable	No	No		-		-	3-Aug-16	13:52	8/3/2016 13:52	0:06	No SPS			Ш
	Root Cause Remedial Measures							ord, Directional Earth fan	alt relay operated	l at both en	is.												$\vdash \vdash$
-	Remedial Measures 220 kV Misa -						PP - Agartala II li Misa	DP, ZI, R-E, 160.6 Kms.	Not Furnished	No	No	<u> </u>		<u> </u>	<u> </u>						<u> </u>		\vdash
86	220 kV Misa - Mariani(PG)	POWERGRID	POWERGRID	14-Aug-16	15:25	8/14/2016 15:25	Mariani (PG)	Direct Trip received	Not applicable	No	No	_		<u> </u>	_	14-Aug-16	15:55	8/14/2016 15:55	0:30	No SPS			Ш
87	220 kV AGBPP - Mariani(PG)	POWERGRID	NEEPCO & POWERGRID	14-Aug-16	15:25	8/14/2016 15:25	AGBPP Mariani (PG)	No tripping Over Voltage	Not applicable Not applicable	No No	No No		-		-	14-Aug-16	16:03	8/14/2016 16:03	0:38	No SPS			
	Root Cause	Misa relay over re	ached for fault in any	of the line from	Mariani(PG).N	o other events who	l	pt tripping of 220 kV A				age at Mar	iani.	<u> </u>	<u> </u>	1	I	1			<u> </u>		H
	Remedial Measures	DPR settings at M	isa to be reviewed by	POWERGRID.																			П
88	220 kV Kopili - Misa III	POWERGRID	NEEPCO &	17-Aug-16	12:54	8/17/2016 12:54	Kopili	DP, ZI, Y-E, 58 Kms.	Not Furnished	No	No			l .	l .	17-Aug-16	13:21	8/17/2016 13:21	0:27	No SPS			
		· · · · · · · · · · · · · · · · · · ·	POWERGRID	vang-10		2010 12:54	Misa Kopili	DP, ZI, Y-E, 15 Kms. DP, ZI, Y-E, 61.64	Not Furnished Not Furnished	No No	No No					vaug-10	- Marie		3.47	413			$\vdash \vdash$
89	220 kV Kopili - Misa III	POWERGRID	NEEPCO & POWERGRID	17-Aug-16	13:22	8/17/2016 13:22	Misa	Kms. DP, ZI, Y-E, 14.7 Kms.	Not Furnished	No	No	_	-	Ŀ	-	17-Aug-16	17:21	8/17/2016 17:21	3:59	No SPS			
	Root Cause	Vegetation fault co	aused by miscreants a	at location No 178	3-179.			-		-							-						Ш
	Remedial Measures	Referred to PCCM	ı. 	I	1	I		W	L		.,	I		I	I	1					I		Ш
90	400 kV Ranganadi- Biswanath Charali 1	POWERGRID	NEEPCO & POWERGRID	18-Aug-16	20:58	8/18/2016 20:58	Ranganadi Biswanath Charali	No tripping Over Voltage	Not applicable	No No	No No		-	-	-	18-Aug-16	21:21	8/18/2016 21:21	0:23	No SPS	-		
91	400 kV Balipara- Biswanath Charali I	POWERGRID	POWERGRID	18-Aug-16	20:58	8/18/2016 20:58	Balipara	Over Voltage	Not applicable	No	No				-	18-Aug-16	21:31	8/18/2016 21:31	0:33	No SPS			
							Biswanath Charali	Over Voltage	Not applicable	No	No]		<u> </u>	<u> </u>]		Ш

	Root Cause	From PMU at Bali	para,voltage was aro	and 438 kV for 1	Minute.																	\Box
	Remedial Measures	Over Voltage Rela	y settings of Biswana	th Charali to be re	eviewed by PO	WERGRID.DR of	BNC end to be	submitted by POWERG	iRID.													
			POWERGRID &				Aizawl	DP, ZII, Y-E, 69.2 Kms.	Not applicable	No	No											
92	132 kV Aizwal - Kolasib	POWERGRID	P&ED, Mizoram	25-Aug-16	16:43	8/25/2016 16:43	Kolasib	No tripping	Not applicable	No	No	•	-	-	1	25-Aug-16	17:44	8/25/2016 17:44	1:01	No SPS		
93	132 kV Badarpur - Kolasib	POWERGRID	POWERGRID & P&ED, Mizoram	25-Aug-16	16:43	8/25/2016 16:43	Badarpur	DP, ZII, Y-E, 129.9 Kms.	Not applicable	No	No					25-Aug-16	17:44	8/25/2016 17:44	1:01	No SPS		
	Kolasib		P&ED, Mizoram	-			Kolasib	No tripping	Not applicable	No	No											
	Root Cause	Due to fault in Kol	asib downstream																			
	Remedial Measures	Relay settings of D																				
94	132 kV Silchar - Srikona I	POWERGRID	D POWERGRID & AEGCI. 30-Aug-16 14-39 8/30/2016 14-39 Srikona Not applicable No No No 30-Aug-16 14-49 8/30/2016 14-49 0.10 SFS 1 operated No SFS 1 No															-				
			D POWERGRID & ASGUL 439 8/30/2016 14:39 Srikona Not applicable No No No 30-Aug-16 14:49 8/30/2016 14:49 0.10 SPS 1 operated Not applicable No No Asgular Ves No 30-Aug-16 15:36 8/30/2016 15:36 0.57 SPS 1 operated Not applicable Ves No 30-Aug-16 15:36 8/30/2016 15:36 0.57 SPS 1 operated Not applicable No No No No No Not applicable No																			
95	132 kV Silchar - Srikona II	POWERGRID	POWERGRID & 30-Aug-16 14:39 8/30/2016 14:39 Srikona Not applicable No No No No No No No N															-				
	132 kV Silchar -	POWERGRID &	POWERGRID &				Silchar	SPS I operated	Not applicable	No	No									SPS 1		
96	Panchgram	AEGCL	AEGCL	30-Aug-16	14:39	8/30/2016 14:39	Panchgram		Not applicable	No	No	-	-	-	-	30-Aug-16	15:02	8/30/2016 15:02	0:23	operated	-	
97	132 kV Badarpur -	POWERGRID	POWERGRID &	30-Aug-16	14:39	8/30/2016 14:39	Badarpur		Not applicable	No	No				-	30-Aug-16	15:07	8/30/2016 15:07	0:28	SPS 1		
	Panchgram		AEGCL	-			Panchgram		Not applicable	No	No									operated		
	Root Cause	SPS-1 operated.																				
	Remedial Measures	•			1	1			1							1		Г				
98	220 kV BTPS - Salakati I	POWERGRID	AEGCL & POWERGRID	31-Aug-16	17:45	8/31/2016 17:45	BTPS Salakati	Tripped No tripping	Not Furnished Not Furnished	No No	No No	-	-	-	-	31-Aug-16	18:48	8/31/2016 18:48	1:03	No SPS	-	
							BTPS	Not Furnished	Not Furnished	No	No											
99	220 kV BTPS - Salakati II	POWERGRID	AEGCL & POWERGRID	31-Aug-16	17:45	8/31/2016 17:45	Salakati	Due to tripping of Bus Coupler	Not Furnished	No	No	-	-	-	-	31-Aug-16	19:01	8/31/2016 19:01	1:16	No SPS	-	
100	220/132 kV, 50 MVA	POWERGRID	POWERGRID	31-Aug-16	17:45	8/31/2016 17:45	Salakati	Earth Fault	Not applicable	No	No					31-Aug-16	19:22	8/31/2016 19:22	1:37	No SPS	_	
100	ICT I at Salakati	POWERGRID	POWERGRID	31-Aug-16	17:45	8/31/2016 17:45								·	-	31-Aug-16	19:22	8/31/2016 19:22	1:37	No SPS	-	
101	220 kV Birpara - Salakati I	POWERGRID	POWERGRID	31-Aug-16	17:45	8/31/2016 17:45	Birpara Salakati	Directional Earth Fault No tripping	Not applicable Not applicable	No No	No No	-	-	-	-	31-Aug-16	19:15	8/31/2016 19:15	1:30	No SPS	-	
	Root Cause	220 kV BTPS - Sa	lakati II jumper open	ed near substation	1.								1	1		<u> </u>		l	1	1	1	
	Remedial Measures	Jumper tightning to	o be done by POWEF	RGRID.Tripping	of 220 kV Birps	ara - Salakati I line	to be investigate	ed.														
					•																	1

क्रम सं./ Sl. No.	ट्रिपिंग तत्त्वका नाम / Name of tripping clement	माजिक / Owner	डाटा घरान करना है / Data to be furnished by	सी.आर. ऑपरेटर के उम्में प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के दवारा प्रदान की गई घटना का समय' Time of Event provided by CR operator	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	ਜੀਤ का ਜਸਸ / Name of Node	सी.आर. ऑपरेटर के दुबारा प्रदान की गई रिते संकेत / Relay indications proded by CR operator	ऑटो रीक्जोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के भीतर डी.आर. पेश किया (हां / नहीं)/ DR output furnishe d within 24 hours (Y/N)	24 घंटे के भीतर ई.एल. पेश किया (हां / नहीं) / EL output furnishe d within 24 hours (Y/N)	सोड की हानि (मेगावाट में) / Effect (Loss of Load in MW)	जनरेशन की हानि (मेगावाट में) / Effect (Loss of Generati on in MW)	सोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generati on in MW)	सी.ई.ए चिड मापदंड के अनुसार करेन सा श्रेणी/ Category as per CEA Grid Standar ds	सी.आर ऑपरेटर के दुवारा प्रदान की गई रेस्टॉरेझ / Date of restoration provided by CR operator	सी-आर ऑपरेटर के द्वारा प्रदान की गई रेस्टोरेशन की समय / Time of restorati on provided by CR operator	सीआर ऑपरेटर के द्वारा प्रदान की गई दिनांक और स्टरोशन की समय / Date and time of restoration provided by CR operator	आउटेज की अवधि / Outage duration	एस.पी.ए स संपालन के विवरण / Details of SPS Operatio	एमय् में कमी/ Loss in MU	Remarks	
102	132 kV Dimapur (PG) -	POWERGRID &	POWERGRID &	1-Jul-16	15:05	7/1/2016 15:05	Dimapur (PG)	DP, ZI, Y-E	Not applicable	No	No	-		_	-	3-Jul-16	19:06	7/3/2016 19:06	4:01	No SPS	_		Ī
	Kohima	l l	DoP,Nagaland				Kohima	Earth Fault	Not applicable	No	No												
	Root Cause		ation problem in the																				
	Remedial Measures	POWERGRID to co	ordinate settings o	f 132 kV Dimapu	ar with downstra	sam level. Setting	г	ed with Nagaland as in R phase Earth fault,							1				1				
103	132 kV Balipara - Depota	AEGCL	POWERGRID & AEGCL	5-Jul-16	22:04	7/5/2016 22:04	Balipara	57.4 Kms. No Indication	Not applicable Not applicable	No No	No No	-	-	-	-	5-Jul-16	23:08	7/5/2016 23:08	1:04	No SPS	÷		
	Root Cause	Matter referred to n	ext PCC meeting.																				
	Remedial Measures	To be finalized after	next PCC meeting																				
104	132 kV Balipura -	AEGCL I	POWERGRID &	6-Jul-16	12:41	7/6/2016 12:41	Balipara	R phase Earth fault, 27.5 Kms.	Not applicable	No	No					6-Jul-16	12:55	7/6/2016 12:55	0:14	No SPS			
104	Depota	AEGCL	AEGCL	6-Jul-16	12:41	7/6/2016 12:41	Depota	No tripping	Not applicable	No	No	,	-		,	6-Jul-16	12:55	7/6/2016 12:55	0:14	No SPS			
	Root Cause	Matter referred to n	ext PCC meeting.																				
	Remedial Measures	To be finalized after	next PCC meeting																				
105	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL.	POWERGRID & MePTCL	8-Jul-16	0:56	7/8/2016 0:56	Khliehriat (PG) Khliehriat(ME)	DP, ZI, R-Y-B- E,27.62 Kms.	Not Furnished Not Furnished	No No	No No			-	-	8-Jul-16	1:14	7/8/2016 1:14	0:18	No SPS	-		
	Root Cause	Fault likely due to li	ghtning.To be discu	assed in the next I	PCC meeting.		Knuenriat(ME)	No tripping	root rurnished	No	No		I		l		1		I	l			
	Remedial Measures	MePTCL to confirm	whether Meghalay	a has installed No	umerical relays	on their feeders in	next PCC meeti	ng. Installation of Nume	erical relays on 1	32 kV Khli	ehriat (PG)	- Leshka	(ME) I&II f	feeders cou	ld not be c	ompleted due	to non-avai	lability of shutdo	wn of thes	e feeders as	Leshka		
	132 kV Dimapur -	generation is full at	this time. Matter ret	ferred to PCC me	ecting.		Dimapur	DPR, Z-I, B- E, 4.71 Kms.	Not Furnished	No	No									1			
106	132 kV Dimapur - Bokajan	AEGCL	AEGCL	13-Jul-16	13:30	7/13/2016 13:30	Bokajan	Not Furnished	Not Furnished	No	No	-	-	-	-	13-Jul-16	14:03	7/13/2016 14:03	0:33	No SPS	-		<u> </u>
	Root Cause	Matter referred to n	ext PCC meeting.																				
	Remedial Measures	To be finalized after	next PCC meeting																				
107	132 kV Dimapur (PG) - Dimapur (Nagaland) I	DoP Nagaland	POWERGRID & DoP,Nagaland	13-Jul-16	13:30	7/13/2016 13:30	Dimapur (PG)	Over current Not Furnished	Not applicable Not applicable	No No	No No	-				13-Jul-16	15:56	7/13/2016 15:56	2:26	No SPS			
	Root Cause	DR to be furnished	by POWERGRID fo	or Dimapur(PG) e	end to check wh	ether the event is	a case of over lo	ading/phase to phase far										<u> </u>					
	Remedial Measures	132 kV Dimapur (P	G) - Dimapur (Naga	aland) II line to be	e restored at the	earliest by DoP,N	Kagaland.																
	132 kV Balipara -		POWERGRID &				Balipara	DPR, Z-III, B- E, 30.5 Kms.	Not applicable	No	No												
108	Depota	AEGCL	AEGCL	15-Jul-16	0:17	7/15/2016 0:17	Depota	No tripping	Not applicable	No	No	-	-	-	-	15-Jul-16	0:55	7/15/2016 0:55	0:38	No SPS	-		
	Root Cause	Matter referred to n	ext PCC meeting.																				
	Remedial Measures	To be finalized after	next PCC meeting																				
109	132 kV Badarpur - Kolasib	POWERGRID	POWERGRID & P&ED, Mizoram	15-Jul-16	17:31	7/15/2016 17:31	Badarpur	DPR, Z-II, B- E, 105.92 Kms.	Not applicable	Yes	No					15-Jul-16	17:59	7/15/2016 17:59	0:28	No SPS			
	Kotasib		P&ED, Mizoram				Kolasib	No Indication	Not applicable	No	No												
	Root Cause	Fault was in Downs	tream of Kolasib																				
	Remedial Measures	POWERGRID has a	already given the up	dated relay settin	igs to Mizoram,	which Mizoram is	s yet to implemen	nt (as on 28-Aug-16). M	lizoram to imples	ment soon.													
110	132 kV Jiribum - Aizwal	POWERGRID	POWERGRID	19-Jul-16	12:29	7/19/2016 12:29	Jiribam	DP, ZII, Y-E, 147.2 Kms. DP, ZII, Y-E, 25.25	Not applicable	Yes	No No	-	-	-	-	19-Jul-16	12:43	7/19/2016 12:43	0:14	No SPS	-		
	Root Cause	High resistive veget	ation fault in the lin	e as angle from P	OR comes aroun	d zero.	Aizawl	Kms.	Not applicable	Yes	No						1		<u> </u>	l	l		
	Remedial Measures	Resistive reach to be					anged as per Ran	nakrishna Task Force.To	o be discussed in	the next PC	CC meeting	Relay ind	lication at th	he Aizwal	end to be c	hecked by PC	WERGRIE	Vegetation clear	rance in thi	s line to be	done by		
\vdash		POWERGRID.					Dimapur	No Tripping	Not applicable	No	No												
111	132 kV Dimapur - Doyang II	POWERGRID	POWERGRID & NEEPCO	25-Jul-16	10:45	7/25/2016 10:45	Doyung	Earth Fault	Not applicable	No	No		Ŀ	-	Ŀ	25-Jul-16	11:26	7/25/2016 11:26	0:41	No SPS	_	Relay indi-Dim(PG) from CPCC	L
	Root Cause	DC earth fault at Do	yang																				
	Remedial Measures	NEEPCO to take up	this issue and recti	fy this problem at	t the earliest.																		
112	132 kV Dimapur - Imphal	POWERGRID	POWERGRID	30-Jul-16	8:28	7/30/2016 8:28	Dimapur	DP, ZII, R-Y-E, 68.46 Kms. DP, ZII, R-Y-E, 85.83	Not Furnished Not Furnished	Yes No	Yes	-	-	-	-	30-Jul-16	8:59	7/30/2016 8:59	0:31	No SPS	-	Not in Logsheet, from CPCC	
No	Root Cause	Fault not involving	ground as there no r	neutral current du	ring the fault(fr	om DR).Root cau		Kms.		I				I	l		1		<u> </u>	<u> </u>			
No neutral current	Remedial Measures		fter finalizing the re																				
H							Jiribam	Earth Fault, R,Y,B-Ph	Not applicable	Yes	Yes									l			
113	132 kV Jiribam - Aizwal	POWERGRID	POWERGRID	30-Jul-16	12:04	7/30/2016 12:04	Aizawl	DP, ZII, R-Y-E, 147.2 Kms.	Not applicable	Yes	Yes	-	-	-	-	30-Jul-16	12:30	7/30/2016 12:30	0:26	No SPS	-		L
	Root Cause	High resistive veget																					
	Remedial Measures	Resistive reach to be POWERGRID.	e increased.Earlier r	esistive reach wa	is set at 20 Ohm	s.Now settings ch		nakrishna Task Force.To	o be discussed in	the next Po	CC meeting	Relay ind	lication at th	he Aizwal	end to be o	hecked by PC	WERGRIE	Vegetation clear	rance in thi	s line to be	done by		
114	132 kV Dimapur - Doyang II	POWERGRID	POWERGRID & NEEPCO	31-Jul-16	11:19	7/31/2016 11:19	Dimapur Doyang	DP, ZI, R-E, 63.9 Kms. DP, ZI, R-E, 45.5	Not Furnished Not Furnished	No No	No No	-	-	-	-			Not Yet restored	#VALUE	No SPS	-		
	Root Cause	Fault in the line due	to vegetation proble	em	1	<u> </u>	Doyung	Kms.	cumished	1910	NO		ı	1	1		1		L		l		
	Remedial Measures		e to be done by POV																				
115	132 kV Silchar -	POWERGRID &	POWERGRID &	1-Aug-16	13:19	8/1/2016 13:19	Silchar	DP, ZIII, R-E, 46.46 Kms.	Not applicable	No	No					1-Aug-16	18:53	8/1/2016 18:53	5:34	No SPS			
115	Panchgram	AEGCL	AEGCL				Panchgram	Not Furnished	Not applicable	No	No	_		-		1-Aug-16	10:33	w1/2016 18:53	3:54	NO SPS			
1	Root Cause	High resistive R-Ph	ase fault turned in to	o R-B-E fault (cor	ncluded by chec	king DR output),	downstream of P	anchgram.															

ı	Remedial Measures	Zone III reach and	timing settings to be	reviewed by POU	VERGRID V~	zetation clearance	to be done by M	SPCL and status to be re	eported													
-			g, to be		76		Jiribam	Over current	Not applicable	No	No											
116	132 kV Jiribam - Aizwal	POWERGRID	POWERGRID	3-Aug-16	10:20	8/3/2016 10:20	Aizawl	Back Up Earth Fault	Not applicable	Yes	No	-	-	-	-	3-Aug-16	12:36	8/3/2016 12:36	2:16	No SPS	-	
	Root Cause	High resistive faul	t (concluded by check	king DR output), i	in the line as bo	th end protective	relays operated.															
	Remedial Measures	Resistive reach of	DPR to be reviewed	by POWERGRID). Vegetation cl	earance to be done	by POWERGR	ID and status to be report	ted.Patrolling re	port for the	event to be	furnished	L									
117	132 kV Dimapur -	DOWEDOWN	DOUTE CO.			0/3/3047	Dimapur	DP, ZI, Y-E, 1 Kms.	Not Furnished	No	No					4 4 12	0.00	8/4/2014 0 =-	15:55	N. one		
117	Imphal	POWERGRID	POWERGRID	3-Aug-16	16:58	8/3/2016 16:58	Imphal	DP, ZII, Y-E, 153.7 Kms.	Not Furnished	No	No	-			_	4-Aug-16	8:53	8/4/2016 8:53	15:55	No SPS	_	
	Root Cause	Y-phase insulator p	punctured at Location	n 522.																		
	Remedial Measures	Proper maintenanc	ce is to be done by PC	OWERGRID .Porc	celein insulator	will replaced soor	n by polymer ins	ulator as informed by PC	OWERGRID.													
118	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	POWERGRID & MePTCL	3-Aug-16	17:21	8/3/2016 17:21	Khliehriat (PG)	DP, ZI, R-Y-B-E, 101.5 Kms.	Not Furnished	No	No	-			-	3-Aug-16	17:38	8/3/2016 17:38	0:17	No SPS		
				_			Khliehriat(ME)	No tripping	Not Furnished	No	No						<u> </u>					
	Root Cause		the next PCC meeting																			<u> </u>
	Remedial Measures	3.5 kV yard earthin furnished by MePI	ig yet to get complete ICL_POWERGID to	ed as informed by furnish DR output	MePfCL.Span t of Khliehriat(e Numerical relay PG).	will be installed	in 132 kV Khliehriat - N	REIGRIHMS line	e before 21s	st Septembe	er'16 as inf	ormed. Ear	thing statu	is to be info	rmed, Tower	tooting res	istance to be mea	sured and p	natrolling re	port to be	
119	132 kV Dimapur - Imphal	POWERGRID	POWERGRID	4-Aug-16	10:59	8/4/2016 10:59	Dimapur	DP, ZI, R-E, 102.4 Kms. DP, ZI, R-E, 50.26	Not Furnished	Yes	Yes	-	-	-	-	4-Aug-16	18:53	8/4/2016 18:53	7:54	No SPS	-	
							Imphal	Kms.	Not Furnished	No	No											-
	Root Cause		punctured at Location																			
	Remedial Measures	Proper maintenanc	e is to be done by PC	OWERGRID .Porc	celein insulator	will replaced soor	ı	DP, ZII, B-E, 120.1									1		I	1		
120	132 kV Aizwal - Kumarghat	POWERGRID	POWERGRID	4-Aug-16	11:03	8/4/2016 11:03	Aizawl Kumarehat	Kms. DP, ZI, R-B-E, 74.1	Not Furnished Not Furnished	No Yes	No Yes	-	-	-	-	4-Aug-16	11:22	8/4/2016 11:22	0:19	No SPS	-	
	Root Cause	R-Phase vegetation	n fault (concluded by	checking DR out	put,Ir lags Vr b	y 17 degrees).	guat	Kms.	umisied	1					l .		<u> </u>		1	<u> </u>		
	Remedial Measures						Vegetation cle	arance is to be done by	POWERGRID as	nd status to	be reported	i.										
							Doyang	Power Swing	Not applicable	No	No											
121	132 kV Doyang - Mokokchung(NA)	DoP Nagaland	NEEPCO & DoP,Nagaland	4-Aug-16	17:56	8/4/2016 17:56	Mokokchung(N A)	Not Furnished	Not applicable	No	No	-	-	-	-	4-Aug-16	19:30	8/4/2016 19:30	1:34	No SPS	-	
	Root Cause	Matter referred to	next PCC meeting.		<u> </u>		I .,	<u> </u>	<u> </u>		l .				l .		<u> </u>		<u> </u>	<u> </u>		
	Remedial Measures		next PCC meeting																			
		oc imanzeu in i					Loktak	DP, ZII, R-Y-E, 76.47	Lockout	Yes	No											
122	132 kV Loktak - Jiribam(PG)	POWERGRID	NHPC & POWERGRID	5-Aug-16	14:56	8/5/2016 14:56	Jiribam(PG)	Kms. DP, ZI, R-Y-E	Successful operation	Yes	Yes	-	-	-	-	5-Aug-16	15:08	8/5/2016 15:08	0:12	No SPS	-	
	Root Cause	Likely due to R-Y	lightning fault in the	line.			•	•		•							•					
	Remedial Measures	PLCC link at Lokt earthing 2. Direct of	ak to be checked.AR earthing of shield wir	scheme at Loktak re to ground if nec	and Jiribam to essary 3. Instal	be reviewed.POV Tower Lightning	WERGRID is to Arresters.	check the tower footing	resistance of all t	towers in th	e lightning	prone area	s. If the res	sistance go	ses above 10	Ohm , prope	er earthing	to be done by PO	WERGRIE	by 1. Cou	nterpoise	
	132 kV Khliehriat (PG) -	MePTCL	POWERGRID &	8-Aug-16	23:25	8/8/2016 23:25	Khliehriat (PG)	DP, ZI, R-Y-E, 15.85 Kms.	Not Furnished	No	No					9 Av- 10	23:43	8/8/2016 23:43	0:18	No SPS		
-:23	Khliehriat (ME) II	mericL	MePTCL	o-Aug-16	23:25	3/0/2010 23:25	Khliehriat(ME)	No tripping	Not Furnished	NA	NA		-	-	-	8-Aug-16	23:45	oror2010 25:43	U:18	140 SPS	-	
	Root Cause	To be discussed in	the next PCC meeting	ng.																		 L
	Remedial Measures	33 kV yard earthin furnished by MeP1	ig yet to get complete ICL_POWERGID to	ed as informed by furnish DR output	MePTCL.Span t of Khliehriat(Numerical relay PG).	will be installed	in 132 kV Khliehriat - N	EIGRIHMS line	before 21s	st Septembe	er'16 as info	ormed. Ear	thing statu	s to be info	rmed, Tower	footing res	istance to be mea	sured and p	oatrolling re	port to be	
124	132 kV Dimapur - Imphal	POWERGRID	POWERGRID	11-Aug-16	16:26	8/11/2016 16:26	Dimapur	DP, ZI, Y-B-E, 81.9 Kms.	Not Furnished	Yes	No	-	-		-	12-Aug-16	13:40	8/12/2016 13:40	21:14	No SPS	-	-
		Due to Y-R-N lieh	stoing for b		<u> </u>		Imphal	DP, ZI, Y-B-E, 91.42 Kms.	Not Furnished	No	No						<u> </u>					
	Root Cause	POWERGRID is to	o check the tower for	oting resistance of	all towers in the	ne lightning prone	areas. If the resi	stance goes above 10 Oh	ım , proper earth	ing to be do	one by POV	VERGRID	by 1. Coun	nterpoise e	arthing 2. E	Direct earthing	of shield v	vire to ground if r	necessary 3	. Install To	ver	
-	Remedial Measures	Lightning Arrester	s.				Loktak	Over current	Not applicable	Yes	No							-	<u> </u>			
125	132 kV Loktak - Imphal (PG)	POWERGRID	NHPC & POWERGRID	12-Aug-16	11:06	8/12/2016 11:06	Imphal (PG)	DP, ZIII,B-E, 117 Kms.	Not applicable	No	No	-	-	-	-	12-Aug-16	11:22	8/12/2016 11:22	0:16	No SPS	-	
	Root Cause	Due to vegetation	fault(concluded from	DR).	ı		ı		1	1				1			·		1	1		
	Remedial Measures	Vegetation clearan	ace to be done by PO'	WERGRID & MS	SPCL and status	to be reported.																
126	132 kV Dimapur -	POWERGRID	POWERGRID	12-Aug-16	12:08	8/12/2016 12:08	Dimapur	DP, ZI, B-E, 85.73 Kms.	Not Furnished	No	No					12-Aug-16	13:40	8/12/2016 13:40	1:32	No SPS		
-	Imphal						Imphal	DP, ZI, B-E, 93.03 Kms.	Not Furnished	No	No					3.7						
	Root Cause		ilure caused by light				the state of	alara a 1 d a a 11	wencer -	Mille o	Nine C		de est		-11.	Landa W. C.				10.0		
	Remedial Measures	Proper maintenance earthing to be done	e is to be done by PC by POWERGRID b	OWERGRID .Porc by 1. Counterpoise	celein insulator earthing 2. Di	will replaced soor ect earthing of shi	n by polymer ins ield wire to grou	ulator as informed by PC nd if necessary 3. Install	WERGRID.PO Tower Lightning	WERGRID g Arresters.	is to check	the tower	Iooting res	astance of	all towers i	in the lightning	g prone are	as. If the resistance	ce goes ab	ove 10 Ohm	, proper	
127	132 kV Dimapur - Imphal	POWERGRID	POWERGRID	13-Aug-16	11:02	8/13/2016 11:02	Dimapur	No tripping DP, ZI, B-E, 77.4	Not Furnished	No	No	-	-	-	-	13-Aug-16	18:24	8/13/2016 18:24	7:22	No SPS	-	
		D	Dan 17 "	-1	I- 210		Imphal	DP, ZI, B-E, 77.4 Kms.	Not Furnished	No	No											
	Root Cause		ilure caused by lights			will makes 3	a by nobw !	ulator as informed by PC	WEDGDIN NO.	WEDCOM	ie to at- '	the to	footing -	lietono *	all tour "	in the linker!	a proper -	ge If the wal-	ne en~ -1	we 10.04	pros-	
	Remedial Measures	earthing to be done	e by POWERGRID b	y 1. Counterpoise	earthing 2. Di	ect earthing of shi	ield wire to grou	nd if necessary 3. Install	Tower Lightning	g Arresters.		are tower	.ooung res	ssance of	towers i	use ngfitnin	_b prone are	ii ine resistani	co goes abi	ve to Ohn	, proper	<u> </u>
128	132 kV Dimapur - Imphal	POWERGRID	POWERGRID	14-Aug-16	7:00	8/14/2016 7:00	Dimapur	DP, ZI, B-E, 94.6 Kms. DP, ZI, B-E, 77.42	Not Furnished	No	No	-	-	-	-	15-Aug-16	14:46	8/15/2016 14:46	7:46	No SPS	-	
	Root Cause	Due to insulator fo	ilure caused by lights	ning at Location N	io. 210		Imphal	Kms.	Not Furnished	No	No				J.		<u> </u>]	<u> </u>		
		Proper maintenanc	e is to be done by PC	OWERGRID .Porc	celein insulator	will replaced soor	n by polymer ins	ulator as informed by PC	OWERGRID.PO	WERGRID	is to check	the tower	footing res	sistance of	all towers i	in the lightnin	g prone are	as. If the resistance	ce goes ab	ove 10 Ohm	, proper	
	Remedial Measures	earthing to be done	e by POWERGRID b	y 1. Counterpoise	earthing 2. Di	ect earthing of shi	ield wire to grou	nd if necessary 3. Install	Tower Lightning	g Arresters.							1		1	1		
129	132 kV Jiribam - Aizwal	POWERGRID	POWERGRID	14-Aug-16	18:41	8/14/2016 18:41	Jiribam	Backup Earth Fault Backup Earth Fault	Not applicable	No No	No No	-	-	-	-	14-Aug-16	19:01	8/14/2016 19:01	0:20	No SPS	-	
	Root Cause	Due to R-N vocat-	ation fault (concluded	from DP) in the	line as both a	relays operator	AizaWl	Dackup Earth Fault	Not applicable	NO	INO						<u> </u>					
	Root Cause Remedial Measures		ition fault (concluded																			
-	Remediai Measures	· egetation clearan	cc to be done by PO	LENGRID and St	as to be repor	wet.	Jiribam	DP, ZI, R-Y-B-E,	Not Furnished	No	No						1					
			POWERGRID	14-Aug-16	23:18	8/14/2016 23:18	- modili	11.18 Kms. DP, ZII, R-Y-B-E,	umisted			-	-	-		14-Aug-16	23:35	8/14/2016 23:35	0:17	No SPS		ı

	Root Cause	Downstream fault	cleared at Haflong(P	PG).																			
	Remedial Measures	Downstream relay	settings to be submit	tted to POWERGI	RID by AEGCI	_																	
H	132 kV Haflong(PG) -		March Marc																				
132	Jiribam	POWERGRID	POWERGRID	15-Aug-16	2:10	8/15/2016 2:10	Jiribam	DP, ZI, R-E, 34.33	Not Furnished	No	No	-	-	-	-	15-Aug-16	2:46	8/15/2016 2:46	0:36	No SPS	-		
	Root Cause	Due to R-N lightni	ing fault (concluded l	by checking DR o	output,Ir lags Vr	by 71 Degrees)											_						
	Remedial Measures	POWERGRID is to	o check the tower for	oting resistance of	f all towers in the	ne lightning prone	areas. If the resi	stance goes above 10 Ol	nm , proper earth	ing to be do	ne by POV	VERGRID	by 1. Coun	terpoise e	arthing 2. E	Pirect earthing	of shield v	wire to ground if n	ecessary 3.	Install To	wer		
\vdash		Lightning Arrester				1	Dimoner		Not Furnished	No	No							1	l	l			
133	132 kV Dimapur - Doyang II	POWERGRID		15-Aug-16	4:55	8/15/2016 4:55		DP, ZI, R-E, 19.6				-	-	-	-	15-Aug-16	5:18	8/15/2016 5:18	0:23	No SPS	-		
	Root Cause	Due to B-N lightni	ing fault (concluded l	by checking DR or	output,Ib lags V	b by 75 Degrees)	1	KIIIS.	1									1	·	·	1		
		POWERGRID is to	to check the tower for				areas. If the resi	stance goes above 10 Ol	nm, proper earth	ing to be do	ne by POV	VERGRID	by 1. Coun	terpoise e	arthing 2. E	Pirect earthing	of shield v	wire to ground if n	ecessary 3.	Install To	wer		
	Remedial Measures	Lightning Arrester		1		1	1											l	1	1			
134	132 kV Silchar - Panchgram	POWERGRID & AEGCL		15-Aug-16	21:15	8/15/2016 21:15						-	-	-	-	15-Aug-16	21:28	8/15/2016 21:28	0:13	No SPS	-		
	Root Cause	Due to Mal operati	ion of relay at panchs	gram.		1	1									1		1					
	Remedial Measures	SLDC, AEGCL to	furnish the relay ind	ication of Panchoo	gram end. Relse	settings at Panche	gram to be revies	wed.															
\vdash		,	cay aid	7 unclig	accusy	J 1 mar. 112												I	1	1			
135	132 kV Silchar-P K Bari I	POWERGRID		15-Aug-16	21:40	8/15/2016 21:40		Kms.				-	-	-	-	15-Aug-16	22:02	8/15/2016 22:02	0:22	No SPS			
			John				PK Bari		Not Furnished	No	No												
	Root Cause	Due to Y-N lightm	ing fault (concluded	by checking DR o	output,Iy lags V	y by 66 Degrees)																	
	Remedial Measures	POWERGRID is to Lightning Arrester	o check the tower for s.	oting resistance of	f all towers in the	ne lightning prone	areas. If the resi	stance goes above 10 Ol	nm , proper earth	ing to be do	ne by POV	VERGRID	by 1. Coun	terpoise e	arthing 2. E	Pirect earthing	of shield v	wire to ground if n	ecessary 3.	Install To	wer		
	132 kV Lumshnong -	MePTCL &					Lumshnong		Not Furnished	No	No												
136	132 kV Lumshnong - Panchgram	AEGCL	AEGCL &	15-Aug-16	22:15	8/15/2016 22:15	Panchgram		Not Furnished	No	No	-	-	-	-	15-Aug-16	23:12	8/15/2016 23:12	0:57	No SPS	-		
	Root Cause	Due to vegetation	fault in the line as bo	oth end relays oper	rated in Zone I.	<u>. </u>		1								-		<u>. </u>			•		
	Remedial Measures	Vegetation clearan	ce to be done by Mel	PTCL & AEGCL	and status to be	e reported.																	
127	132 kV Khliehriat (PG) -	M. DECT		16 * **	6.11	0/12/2017 0 1 ·	Khliehriat (PG		Not Furnished	No	No					16 4 11	1.01	0/12/2017 - 2 :	1.10	No one			
137	Khliehriat (ME) II	MePTCL		16-Aug-16	0:11	6/16/2016 0:11	Khliehriat(ME		Not Furnished	No	No	-	-	-	-	16-Aug-16	1:24	8/16/2016 1:24	1:13	No SPS	-		
	Root Cause	To be discussed in	the next PCC meeting	ng.																			
	Remedial Measures	33 kV yard earthin furnished by MeP1	ig yet to get complete	ed as informed by furnish DR outpu	MePTCL.Span at of Khliehriat(e Numerical relay PG).	will be installed	in 132 kV Khliehriat - N	NEIGRIHMS line	before 21s	t Septembe	er'16 as inf	ormed. Eart	thing statu	s to be info	rmed, Tower	footing res	istance to be meas	ured and p	atrolling re	port to be		
120	132 kV Loktak -		NHPC &				Loktak		Not applicable	No	No					16.Auc 16	16.09	8/16/2016 10:07	0.10	No one			
138	Jiribam(PG)	POWERGRID		- o-raug-16	23.3/	2010 15:57	Jiribam(PG)	DP, ZII, B-E, 57 Kms.	Not applicable	Yes	No	_	-		-	, tug-16	. 0.0/		J.10	. o ars			
	Root Cause	Due to B-N vegeta	tion fault (concluded	i from DR,Ib lags	Vb by 25 degree	ees) in the line.				_	_	_	_		_				_	_			
	Remedial Measures	Vegetation clearan	ice to be done by PO	WERGRID and st	tatus to be repo	rted.		Inc -									_		_	_]		L
139	132 kV Dimapur - Imphal	POWERGRID	POWERGRID	18-Aug-16	11:17	8/18/2016 11:17		Kms.					-			18-Aug-16	11:26	8/18/2016 11:26	0:09	No SPS	.		
		Due to P **	tion fault		onched- 2 *	DR To Le *		Kms.	Not Furnished	Yes	No								<u> </u>	<u> </u>	L .		
	Root Cause						uegrees) in the	-deno-															
	Remedial Measures	vegetation clearan	sce to be done by PO	WERGRID and st	tatus to be repo	ned.	p.e	DP, ZI, R-Y-F 24 90	No. 2	**	**							l	ı —	ı —			
140	132 kV Haflong(PG) - Jiribam	POWERGRID	POWERGRID	21-Aug-16	13:21	8/21/2016 13:21		Kms.				-	-		-	21-Aug-16	13:33	8/21/2016 13:33	0:12	No SPS	-		
	Root Cause	Due to V-N	tion fault com	to R-Y-N for-1.	oncluded 6	DR) in the 1:	Justam	Kms.	a umished	1 08	140							<u>I</u>	<u> </u>	<u> </u>	L		
	Root Cause Remedial Measures																						
			1	and s	se repo		Loktak		Not Furnished	No	No		I						1	1			
141	132 kV Loktak - Imphal (PG)	POWERGRID	NHPC & POWERGRID	22-Aug-16	12:49	8/22/2016 12:49		DP, ZI, B-E, 35.76	Successful			-	-	-	-	22-Aug-16	12:55	8/22/2016 12:55	0:06	No SPS	-		
	Root Cause	Likely due to R-Y-	·B-N lightning fault i	in the line.	•										_						•		
	Remedial Measures	PLCC link at Lokt	tak to be checked.AR	t scheme at Loktal	k and Jiribam to	be reviewed.POV	WERGRID is to	check the tower footing	resistance of all t	owers in th	e lightning	prone area	s. If the res	istance go	es above 10	Ohm , prope	r earthing	to be done by POV	WERGRID	by 1. Cou	nterpoise		
H	132 kV Badarpur -							SPS-3 operated	Not applicable	No	No					4-	_	ar-					
142	132 kV Badarpur - Panchgram	POWERGRID		23-Aug-16	14:21	8/23/2016 14:21	Panchgram	No tripping	Not applicable	No	No	L -	L -	-	-	23-Aug-16	14:30	8/23/2016 14:30	0:09	No SPS	<u> </u>		
	Root Cause	SPS mal-operated.				_	_		_									_				_	
	Remedial Measures	Reason for SPS sig	gnal at Badarpur to b	e investigated by l	POWERGRID	& AEGCL.																	
, 40	132 kV Dimapur -	ABOOT		24 4	10.40	8/24/2017	Dimapur		Not applicable	No	No					24. 4	10.4-	8/24/201	0.00	N- ^-			
143	Bokajan	AEGCL		24-Aug-16	10:16	o:24/2016 10:16	Bokajan		Not applicable	No	No	<u> </u>	-		_	24-Aug-16	10:38	or.24/2016 10:38	0:22	NO SPS			L
	Root Cause	Due to vegetation	fault in the line.																				L
	Remedial Measures	Vegetation clearan	ice to be done by AB	GCL and status to	be reported.																		L
144	132 kV Jiribam - Aizwal	POWERGRID	POWERGRID	25-Aug-16	16:02	8/25/2016 16-02	Jiribam	Kms.	Not Furnished	Yes	No	-		-	_	25-Aug-16	16:13	8/25/2016 16:12	0:11	No SPS			-
					1		Aizawl	DP, ZI, Y-E, 114 Kms	Not Furnished	No	No					2.0			<u> </u>				
	Root Cause				CD/TP.	hant d	utie -	fall	ina -	16 14	· · ·	uher:	he-		to b	hu no-	on.	Zour-	du - 1	und :	of 1.		
	Remedial Measures	AK scheme at Aiz wire to ground if n	wat and Jiribam to be secessary 3. Install To	e reviewed.POWE ower Lightning Ar	EKGRID is to comesters.	neck the tower for	1					nove 10 O	nm , proper	r earthing	to be done l	y POWERG	ciD by 1. 0	ounterpoise earth	ung 2. Dire	ct earthing	of shield		
145	132 kV Badarpur - Kumarghat	POWERGRID	POWERGRID	25-Aug-16	17:14	8/25/2016 17:14		Kms.	1			-	-	-	-	25-Aug-16	17:32	8/25/2016 17:32	0:18	No SPS	.		
							Kumarghat		Not Furnished	Yes	No												
	Root Cause				DOWERCEN	a to also share	or forti-	anno of all	liohtni	man Te -	mode*-	anar -1	10 CL	neor	thing ** *	dono b no	EDCn	w.1 C	nome.	. Di	ethic - · ^		
	Remedial Measures	shield wire to grou	larpur and Kumargha and if necessary 3. Ins	a to ne reviewed.l stall Tower Lighti	ning Arresters.	s to eneck the tow	ı	DP, ZI, Y-E, 60.83				goes above	10 Onm , p	proper ean	uing to be	none by POW	EKUKID	y 1. Counterpoise	earthing 2	. Direct ea	aming of		
146	132 kV Aizwal - Kumarghat	POWERGRID	POWERGRID	25-Aug-16	17:14	8/25/2016 17:14	Aizawl Kumarghat	DP, ZI, Y-E, 60.83 Kms. DP, ZI, R-Y-B	Not Furnished Not Furnished	No No	No No	-	-	-	-	25-Aug-16	17:32	8/25/2016 17:32	0:18	No SPS	-		
\vdash		ļ		<u> </u>	1	l	Kumarghat	Dr, ZI, K-Y-B	vox rumished	NO	NO						l	l	<u> </u>	İ	<u> </u>		<u> </u>

1 1	Permedial Measures	AR scheme at Jiriba	am and Aizwal to be	reviewed.POWE	RGRID is to c	heck the tower foo	ting resistance of	all towers in the lightni	ing prone areas. I	f the resistar	nce goes a	bove 10 Ol	hm , proper	earthing t	o be done l	by POWERGE	RID by 1. C	Counterpoise earthi	ing 2. Direct	earthing	of shield		
\vdash	Remedial Measures	wire to ground if ne	ecessary 3. Install To	wer Lightning Ar	resters.		1	DP, ZI, R-E, 58.7	ı				- · ·						1				
148	132 kV Jiribam - Aizwal	POWERGRID	POWERGRID	25-Aug-16	21:21	8/25/2016 21:21	Jiribam Aizawl	Kms. DP, ZI, R-E, 114 Kms.	Not Furnished Not Furnished	Yes	No No	-	-	-	-	25-Aug-16	21:34	8/25/2016 21:34	0:13	No SPS	-		
	Root Cause	Likely due to D-N 1	ightning fault(concl	uded from DR com	tput.Ir lace V=1	by 70 decrees) in s		,											1				
		AR scheme at Jiriba	am and Aizwal to be	reviewed.POWE	RGRID is to c			all towers in the lightni	ing prone areas. I	f the resista	nce goes a	bove 10 Ol	hm , proper	earthing t	o be done l	by POWERGE	RID by 1. C	Counterpoise earthi	ing 2. Direct	earthine	of shield		_
	Remedial Measures	wire to ground if ne	ecessary 3. Install To	wer Lightning Ar	resters.	1	1	DP, ZI, B-E, 8.017	1	· ·				_									
149	132 kV AGTPP - Agartala I	POWERGRID	NEEPCO & TSECL	25-Aug-16	1:46	8/25/2016 1:46	AGTPP	Kms.	Not applicable	No	No				-	25-Aug-16	13:14	8/25/2016 13:14	11:28	No SPS	-		
	_						Agartala	Earth Fault	Not applicable	No	No												
	Root Cause	Fault in the line. Ro	oot cause could not b	e concluded due t	to unavailabilit	y of DR outputs.																	
	Remedial Measures	DR of AGTPP end	for this event to be s	submitted by NEE	PCO.																		
150	132 kV Jiribam - Aizwal	POWERGRID	POWERGRID	25-Aug-16	10:26	8/25/2016 10:26	Jiribam	DP, ZII, Y-E, 14.77 Kms.	Not applicable	Yes	No					25-Aug-16	10:43	8/25/2016 10:43	0:17	No SPS			
							Aizawl	Earth Fault	Not applicable	No	No												
	Root Cause	High resistive veger	tation Y-N fault (cor	ncluded by checki	ng DR output,l	ly lags Vy by 3.6 d	egrees and fault o	current is very low -800	Amps.), in the l	ine as both e	end protec	tive relays	operated.										
	Remedial Measures	Resistive reach of I	OPR to be reviewed	by POWERGRID	. Vegetation cl	earance to be done	by POWERGRI	D and status to be repor	ted.Patrolling rep	port for the	event to be	furnished.											
151	132 kV Khliehriat (PG) -	MePTCL	POWERGRID &	25-Aug-16	13:59	8/25/2016 13:59	Khliehriat (PG)	DP, ZI, R-Y-B, 26.72 Kms.	Not Furnished	No	No					25-Aug-16	14:36	8/25/2016 14:36	0:37	No SPS			
	Khliehriat (ME) II	-	MePTCL				Khliehriat(ME)	No tripping	Not Furnished	No	No					,							
	Root Cause	To be discussed in	the next PCC meetin	ıg.																			
	Remedial Measures	33 kV yard earthing furnished by MePT	yet to get complete CLPOWERGID to	d as informed by l furnish DR output	MePTCL.Spare t of Khliehriat(e Numerical relay (PG).	will be installed i	n 132 kV Khliehriat - N	EIGRIHMS line	before 21st	Septembe	er'16 as info	ormed. Earti	ning status	s to be info	rmed, Tower 1	ooting resi	istance to be meas	ared and pat	rolling re	port to be		
	132 kV Dimapur -						Dimapur	DP, ZI, R-B-E, 50.39 Kms.	Not Furnished	Yes	No												
152	Imphal	POWERGRID	POWERGRID	25-Aug-16	14:55	8/25/2016 14:55	Imphal	DP, ZI, R-B-E, 122.8 Kms.	Not Furnished	Yes	No	-	-	-	-	25-Aug-16	15:21	8/25/2016 15:21	0:26	No SPS	-		
	Root Cause	Likely due to R-B-1	N lightning fault(con	cluded from DR	output) in the li	ine.			•														
	Remedial Measures	AR scheme at Dima	apur and Imphal to b	ne reviewed.POW	ERGRID is to	check the tower fo	oting resistance of	of all towers in the light	ning prone areas.	If the resist	ance goes	above 10 C	Ohm , prope	r earthing	to be done	by POWERG	RID by 1.	Counterpoise eartl	ning 2. Direc	t earthin	g of		_
			nd if necessary 3. Ins	10wer Lightn	arresters.		Silchar	DP, ZI, B-E, 58.14 Kms.	Not Furnished	No	No								T				_
153	132 kV Silchar - Imphal (PG) II	POWERGRID	POWERGRID	25-Aug-16	15:19	8/25/2016 15:19	Imphal (PG)	Mms. DP, ZI, B-E, 93.81 Kms.	Not Furnished	Yes	No	-	-	-	-	25-Aug-16	15:30	8/25/2016 15:30	0:11	No SPS	-		
	Root Cause	Likely due to R-B-?	N lightning fault(con	scluded from DR	output,Ib lags V	Vb by 76 degrees)	in the line.	******	1				<u> </u>			1			1				_
	Remedial Measures	AR scheme at Silch	ar and Imphal to be	reviewed.POWEI	RGRID is to ch	neck the tower foot	ing resistance of	all towers in the lightni	ng prone areas. It	the resistan	ice goes al	ove 10 Oh	m , proper e	earthing to	be done b	y POWERGR	ID by 1. C	ounterpoise earthi	ng 2. Direct	earthing	of shield		
			ecessary 3. Install To	wer Lightning Ar	resters.		Loktak	DP, ZII, B-E, 72.5	Not Furnished	No	No								1				
154	132 kV Loktak - Jiribam(PG)	POWERGRID	NHPC & POWERGRID	25-Aug-16	15:43	8/25/2016 15:43	Jiribam(PG)	Kms. DP, ZI, B-E, 11.94 Kms.	Successful operation	Yes	No	-	-	-	-	25-Aug-16	15:57	8/25/2016 15:57	0:14	No SPS	-		
	Root Cause	Fault in the line.Ro	ot cause could not be	e concluded due to	o unavailability	of DR outputs.		**					L						1				_
	Remedial Measures	PLCC link at Lokta	k to be checked.AR	scheme at Loktak	and Jiribam to	be reviewed.																	
	132 kV Silchar -	POWERGRID &	nower or -				Silchar	DP, ZIII, R-Y-E, 52.57 Kms.	Not applicable	No	No												
155	132 kV Silchar - Panchgram	POWERGRID & AEGCL	POWERGRID & AEGCL	25-Aug-16	16:47	8/25/2016 16:47	Panchgram	Over current	Not applicable	No	No	-	-	-	-	25-Aug-16	17:10	8/25/2016 17:10	0:23	No SPS	-		
	Root Cause	Due to Mal operation	on of relay at panchg	gram.		1			1										1				_
	Remedial Measures	SLDC, AFGCT to	furnish the relay indi	ication of Panchon	ram end Polo-	settings at Danoba	ram to be review	ed.															_
		,	use retay that	or a micigi	Acidy	go as Fancing		DP, ZIII, B-E, 49.28	L	,. I		,	1						1				
156	132 kV Silchar - Panchgram	POWERGRID & AEGCL	POWERGRID & AEGCL	27-Aug-16	4:38	8/27/2016 4:38	Silchar	Kms.	Not applicable	No	No	-	-	-	-	27-Aug-16	5:08	8/27/2016 5:08	0:30	No SPS	-		
		D					Panchgram	Earth Fault	Not applicable	No	No												
	Root Cause	Due to Mal operation	on of relay at panchg	gram.																			
	Remedial Measures	SLDC, AEGCL to 1	furnish the relay indi	ication of Panchgr	ram end. Relay	settings at Panchg	ram to be review	ed.															
157	132 kV Silchar-P K Bari	POWERGRID	POWERGRID &	27-Aug-16	5:16	8/27/2016 5:16	Silchar	DP, ZI, B-E, 88.12 Kms.	Not Furnished	Yes	No		_	_		27-Aug-16	5:47	8/27/2016 5:47	0:31	No SPS	-		
	П		TSECL				PK Bari	Master trip relay operated	Not Furnished	No	No												
	Root Cause	Fault in the line due	e to bad weather con	dition.																			
	Remedial Measures	POWERGRID to fu	arnish DR output of	the event.																			
	132 kV Badarpur -				_		Badarpur	DP, ZI, Y-E, 24.65 Kms.	Not applicable	No	No												_
158	Kumarghat	POWERGRID	POWERGRID	27-Aug-16	5:33	8/27/2016 5:33	Kumarghat	DP, ZI, Y-E, 104.2 Kms.	Not applicable	No	No	-	-	-	-	27-Aug-16	5:54	8/27/2016 5:54	0:21	No SPS	-		
	Root Cause	Due to Y-N vegetat	tion fault as conclude	ed from DR(due to	o bad weather	condition).																	
	Remedial Measures	Vegetation clearance	ce to be done by POV	WERGRID and st	atus to be repo	rted.Patrolling rep	ort for the event t	o be furnished.															
							Silchar	DP, ZI, B-E, 67 Kms.	Not Furnished	Yes	No								T			-	
159	132 kV Silchar-P K Bari II	POWERGRID	POWERGRID & TSECL	27-Aug-16	21:13	8/27/2016 21:13	PK Bari	Master trip relay	Not Furnished	No	No	-	-	-	-	27-Aug-16	21:34	8/27/2016 21:34	0:21	No SPS	-		
	Root Cause	Likely due to B-N l	ightning fault(concl	uded from DR out	tput,lb lags Vb	by 79 degrees) in		operated	1														
	Remedial Measures	AR scheme at Silch	sar and P K Bari to b	e reviewed.POWI	ERGRID is to			of all towers in the lightr	ning prone areas.	If the resist:	ance goes	above 10 C	Ohm , prope	r earthing	to be done	by POWERG	RID by 1.	Counterpoise earth	ning 2. Direc	t earthin	of		_
			nd if necessary 3. Ins	tall Tower Lightn	ing Arresters.		Khliehriat (PG)	DP, ZI, R-Y-B, 11	Not Furnished	No	No								T				
160	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	POWERGRID & MePTCL	28-Aug-16	1:41	8/28/2016 1:41	Khliehriat (PG) Khliehriat(ME)	Kms. No tripping	Not Furnished	No No	No No	-	-	-	-	28-Aug-16	1:51	8/28/2016 1:51	0:10	No SPS	-		
		The base of the state of the st	de anna DOO			j	(ME)	upping	. vs. runnsned	140	.10												
	Root Cause		the next PCC meetin		MaDTOL 2	o Numi	mill be to a married	* 123 PA WEE * * * * * * * * * * * * * * * * * *	EIGDAD40	hafe **	Carre .	w16 ' -		sina	to Fr. 1.C	emad Tr	Sonti	istance b	and	roll'-	and		
	Remedial Measures	furnished by MePT	g yet to get complete CL.POWERGID to	u as informed by l furnish DR output	vier i CL.Span t of Khliehriat(PG).	wan be installed i	n 132 kV Khliehriat - N	SEJORIHMS line	oerore 21st	Septembe	10 as info	nmed. Eartl	nng statu	s to be info	unea, Tower l	ooung resi	ssance to be meas	meu and pat	ioning re	pon to be		
161	132 kV Haflong(PG) - Jiribam	POWERGRID	POWERGRID	28-Aug-16	12:06	8/28/2016 12:06	Haflong(PG)	DP, ZI, Y-E, 73.62 Kms.	Not Furnished	Yes	No	-	-	-	-	28-Aug-16	12:30	8/28/2016 12:30	0:24	No SPS	-		
							Jiribam	DP, ZII, Y-E, 87.23 Kms.	Not Furnished	Yes	No												
	Root Cause		lightning fault(concl																				
	Remedial Measures	AR scheme at Hafle wire to ground if ne	ong and Jiribam to b ecessary 3. Install To	e reviewed.POWI wer Lightning Ar	ERGRID to che resters.	eck the tower footi	ng resistance of a	all towers in the lightnin	ig prone areas. If	the resistan	ce goes ab	ove 10 Oh	n , proper e	arthing to	be done by	POWERGRI	D by 1. Co	ounterpoise earthin	g 2. Direct o	earthing o	f shield		
162	132 kV Khliehriat (PG) -	MePTCL	POWERGRID &	29-Aug-16	14:29	8/29/2016 14:29	Khliehriat (PG)	DP, ZI, R-Y-B-E, 80.69 Kms.	Not Furnished	No	No					29-Aug-16	14:48	8/29/2016 14:48	0:19	No SPS			-
	Khliehriat (ME) II		MePTCL				Khliehriat(ME)	No tripping	Not Furnished	No	No												

	Remedial Measures	POWERGRID to	furnish more details for	or further analysis.	-																	
164	132 kV Biswanath Charali-Pavoi I	POWERGRID	POWERGRID & AEGCL	30-Aug-16	18:21	8/30/2016 18:21	Biswanath Charali	DP, ZI, R-E, 2.8 Kms. DP, ZI, R-E, 7.719		Yes	No			-		30-Aug-16	18:48	8/30/2016 18:48	0:27	No SPS		
	Chamil-1 avor 1		ALGEL				Pavoi	Kms.	Not Furnished	No	No											
	Root Cause	Due to fault in the	to fault in the line Root cause could not be concluded due to unavailability of DR outputs.																			
	Remedial Measures	POWERGRID to	OWERGRID to furnish DR of BNC end for further analysis.																			
							Jiribam	DP, ZI, R-Y-B-E, 34.78 Kms.	Not Furnished	Yes	No											
165	132 kV Jiribam - Aizwal	POWERGRID	POWERGRID	31-Aug-16	0:01	8/31/2016 0:01	Aizawl	DP, ZI, R-Y-B-E, 132.9 Kms.	Not Furnished	No	No	-	-	-	-	31-Aug-16	0:19	8/31/2016 0:19	0:18	No SPS	-	
	Root Cause	Likely due to R-Y	kely due to R-Y-N lightning fault(concluded from DR output) in the line.																			
		AR scheme at Aizwal and Jiribam to be reviewed POWERGRID to check the tower footing resistance of all towers in the lightning prone areas. If the resistance goes above 10 Ohm, proper earthing to be done by POWERGRID by 1. Counterpoise earthing 2. Direct earthing of shield nive to ground if necessary 3. Install Tower Lightning Arresters.																				
166	132 kV AGTPP -	POWERGRID	NEEPCO &	31-Aug-16	8:01	8/31/2016 8:01	AGTPP	No tripping	Not Furnished	No	No					31-Aug-16	14:46	8/31/2016 14:46	6:45	No SPS		
100	Agartala II	FOWERORID	TSECL	31-Aug-10	8.01	8/31/2010 8.01	Agartala	Not Furnished	Not Furnished	No	No	,				31-Aug-10	14.40	8/31/2010 14:40	0.43	NOSES	,	
	Root Cause	Root cause could	oot cause could not be concluded due to unavailability of DR outputs as well as proper relay indications.																			
	Remedial Measures	POWERGRID to	furnish patrolling repo	ort for further anal	ysis.Relay ind	lications to be furn	ished by NEEPC	O & SLDC,TSECL.														
	132 kV AGTPP -	POWERGRID	NEEPCO &		23:44	0.04.004 / 00.44	AGTPP	DP, ZI, Y-B-E, 2.124 Kms.	Not Furnished	No	No							9/1/2016 11:50		N. one		
167	Agartala II	POWERGRID	TSECL	31-Aug-16	23:44	8/31/2016 23:44	Agartala	Not Furnished	Not Furnished	No	No	-	-	•	-	1-Sep-16	11:50	9/1/2016 11:50	12:06	No SPS		
	Root Cause	Y-phase jumper failed at Loc No. 15.																				
	Remedial Measures	Proper maintenance	e and jumper tightnin	ng to be done by P	OWERGRID.																	

क्रम सं./ Sl. No.	द्विपिंग तत्वका नाम / Name of tripping element	मातिक / Owner	डाटा प्रदान करना है / Data to be furnished by	सी.आर. ऑपरेटर के द्वारा प्रदान की गई घटना के तारिख / Date of Event provided by CR operator	सी.आर. ऑपरेटर के दुवारा प्रदान की गई घटना का समय/ Time of Event provided by CR operator	सी.आर. ऑपरेटर के दुवारा प्रदान की गई घटना के तारिख और समय / Date & Time of Event provided by CR operator	নীর কা নাম / Name of Node	सी.आर.ऑपरेटर के दुवारा प्रदान की गई रिसे सेकंत / Relay indications proded by CR operator	ऑटो रीक्लोजर का ऑपरेशन / Operation of Auto Reclose	24 घंटे के श्रीतर डी.आर. पेश किया (हां / नहीं) / DR output furnishe d within 24 hours (Y/N)	24 घंटे के श्रीतर ई.एल. पेश किया (हां / नहीं) / EL output furnishe d within 24 hours (Y/N)	ਕੀਤ की हानि (ਸੇगावाट ਸੋਂ) / Effect (Loss of Load in MW)	जनरेशन की हानि (मेगावाट में) / Effect (Loss of Generati on in MW)	सोड और जनरेशन की हानि (मेगावाट में) / Effect (Loss of Load & Generati on in	सी.ई.ए चिड मापदंड के अनुसार कौन सा श्रेणी Category as per CEA Grid Standar ds	सी.आर ऑपरेटर के द्वारा प्रदान की गई रेस्टोरेशन का दिनांक / Date of restoration provided by CR operator	सी.आर ऑपरेटर के द्वारा प्रदान की गई रेस्टॉरेशन की समय / Time of restorati on provided by CR operator	सी आर ऑपरेटर के द्वारा प्रदान की गई दिनांक और स्टरोरेशन की समय / Date and time of restoration provided by CR operator	आउटेज की अवधि / Outage duration	एस.पी.ए स संचालन के विवरण Details of SPS Operatio n	एमयु में कमी/ Loss in MU	Remarks
5	132 kV Rangia - Motonga	BPC	AEGCL & BPC	6-Jul-16	11:46	7/6/2016 11:46	Rangia	Over current	Not applicable	No	No	-			-	6-Jul-16	12:32	7/6/2016 12:32	0:46	No SPS		
	-						Motonga Rangia	No tripping Over current	Not applicable Not applicable	No No	No No											
6	132 kV Rangia - Motonga	BPC	AEGCL & BPC	6-Jul-16	13:23	7/6/2016 13:23	Motonga	No tripping	Not applicable	No	No	-	-	-	-	6-Jul-16	15:17	7/6/2016 15:17	1:54	No SPS	-	
	Root Cause	Matter referred to	next PCC meeting.																			
	Remedial Measures	to be finalized after next PCC meeting Ranoia Over current Not applicable No. No.																				
7	132 kV Rangia - Motonga	BPC	AEGCL & BPC	8-Jul-16	17:04	7/8/2016 17:04	Rangia Motonga	Over current No tripping	Not applicable Not applicable	No No	No No	-	-	-	-	8-Jul-16	17:54	7/8/2016 17:54	0:50	No SPS	-	
	Root Cause	Matter referred to	next PCC meeting.							1	1		1	1			1					
	Remedial Measures	To be finalized aft	er next PCC meeting	3																		
	132 kV Rangia -	nno	APOOT A	45.5	***	MILE POLICY TO	Rangia	No tripping	Not Furnished	No	No						15.00	7/15/2016 15:42	,	N. 0		
11	Motonga	BPC	AEGCL & BPC	15-Jul-16	13:50	7/15/2016 13:50	Motonga	Not Furnished	Not Furnished	No	No]			-	15-Jul-16	15:42	//15/2016 15:42	1:52	No SPS	·	
	Root Cause	Matter referred to	next PCC meeting.																			
	Remedial Measures	To be finalized aft	er next PCC meeting	3																		
17	400 kV Bongaigaon - New Siliguri I	POWERGRID	POWERGRID	11-Aug-16	12:44	8/11/2016 12:44	Bongaigaon New Siliguri	DP, ZI, B-E, 24.15 Kms.	Not Furnished Not Furnished	Yes No	No No	-	-	-	-	11-Aug-16	21:19	8/11/2016 21:19	8:35	No SPS	-	
	Root Cause	Permanent fault w	ith high current and l	high angle.Root ca	ause could not b	e concluded.																
	Remedial Measures	temedial measures after concluding root cause. Surjamaninagar Not Furnished Not Furnished No																				
21	132 kV Surjamaninagar- Comilla I	POWERGRID & PGCB	POWERGRID & PGCB	16-Aug-16	16:52	8/16/2016 16:52	Surjamaninagar Comilla	Not Furnished	Not Furnished Not Furnished	No No	No No	-	-	-	-	16-Aug-16	17:19	8/16/2016 17:19	0:27	No SPS	-	
	Root Cause	Fault in the Bangla	tult in the Bangladesh section of the line.																			
	Remedial Measures	Referred to PCCM																				
71	220 kV Birpara - Salakati II	POWERGRID	POWERGRID	25-Aug-16	5:19	8/25/2016 5:19	Birpara Salakati	No tripping DP, ZI, B-E, 109.3 Kms	Not Furnished Not Furnished	No No	No No	-	-	-	-	25-Aug-16	5:45	8/25/2016 5:45	0:26	No SPS	-	
	Root Cause																					
	Remedial Measures	POWERGRID to p	provide DR outputs of	of Salakati end for	r this event for f	urther analysis.																
76	132 kV Surjamaninagar- Comilla I	POWERGRID & PGCB	POWERGRID & PGCB	25-Aug-16	20:10	8/25/2016 20:10	Surjamaninagar Comilla	DP,No other info. Furnished	Not Furnished Not Furnished	No No	No No	-	-	-	-	25-Aug-16	20:49	8/25/2016 20:49	0:39	No SPS	-	
	Root Cause	Referred to PCCM	l.															ļ				
	Remedial Measures	POWERGRID to 1	urnish proper relay i	indication as well	as patrolling re	port.																
30	220 kV Birpara - Salakati I	POWERGRID	POWERGRID	29-Aug-16	4:27	8/29/2016 4:27	Birpara Salakati	DP, ZI, R-E DP, ZI, R-E, 121 Kms.	Successful operation Not Furnished	No No	No No	-	-		-	29-Aug-16	4:53	8/29/2016 4:53	0:26	No SPS	-	
	Root Cause	Due to fault in the	line.Root cause coul	ld not be conclude	ed due to unavai	lability of DR out	puts.	I.	1	1	1		1	1	1	1	1	i				
	Remedial Measures	POWERGRID to p	provide DR outputs of	of Salakati end for	r this event for f	urther analysis.																
33	400 kV Palatana - Silchar II	NETC	OTPC & POWERGRID	26-Jul-16	11:34	7/26/2016 11:34	Palatana Silchar	DP, ZI, R-E, 40 Kms. DP, ZI, R-E, 179.2 Kms.	Not Furnished Not Furnished	No No	No No	-	-	-	-	26-Jul-16	12:10	7/26/2016 12:10	0:36	No SPS	-	
	Root Cause	Root cause yet to f	inalize as there is no	finding after petr	olling as inform	ned by POWERGE	RID and angle is o	coming around 30 degre	e durning fault.													
	Remedial Measures	Remedial measure	after finalizing the r	oot cause.																		
44	220 kV Balipara - Sonabil	AEGCL	POWERGRID & AEGCL	22-Aug-16	13:31	8/22/2016 13:31	Balipara Sonabil	Earth Fault No tripping	Not applicable	No No	No No	-	-	-	-	22-Aug-16	14:12	8/22/2016 14:12	0:41	No SPS		
	Root Cause	Same time,220 kV	220 kV Samaguri -	Sonabil line also	tripped.Matter r	eferred to PCC.		-		•	•		•	•								
	Remedial Measures	Remedial measure	s after concluding ro	ot cause.																		
50	220 kV Mariani(PG)- Mokokchung (PG) II	POWERGRID	POWERGRID	12-Jul-16	1:11	7/12/2016 1:11	Mariani(PG) Mokokchung(P	Backup Over Current DPR, Z-I, R-Y-E, 24.51 Kms.	Not applicable Not Furnished	No No	No No	-	-	-	-			Not Yet Restored	#VALUE!	No SPS	-	Tower Collapsed
	Root Cause	Fault not involving	ground as there no	neutral current Au	ring the fault(fe	om DR).Root com	G) se could not be fi		<u> </u>	1	1	l	1	1	Ì		1					
No neutral current	Remedial Measures				-p mun(II		not be in															
		remedial measure	after finalizing the r	oot causé.			Samoonni	DP, ZI, R-Y-E,33.6	Not Euroiche	Ma	No	l										
53	220 kV Samaguri -	AFGCI	APCCI	22 Tul 16	7.75	7/22/2014 7.25	Samaguri	Kms.	Not Furnished	No	No	۱.	l .	۱ .	l	22-Iul-16	15:43	7/22/2016 15:43	R-18	No SDS		

- 33	Mariani II	ADULL	AEGCL	22-Jui-10	1:45	//22/2010 /:25	Mariani	DP, ZI, R-Y-E,36.7 Kms.	Not Furnished	No	No	-	· ·	-	-	22-Jui-10	15:45	//22/2010 13:43	0:10	NO SES		
	Root Cause	Matter referred to a	next PCC meeting.	l			1	Kiis.	l				l									
•	Remedial Measures	To be finalized after	er next PCC meeting	:																		
54	220 kV Azara - Sarusajai I	AEGCL	AEGCL	22-Jul-16	12:15	7/22/2016 12:15	Azara Sarusajai	Not Furnished R-Ph, LA burst at Sarusajai	Not applicable Not applicable	No No	No No	-	-	-	-	22-Jul-16	18:30	7/22/2016 18:30	6:15	No SPS		
	Root Cause	Matter referred to a	next PCC meeting.	ı				Эш илији														
	Remedial Measures	To be finalized after	er next PCC meeting	1																		
57	220 kV Mariani(PG)-	POWERGRID	POWERGRID	9-Aug-16	4:10	8/9/2016 4:10	Mariani(PG)	Hand Tripped	Not applicable	No	No					9-Aug-16	13:31	8/9/2016 13:31	9:21	No SPS		
	Mokokchung (PG) I	TOWLKOKED	TOWERORD	J-Lug-10	4.10	u >/2010 4:10	Mokokchung(P G)	Over Voltage	Not applicable	No	No					>-1ug-10	13.31	0) 2010 13.31	<i>7.24</i>	110 51 5		
	Root Cause	Root cause could n	ot be concluded due	to unavailability	of DR outputs.																	
	Remedial Measures	PLCC link at Mari	ani(PG) and Mokoko	chung(PG) to be c	hecked.DR to l	be submitted by P	OWERGRID.		1													
58	220 kV AGBPP - Tinsukia II	AEGCL	NEEPCO & AEGCL	10-Aug-16	15:00	8/10/2016 15:00	AGBPP	DP, ZII, R-Y-B	Not applicable Not applicable	No No	No No	-	-	-	-	10-Aug-16	15:28	8/10/2016 15:28	0:28	No SPS	-	
	Root Cause	Matter referred to a	next PCC meeting.	•	•																	
•	Remedial Measures	To be finalized in a	next PCC meeting																			
60	220 kV Mariani(PG)- Mokokchung (PG) I	POWERGRID	POWERGRID	14-Aug-16	15:25	8/14/2016 15:25	Mariani(PG) Mokokehung(P	Over Voltage Direct Trip received	Not applicable Not applicable	No No	No No	-	-	-	-	14-Aug-16	16:25	8/14/2016 16:25	1:00	No SPS		
	Root Cause	Root cause could n	ot be concluded due	to unavailability	of DR outputs.	There was no over		(from PMU).														
	Remedial Measures	POWERGRID to p	rovide DR outputs of	of Mariani & Mok	okchung for th	is event.																
							D-II	DP, Y-E, Dist. Not	Not Furnished	37	No		1									
61	220 kV Balipara - Sonabil	AEGCL	POWERGRID & AEGCL	15-Aug-16	12:02	8/15/2016 12:02	Balipara	furnished No tripping	Not Furnished	Yes	No	-	-	-	-	15-Aug-16	12:22	8/15/2016 12:22	0:20	No SPS	-	
	Root Cause	Due to Y-N fault s	ensed as Zone I fault	L.																		
	Remedial Measures	DPR settings at Ba	PR settings at Balipara to be reviewed by POWERGRID. Patrolling report to be submitted by AEGCL. Mariani(PG) Direct Trip received Not applicable No No No																			
64	220 kV Mariani(PG)- Mokokchung (PG) II	POWERGRID	POWERGRID	25-Aug-16	13:54	8/25/2016 13:54	Mariani(PG) Mokokchung(P G)	Direct Trip received Over Voltage	Not applicable Not applicable	No No	No No	-	-	-	-	25-Aug-16	14:44	8/25/2016 14:44	0:50	No SPS		
	Root Cause	Root cause could n	ot be concluded due	to unavailability	of DR outputs.	There was no over		(from PMU).														
•	Remedial Measures	PLCC link at Martani(PG) and Mokokchung(PG) to be checked DR to be submitted by POWERGRID.																				
65	220 kV Misa - Mariani(AS)	POWERGRID	POWERGRID & AEGCL	30-Aug-16	1:30	8/30/2016 1:30	Misa Mariani (AS)	DP, ZI, R-E, 142.6 Kms. DP, ZI, R-E, 15.71 Kms.	Not Furnished Not Furnished	No No	No No	-	-	-	-	30-Aug-16	3:04	8/30/2016 3:04	1:34	No SPS		
	Root Cause	Due to fault in the line. Root cause could not be concluded due to unavailability of DR outputs.																				
	Remedial Measures	POWERGRID to p	OWERGRID to provide DR outputs of Salakati end for this event for further analysis.																			
66	220 kV Mariani(PG)- Mokokchung (PG) I	POWERGRID	POWERGRID	30-Aug-16	3:03	8/30/2016 3:03	Mariani(PG) Mokokchung(P G)	Direct Trip received Over Voltage	Not applicable Not applicable	No No	No No	-	-	-	-	30-Aug-16	13:47	8/30/2016 13:47	10:44	No SPS	-	
	Root Cause	Root cause could n	ot be concluded due	to unavailability	of DR outputs.	There was no over	r voltage at Misa	(from PMU).														
	Remedial Measures	PLCC link at Mari	ani(PG) and Mokoko	chung(PG) to be c	hecked.DR to l	be submitted by P	OWERGRID.															
69	220/132 kV, 50 MVA ICT II at Balipara	AEGCL	POWERGRID	26-Jul-16	1:55	7/26/2016 1:55	Balipara	Tripped due to operation of Buchholtz	Not applicable	No	No	-	-	-	-	26-Jul-16	17:05	7/26/2016 17:05	15:10	No SPS	-	Restoration time- from CPCC
	Root Cause	Matter referred to a	next PCC meeting.D	ue to low oil level	as informed b	y POWERGRID.																
	Remedial Measures	To be finalized after	er next PCC meeting	: I		1	ı	DD ZE V P · · · ·	ı				1			1			-			
73	132 kV Silchar - Imphal (PG) I	POWERGRID	POWERGRID	30-Jul-16	12:39	7/30/2016 12:39	Silchar Imphal (PG)	DP, ZII, Y-E, 141.5 Kms. DP, ZI, R-Y-B-E, 15.77 Kms.	Not Furnished Not Furnished	No No	No No	-	-	-	-	30-Jul-16	18:32	7/30/2016 18:32	5:53	No SPS		
74	132 kV Silchar - Imphal (PG) II	POWERGRID	POWERGRID	30-Jul-16	12:39	7/30/2016 12:39	Silchar Imphal (PG)	DP, ZII, B-E, 192.9 Kms.	Not Furnished Not Furnished	No No	No No	-	-	-	-	30-Jul-16	13:06	7/30/2016 13:06	0:27	No SPS	-	
	Root Cause	Fault was in 132 k	V Silchar - Imphal (I	PG) I line as the ju	imper opened i	n this line and tou	ched the tower.	Relays at Imphal (Man	i) end should not	have opera	ted.											
	Remedial Measures	POWERGRID to i	nform location of the	e fault in next PC	C meeting.Mal-	operation of Silch	ar end relays on l	Line-II to be further inv	estigated by POW	ERGRID.												
75	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	POWERGRID & MePTCL	30-Jul-16	14:38	7/30/2016 14:38	Khliehriat (PG) Khliehriat(ME)	DP, ZI, R-Y-B-E, 19.5 Kms.	Not applicable	No No	No No	-	-	-	-	30-Jul-16	14:44	7/30/2016 14:44	0:06	No SPS		
76	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	POWERGRID & MePTCL	30-Jul-16	14:51	7/30/2016 14:51	Khliehriat (PG) Khliehriat(ME)	DP, ZI, R-Y-B-E, 124 Kms. No tripping	Not applicable	No No	No No	-	-	-	-	30-Jul-16	15:18	7/30/2016 15:18	0:27	No SPS		
77	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	POWERGRID & MePTCL	30-Jul-16	14:38	7/30/2016 14:38	Khliehriat (PG) Khliehriat(ME)	DP, ZII, R-Y-B-E, 19.5 Kms. No tripping	Not applicable Not applicable	No No	No No	-	-	-	-	30-Jul-16	14:44	7/30/2016 14:44	0:06	No SPS		
	Root Cause	To be discussed in	the next PCC meeting	ng.									•				-					
	Remedial Measures	MePTCL to confir generation is full a	m whether Meghalay t this time. Matter re	ya has installed Nu ferred to PCC me	imerical relays	on their feeders in	next PCC meeti	ng. Installation of Nume	erical relays on 13	32 kV Khlis	ehriat (PG)	- Leshka ((ME) I&II	eeders coul	d not be c	ompleted due to	non-availa	bility of shutdown	of these fe	eeders as Le	shka	
88	220 kV Kopili - Misa III	POWERGRID	NEEPCO & POWERGRID	17-Aug-16	12:54	8/17/2016 12:54		DP, ZI, Y-E, 58 Kms.	Not Furnished	No	No					17-Aug-16	13:21	8/17/2016 13:21	0:27	No SPS		
	220 by Fonili Mico III		NEEPCO &	17 Ana 16	12.22	9/17/2014 12:22	Misa Kopili	DP, ZI, Y-E, 15 Kms. DP, ZI, Y-E, 61.64 Kms.	Not Furnished Not Furnished	No No	No No					17 Ann 16	17-21	0/17/2014 17:21	2:50	Ma one		

89	220 ку корш - міза пі	POWERORID	POWERGRID	1/-Aug-10	15:22	0/1//2010 15:44	Misa	DP, ZI, Y-E, 14.7 Kms.	Not Furnished	No	No	-	-	-	-	1/-Aug-10	17:21	6/1//2010 17:21	3:39	NO SES	-	
	Root Cause	Vegetation fault ca	aused by miscreants	at location No 178	3-179.			Kilis.												l .		
	Remedial Measures	Referred to PCCM	1.																			
90	400 kV Ranganadi- Biswanath Charali 1	POWERGRID	NEEPCO & POWERGRID	18-Aug-16	20:58	8/18/2016 20:58	Ranganadi Biswanath	No tripping	Not applicable	No	No	-	-	-	-	18-Aug-16	21:21	8/18/2016 21:21	0:23	No SPS	-	
	400 kV Balipara-						Charali Balipara	Over Voltage	Not applicable Not applicable	No	No No											
91	Biswanath Charali I	POWERGRID	POWERGRID	18-Aug-16	20:58	8/18/2016 20:58	Biswanath Charali	Over Voltage	Not applicable	No	No	-	•	-	-	18-Aug-16	21:31	8/18/2016 21:31	0:33	No SPS	-	
	Root Cause	From PMU at Bali	ipara,voltage was arc	ound 438 kV for 1	Minute.																	
	Remedial Measures	Over Voltage Rela	ny settings of Biswan	ath Charali to be s	reviewed by PC	WERGRID.DR o		submitted by POWERO	ı		1 1			1 1						1		
98	220 kV BTPS - Salakati I	POWERGRID	AEGCL & POWERGRID	31-Aug-16	17:45	8/31/2016 17:45	BTPS Salakati	Tripped No tripping	Not Furnished Not Furnished	No No	No No	-	-	-	-	31-Aug-16	18:48	8/31/2016 18:48	1:03	No SPS	-	
							BTPS	Not Furnished	Not Furnished	No	No											
99	220 kV BTPS - Salakati II	POWERGRID	AEGCL & POWERGRID	31-Aug-16	17:45	8/31/2016 17:45	Salakati	Due to tripping of Bus Coupler	Not Furnished	No	No		-	-		31-Aug-16	19:01	8/31/2016 19:01	1:16	No SPS	-	
100	220/132 kV, 50 MVA ICT I at Salakati	POWERGRID	POWERGRID	31-Aug-16	17:45	8/31/2016 17:45	Salakati	Earth Fault	Not applicable	No	No			-	-	31-Aug-16	19:22	8/31/2016 19:22	1:37	No SPS	-	
101	220 kV Birpara -	POWERGRID	POWERGRID	31-Aug-16	17:45	8/31/2016 17:45	Birpara	Directional Earth Faul	Not applicable	No	No	_		_	_	31-Aug-16	19:15	8/31/2016 19:15	1:30	No SPS		
	Salakati I						Salakati	No tripping	Not applicable	No	No											
	Root Cause		alakati II jumper oper																			
	Remedial Measures	umper tightning to be done by POWERGRID. Tripping of 220 kV Birpara - Salakati I line to be investigated. Balipara R phase Earth fault, 57.4 Kms. Not applicable No No																				
103	132 kV Balipara -	AEGCL	POWERGRID &	5-Jul-16	22:04	7/5/2016 22:04	Balipara	R phase Earth fault, 57.4 Kms.	Not applicable	No	No	-	-		-	5-Jul-16	23:08	7/5/2016 23:08	1:04	No SPS	-	
	Depota		AEGCL				Depota	No Indication	Not applicable	No	No											
	Root Cause	Matter referred to	Matter referred to next PCC meeting. To be finalized after next PCC meeting.																			
	Remedial Measures	To be finalized aft	o be finalized after next PCC meeting Relinant R phase Earth fault, Not applicable No. No.																			
							Balipara	R phase Earth fault, 27.5 Kms.	Not applicable	No	No											
104	132 kV Balipara - Depota	AEGCL	POWERGRID & AEGCL	6-Jul-16	12:41	7/6/2016 12:41	Depota	No tripping	Not applicable	No	No	-	-	-	-	6-Jul-16	12:55	7/6/2016 12:55	0:14	No SPS	-	
	Root Cause	Matter referred to	next PCC meeting.		•		•															
	Remedial Measures	To be finalized aft	be finalized after next PCC meeting Dimmour DPR, Z-L B-E, 4.71 Not Furnished No No																			
404	132 kV Dimapur -	, room	POWERGRID &	49.7.144			Dimapur	DPR, Z-I, B- E, 4.71 Kms.	Not Furnished	No	No									N. 000		
106	Bokajan	AEGCL	AEGCL	13-Jul-16	13:30	7/13/2016 13:30	Bokajan	Not Furnished	Not Furnished	No	No	_	-	-	_	13-Jul-16	14:03	7/13/2016 14:03	0:33	No SPS	-	
	Root Cause	Matter referred to	to be finalized after next PCC meeting.																			
	Remedial Measures	To be finalized aft	to be finalized after next PCC meeting																			
108	132 kV Balipara - Depota	AEGCL	POWERGRID & AEGCL	15-Jul-16	0:17	7/15/2016 0:17	Balipara	DPR, Z-III, B- E, 30.5 Kms.	Not applicable	No	No	-	-	-	-	15-Jul-16	0:55	7/15/2016 0:55	0:38	No SPS	-	
			. 200				Depota	No tripping	Not applicable	No	No											
		Matter referred to																				
	Remedial Measures	To be finalized aft	er next PCC meeting	·	1	1	T	DP, ZII, R-Y-E, 68.46												1		
112	132 kV Dimapur - Imphal	POWERGRID	POWERGRID	30-Jul-16	8:28	7/30/2016 8:28	Dimapur	Kms. DP, ZII, R-Y-E, 85.83 Kms.	Not Furnished Not Furnished	Yes	Yes	-	-	-	-	30-Jul-16	8:59	7/30/2016 8:59	0:31	No SPS	-	Not in Logsheet, from CPCC
No	Root Cause	Fault not involving	g ground as there no	neutral current du	ring the fault(fi	rom DR).Root cau	se could not be f	inalized.														
neutral current	Remedial Measures	Remedial measure	after finalizing the	oot cause.																		
118	132 kV Khliehriat (PG) -	MePTCL	POWERGRID &	3-Aug-16	17:21	8/3/2016 17:21	Khliehriat (PG)	DP, ZI, R-Y-B-E, 101.5 Kms.	Not Furnished	No	No	_			_	3-Aug-16	17:38	8/3/2016 17:38	0:17	No SPS		
	Khliehriat (ME) II		MePTCL				Khliehriat(ME)	No tripping	Not Furnished	No	No											
	Root Cause		the next PCC meeti		Meptri co	p Numorical est	will be installed	in 132 kV Khliehriat - ?	NEIGRIHMe 1:	hefore 21	d Sentemb	#16 or i	formed 12-	thing stor-	to be inc.	armed Towar fo	atine resist	ance to be more	ed and er	rolling or -	rt to be	
	Remedial Measures	furnished by MeP	ig yet to get complete FCL.POWERGID to	furnish DR outpu	nt of Khliehrian	(PG).	1		1			v as mi	eu. nai	g status	. to oe mfe	10wer IO	g resist	cc to be illeastif	ын раг	этий цево	00	
121	132 kV Doyang - Mokokchung(NA)	DoP Nagaland	NEEPCO & DoP,Nagaland	4-Aug-16	17:56	8/4/2016 17:56	Doyang Mokokchung(N	Power Swing Not Furnished	Not applicable Not applicable	No No	No No	-	-	-	-	4-Aug-16	19:30	8/4/2016 19:30	1:34	No SPS	-	
	Root Cause	Matter referred	next PCC montin -	<u> </u>	<u> </u>	<u> </u>	A)						1							<u> </u>		
			next PCC meeting.																			
	Remedial Measures	10 be finalized in	next PCC meeting		1		Khliehriat (PG)	DP, ZI, R-Y-E, 15.85	Not Furnished	No	No											
123	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	POWERGRID & MePTCL	8-Aug-16	23:25	8/8/2016 23:25	Khliehriat (PG)	Kms. No tripping	Not Furnished Not Furnished	NA NA	NA NA	-	-	-	-	8-Aug-16	23:43	8/8/2016 23:43	0:18	No SPS	-	
	Root Cause	To be discussed in	the next PCC meeti	ng.	!	Į.	1	!	!													
	Remedial Measures	33 kV yard earthin furnished by MeP	ng yet to get complet FCL.POWERGID to	ed as informed by furnish DR outpu	MePTCL.Spar at of Khliehriate	e Numerical relay (PG).	will be installed	in 132 kV Khliehriat - ?	NEIGRIHMS line	before 21	st Septembe	r'16 as inf	formed. Ear	rthing status	to be info	ormed, Tower fo	oting resist	ance to be measure	ed and pat	rolling repo	rt to be	
136	132 kV Lumshnong -	MePTCL &	MePTCL &	15-Aug-16	22:15	8/15/2016 22:15	Lumshnong	DP, ZI, Y-B-E, 34.8 Kms.	Not Furnished	No	No					15-Aug-16	23:12	8/15/2016 23:12	0:57	No SPS		
130	Panchgram	AEGCL	AEGCL	13-Aug-10	24:13	0/10/20/10 42:15	Panchgram	DP, ZI, Y-B-E	Not Furnished	No	No					13-Aug-10	23:12	W 13/2010 23:12	0.31	NO SES		
	Root Cause	Due to vegetation	fault in the line as be	oth end relays oper	rated in Zone I.																	

	Remedial Measures	Vegetation clearan	ce to be done by Mel	PTCL & AEGCL	and status to b	e reported.																
137	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	POWERGRID &	16-Aug-16	0:11	8/16/2016 0:11	Khliehriat (PG)	DP, ZI, R-Y-B-E, 130.7 Kms.	Not Furnished	No	No	-	-	-	-	16-Aug-16	1:24	8/16/2016 1:24	1:13	No SPS		
	(-1.5)						Khliehriat(ME)	No tripping	Not Furnished	No	No											
	Root Cause		the next PCC meeting																			
	Remedial Measures	33 kV yard earthin furnished by MePl	g yet to get complete rCL.POWERGID to	d as informed by furnish DR outpu	MePTCL.Spar et of Khliehriate	e Numerical relay (PG).	will be installed i	in 132 kV Khliehriat - N	EIGRIHMS line	before 21	st Septembe	r'16 as inf	formed. Ear	rthing statu	s to be inf	ormed, Tower fo	oting resis	tance to be measur	ed and pati	rolling repo	rt to be	
151	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	POWERGRID & MePTCL	25-Aug-16	13:59	8/25/2016 13:59	Khliehriat (PG)	DP, ZI, R-Y-B, 26.72 Kms.	Not Furnished	No	No	-	-	-	-	25-Aug-16	14:36	8/25/2016 14:36	0:37	No SPS	-	
							Khliehriat(ME)	No tripping	Not Furnished	No	No											
	Root Cause	To be discussed in	the next PCC meetir	ig.																		
	Remedial Measures	33 kV yard earthin furnished by MeP1	X) yard earthing yet to get completed as informed by MePTCL. Spare Numerical relay will be installed in 132 kV Khilichriat - NEIGRIHMS line before 21st September 16 as informed. Earthing status to be informed, Tower footing resistance to be measured and partolling report to be islabel by MePTCL. POWERGID to furnish DR output of Khilerbriat(PG).																			
154	132 kV Loktak - Jiribam(PG)	POWERGRID	NHPC & POWERGRID	25-Aug-16	15:43	8/25/2016 15:43	Loktak	DP, ZII, B-E, 72.5 Kms. DP, ZI, B-E, 11.94	Not Furnished Successful	No	No	-				25-Aug-16	15:57	8/25/2016 15:57	0:14	No SPS		
							Jiribam(PG)	Kms.	operation	Yes	No											
	Root Cause	Fault in the line.Re	It is the line Root cause could not be concluded due to unavailability of DR outputs. CC link at Lebrak to be checked AB schema at Lebrak and lighten to be consistent.																			
	Remedial Measures	PLCC link at Lokt	C.C. link at Loktak to be checked.AR scheme at Loktak and Jiribam to be reviewed.																			
160	132 kV Khliehriat (PG) - Khliehriat (ME) II	MePTCL	POWERGRID & MePTCL	28-Aug-16	1:41	8/28/2016 1:41	Khliehriat (PG)	DP, ZI, R-Y-B, 11 Kms.	Not Furnished	No	No				_	28-Aug-16	1:51	8/28/2016 1:51	0:10	No SPS		
	Killenriat (ME) II		MEFICE				Khliehriat(ME)	No tripping	Not Furnished	No	No											
	Root Cause	to be discussed in the next PCC meeting.																				
	Remedial Measures		XV yard earthing yet to get completed as informed by MePTCL.Spare Numerical relay will be installed in 132 kV Khliehriat - NEIGRIHMS line before 21st September 16 as informed. Earthing status to be informed, Tower footing resistance to be measured and patrolling report to be islend by MePTCL.POWERGID to furnish DR output of Khliehriat(PG).																			
162	132 kV Khliehriat (PG) -	MePTCL	POWERGRID &	29-Aug-16	14:29	8/29/2016 14:29	Khliehriat (PG)	DP, ZI, R-Y-B-E, 80.69 Kms.	Not Furnished	No	No					29-Aug-16	14:48	8/29/2016 14:48	0:19	No SPS		
102	Khliehriat (ME) II	Merice	MePTCL	29-Aug-10	14.29	8/29/2010 14:29	Khliehriat(ME)	No tripping	Not Furnished	No	No					29-Aug-10	14.48	8/29/2010 14:48	0.19	10 313		
	Root Cause	To be discussed in	the next PCC meetir	ng.																		
	Remedial Measures	33 kV yard earthin furnished by MeP1	g yet to get complete fCL.POWERGID to	d as informed by furnish DR outpu	MePTCL.Spar t of Khliehriat	e Numerical relay (PG).	will be installed	in 132 kV Khliehriat - N	EIGRIHMS line	before 21	st Septembe	r'16 as inf	formed. Ear	rthing statu	s to be inf	ormed, Tower fo	oting resis	tance to be measur	ed and pati	olling repo	rt to be	
163	132 kV Surjamaninagar-	POWERGRID	TSECL & OTPC	30-Aug-16	17:00	8/30/2016 17:00	Surjamaninagar	DP, ZI, R-E,15.52 Kms.	Not Furnished	No	No					30-Aug-16	17:41	8/30/2016 17:41	0:41	No SPS		
	Palatana II						Palatana	DP, ZI, R-E,19.84 Kms.	Not Furnished	No	No											
	Root Cause	Due to fault in the	line.Root cause coul-	d not be conclude	d due to unava	ilability of DR out	puts.															
	Remedial Measures	POWERGRID to 1	urnish more details f	or further analysi	s.																	
164	132 kV Biswanath Charali-Pavoi I	POWERGRID	POWERGRID & AEGCL	30-Aug-16	18:21	8/30/2016 18:21	Biswanath Charali	DP, ZI, R-E, 2.8 Kms. DP, ZI, R-E, 7.719	Not Furnished	Yes	No	-		-	-	30-Aug-16	18:48	8/30/2016 18:48	0:27	No SPS	-	
	Root Cause	Due to fault is de-	line.Root cause coul	d not be somethed	d due to un	ilability of DP	Pavoi	Kms.	Not Furnished	No	No											
						naonity or DK ou	puts.															
	Remedial Measures	POWERGRID to 1	lurnish DR of BNC e	nd for further ana	dysis.	1	AGTPP	No tripping	Not Furnished	No	No			ı .		1						
166	132 kV AGTPP - Agartala II	POWERGRID	NEEPCO & TSECL	31-Aug-16	8:01	8/31/2016 8:01	AGTPP	No tripping Not Furnished	Not Furnished	No	No No	-	-	-	-	31-Aug-16	14:46	8/31/2016 14:46	6:45	No SPS	-	
	Root Cause	Root cause could r	not be concluded due	to unavailability	of DR outputs	as well as proper r	elay indications.	-	•							•						
	Remedial Measures	POWERGRID to 1	urnish patrolling rep	ort for further ana	llysis.Relay ind	lications to be furn	ished by NEEPC	O & SLDC,TSECL.														