

Northern Region-Grid Event Report for March 2020

S.No.	Region	Name of Elements (Tripped/Manually opened)	Affected Area	Owner/ Agency	Outage		Revival		Duration	Event (As reported)	Generation Loss (MW)	Load Loss (MW)	Category as per CEA Grid Standards	Energy Unreserved (in MU)
					Date	Time	Date	Time						
1	NR	1) 250 MW Nathpa-Jhakri HPS - UNIT 5 2) 400KV Bus 2 at Nathpa Jhakri(SI) 3) 400KV Bus 4 at Nathpa Jhakri(SI) 4) 400KV Bus 1 at Nathpa Jhakri(SI) 5) 400KV Bus 3 at Nathpa Jhakri(SI) 6) 250 MW Nathpa-Jhakri HPS - UNIT 4 7) 68.67 MW Rampur HEP - UNIT 5 8) 68.67 MW Rampur HEP - UNIT 4 9) 250 MW Nathpa-Jhakri HPS - UNIT 6 10) 68.67 MW Rampur HEP - UNIT 3 11) 68.67 MW Rampur HEP - UNIT 6 12) 250 MW Nathpa-Jhakri HPS - UNIT 2 13) 250 MW Nathpa-Jhakri HPS - UNIT 1 14) 400 KV Nathpa Jhakri(SI)-Rampur HEP(SI) (PG) Ckt-2 15) 400 KV Nathpa Jhakri(SI)-Panchkula(PG) (PG) Ckt-1 16)400 KV Nathpa Jhakri(SI)-Rampur HEP(SI) (PG) Ckt-1 17) 400 KV Nathpa Jhakri(SI)-Panchkula(PG) (PG) Ckt-2 18) 400 KV Nathpa Jhakri(SI)-Karcham Wangtoo(JSW) (HBPCL) Ckt-1 19) 400 KV Nathpa Jhakri(SI)-Karcham Wangtoo(JSW) (HBPCL) Ckt-2	HIMACHAL PRADESH	JSW, POWERGRID, SJVNL	1-Mar-20	6:09	1-Mar-20	7:12	1:03	All this tripping occurred due to flashover in Y phase generator circuit breaker of unit 4 at 400KV Nathpa Jhakri HPS(250 MW) and hence bus bar protection operated at 400KV Nathpa Jhakri HPS. As per PMU, Y-N fault is observed which was cleared within 80ms. In antecedent conditions, Nathpa Jhakri generation was unit 1- 199 MW, unit 2- 178 MW, unit 5- 192MW & unit 6- 241 MW and Rampur generation was unit 1- 60 MW, unit 2- 61 MW, unit 3- 54MW & unit 4- 55 MW.	1040	0	GD-1	0.00
2	NR	1) 125 MVAR Bus Reactor No 1 at 400KV Manesar(PG) 2) 400 KV Neemrana-Manesar (PG) Ckt-2	HARYANA	POWERGRID	3-Mar-20	10:57	3-Mar-20	15:22	0:18	Bus fault occurred during opening of ICT 1 at Manesar(PG) leading to tripping of 125 MVAR Bus Reactor No 1 at 400KV Manesar(PG) & 400 KV Neemrana-Manesar (PG) Ckt-2. As per PMU, Y-N fault is observed in the system. In antecedent conditions, 400 KV Neemrana-Manesar (PG) Ckt-2 carrying 114MW.	0	0	GI-2	0.00
3	NR	1) 400 KV Bhiwadi-Hissar (PG) Ckt-2 2) 400 KV Bhiwadi-Hissar (PG) Ckt-3	HARYANA	POWERGRID	3-Mar-20	11:00	3-Mar-20	12:42	1:42	400 KV Bhiwadi-Hissar (PG) Ckt-3 tripped due to Y-ph optical CT failure at Bhiwadi. At the same time, 400 KV Bhiwadi-Hissar (PG) Ckt-2 also tripped on overvoltage. As per PMU, Y-N fault is observed in the system. In antecedent conditions, 400 KV Bhiwadi-Hissar (PG) Ckt-2 & Ckt-3 carrying 135MW & 101MW respectively.	0	0	GI-2	0.00
4	NR	1) 400 KV Dulhasti(NH)-Kishenpur(PG) (PG) Ckt-1 2) 400 KV Dulhasti(NH)-Kishenpur(PG) (PG) Ckt-2	J & K	POWERGRID	4-Mar-20	15:20	4-Mar-20	15:30	0:10	400 KV Dulhasti(NH)-Kishenpur(PG) (PG) Ckt-2 tripped on Y-B fault. At the same time, 400 KV Dulhasti(NH)-Kishenpur(PG) (PG) Ckt-1 also tripped from Dulhasti end only, leading to tripping of Unit#1 at Dulhasti(NHPC) due to loss of evacuation path. As per PMU, Y-B fault is observed in the system. In antecedent conditions, Unit#1 at Dulhasti(NHPC) generating 110MW.	110	0	GD-1	0.00
5	NR	1) 400KV Dadri(NT)-Maharanibagh(PG) (PG) Ckt-1	NEW DELHI	POWERGRID	4-Mar-20	23:26	4-Mar-20	23:53	0:27	400KV Ballabgarh(PG)-Maharanibagh(PG) (PG) Ckt-1 manually opened on high voltage. During opening of this line, 400KV Dadri(NT)-Maharanibagh(PG) (PG) Ckt-1 also tripped leading to complete outage of 400/220kV Maharanibagh(PG). As per PMU, Y-N fault is observed in the system. In antecedent conditions, 400KV Ballabgarh(PG)-Maharanibagh(PG) & 400KV Dadri(NT)-Maharanibagh(PG) carrying 21MW & 236MW respectively.	0	360	GD-1	0.06
6	NR	1) 400 KV Bawana-Mundka (DV) Ckt-1 2) 400 KV Deepalpur(JHKT)-Bawana(DV) (PG) Ckt-1 3) 400 KV Bamoli(DV)-Jhatikara(PG) (DV) Ckt-1	NEW DELHI	DTL, POWERGRID	5-Mar-20	0:41	5-Mar-20	5:09	4:28	400 KV Bawana-Mundka (DV) Ckt-1 & 400 KV Deepalpur(JHKT)-Bawana(DV) (PG) Ckt-1 tripped on overvoltage. At the same time, 400 KV Bamoli(DV)-Jhatikara(PG) (DV) Ckt-1 also tripped on overvoltage. As per PMU, No fault is observed in the system. In antecedent conditions, 400 KV Bawana-Mundka (DV) Ckt-1 & 400 KV Deepalpur(JHKT)-Bawana(DV) (PG) Ckt-1 carrying 170MW & 33MW respectively.	0	0	GI-2	0.00
7	NR	1) 400/220 kv 315 MVA ICT 2 at Obra_B(UP) 2) 400 kv Obra_B-Rewa Road (UP) Ckt-1 3) 400/220 kv 315 MVA ICT 1 at Obra_B(UP) 4) 400/220 kv 240 MVA ICT 3 at Obra_B(UP)	UTTAR PRADESH	UPPTCL	5-Mar-20	14:13	5-Mar-20	15:19	1:06	Bus bar protection operated at 220kV Obra resulting in tripping of 220kV lines, 400/220kV ICT 1, 400/220kV ICT 2, 400/220kV ICT 3 & 400 KV Obra_B-Rewa Road (UP) Ckt-1 along with Unit#9, Unit#10 & Unit#11 at Obra. As per PMU, Fluctuations observed in the phase voltages. Generation loss was around 420MW.	420	0	GD-1	0.00
8	NR	1) 400 KV Ballabgarh(PG)-Tughlakabad(PG) (DTL) Ckt-1 2)400 KV Ballabgarh(PG)-Tughlakabad(PG) (DTL) Ckt-2	HARYANA, NEW DELHI	POWERGRID	5-Mar-20	19:55	5-Mar-20	21:15	1:20	400 KV Ballabgarh(PG)-Tughlakabad(PG) (DTL) Ckt-2 tripped on B-N fault. At the same time, 400 KV Ballabgarh(PG)-Tughlakabad(PG) (DTL) Ckt-1 tripped due to DT received at Tughlakabad(PG) end. As per PMU, multiple B-N faults are observed in the system. In antecedent conditions, 400 KV Ballabgarh(PG)-Tughlakabad(PG) (DTL) Ckt-1 & 2 carrying 71MW & 61 MW respectively.	0	0	GI-2	0.00
9	NR	1) 400 KV Dadri(NT)-Maharanibagh(PG) (PG) Ckt-1	NEW DELHI	POWERGRID	6-Mar-20	23:52	7-Mar-20	0:01	0:09	400KV Ballabgarh(PG)-Maharanibagh(PG) opened on high voltage at 2351Hrs. After sometime, 400 KV Dadri(NT)-Maharanibagh(PG) (PG) tripped on overvoltage leading to outage of 400/220kV Maharanibagh(PG). AS per PMU, No fault is observed in the system. In antecedent conditions, 400 KV Dadri(NT)-Maharanibagh(PG) carrying 324MW.	0	200	GD-1	0.03
10	NR	1) 400 KV Gorakhpur(PG)-Muzaffarpur(PG) (POWERLINK) Ckt-1 2) 400 KV Gorakhpur(PG)-Motihari(BS) (PG) Ckt-1 3) 400 KV Gorakhpur(PG)-Gorakhpur(UP) (PG) Ckt-1 4) 4400 KV Gorakhpur(PG)-Gorakhpur(UP) (PG) Ckt-2	UTTAR PRADESH	POWERGRID, POWERLINK	7-Mar-20	6:06	7-Mar-20	7:41	1:35	400 KV Gorakhpur(PG)-Muzaffarpur(PG) (POWER LINK) Ckt-1 tripped on Y-B fault. 400 KV Gorakhpur(PG)-Motihari(BS) (PG) Ckt-1 tripped due to DT received at Gorakhpur end. At the same time, 400 KV Gorakhpur(PG)-Gorakhpur(UP) (PG) Ckt-1 & 2 also tripped. As per PMU, Y-B fault is observed in the system. In antecedent conditions, 400 KV Gorakhpur(PG)-Muzaffarpur(PG) (POWER LINK) Ckt-1 400 KV Gorakhpur(PG)-Motihari(BS) (PG) Ckt-1 carrying 51MW & 134MW respectively.	0	0	GI-2	0.00
11	NR	1) 250 MW Chhabra TPS - UNIT 1 2) 400/220 kv 315 MVA ICT 1 at Chhabra(RVUN) 3) 250 MW Chhabra TPS - UNIT 2	RAJASTHAN	RRVNL	10-Mar-20	17:41	10-Mar-20	20:00	2:19	400/220 kv 315 MVA ICT 1 at Chhabra(Raj) tripped due to operation of PRV protection. At the same time, 250MW Unit#1 & 250MW Unit#2 at Chhabra TPS also tripped. As per PMU, No fault is observed in the system. In antecedent conditions, 400/220 kv 315 MVA ICT 1 at Chhabra(Raj) carrying 133MW and Unit#1 & Unit#2 generating 186MW & 184MW respectively.	370	130	GD-1	0.3
12	NR	1) 400 KV Alaknanda GVK(UPC)-Srinagar(UK) (UK) Ckt-2 2) 400 KV Alaknanda GVK(UPC)-Srinagar(UK) (UK) Ckt-1 3)400 KV Alaknanda GVK(UPC)-Vishnuprayag(JP) (UP) Ckt-1	UTTAR PRADESH	PTCL, UPPTCL	12-Mar-20	3:46	12-Mar-20	6:15	2:29	400 KV Alaknanda GVK(UPC)-Srinagar(UK) (UK) Ckt-1 & 2, 400 KV Alaknanda GVK(UPC)-Vishnuprayag(JP) (UP) Ckt-1 tripped on overvoltage. As per PMU, three phase fault is observed in the system. In antecedent conditions, Unit#2 at Alaknanda(UP) generating 82MW & 400 KV Alaknanda GVK(UPC)-Muzaffarnagar (UP) carrying 91MW.	135	0	GD-1	0
13	NR	1) 220 KV Wagoora(PG)-Pampore(PDD) (PDD JK) Ckt-1 2) 220 KV Wagoora(PG)-Pampore(PDD) (PDD JK) Ckt-2	J & K	PDD JK	12-Mar-20	7:42	12-Mar-20	9:03	1:21	220 KV Wagoora(PG)-Pampore(PDD) (PDD JK) Ckt-1 & 2 tripped at 0742Hrs due to Fault in downward JK PDD system. Also 220 KV Wagoora(PG)-Pampore(PDD) (PDD JK) Ckt-1 & 2 again tripped at 1035Hrs due to Y-N fault in JK system and operation of zone-3 protection. As per PMU, B-N fault and Y-N fault with delayed clearance of 600ms and 1000ms observed at 0742Hrs and 1035Hrs respectively. In antecedent conditions, 220 KV Wagoora(PG)-Pampore(PDD) (PDD JK) Ckt-1 & 2 carrying 147MW & 154MW respectively.	0	450	GD-1	0.68
14	NR	1) 400 KV Fatehpur-Mainpuri (PG) Ckt-1 2) 400 KV Fatehpur-Mainpuri (PG) Ckt-2	UTTAR PRADESH	POWERGRID	20-Mar-20	16:51	20-Mar-20	19:02	2:11	400 KV Fatehpur-Mainpuri (PG) Ckt-2 tripped due to failure of Y phase LA. At the same time, 400 KV Fatehpur-Mainpuri (PG) Ckt-1 also tripped on overvoltage protection operated at Fatehpur end and DT received at Mainpuri end. As per PMU, Y-N fault with unsuccessful autoreclosing is observed in the system.	0	0	GI-2	0
15	NR	1) 400 KV Mandola(PG)-Bawana(DV) (DV) Ckt-2, , 2) 400 KV Deepalpur(JHKT)-Bawana(DV) (PG) Ckt-1 3) 216 MW Bawana GPS - UNIT 3 4) 253 MW Bawana GPS - UNIT 6 5) 400 KV Mandola(PG)-Bawana(DV) (DV) Ckt-1 6) 216 MW Bawana GPS - UNIT 4 7) 400 KV Bawana-Mundka (DV) Ckt-2 8) 400 KV Bawana-Mundka (DV) Ckt-1 9) 400 KV Abdullapur(PG)-Bawana(DV) (PG) Ckt-1 10) 500 MW ISTPP (Jhajjar) - UNIT 2 11) 400 KV Bawana CCGTB(DTL)-Bahadurgarh(PG) (PG) Ckt-1 12) 400 KV Bawana CCGTB(DTL)-Bihwani(PG) (PG) Ckt-1	NEW DELHI	APCPL, DTL, DTL/Pragati CCGT, POWERGRID	21-Mar-20	23:40	22-Mar-20	1:00	1:20	As reported by Delhi SLDC at 23:40hrs, Y-Phase CT of bay no.1852 of 400KV Bawana-Mandola ckt-II and Bus-II failed resulting in bus bar protection operation. Generation at CCGT Bawana got affected due to tripping of lines. At 23:41 Jhajjar unit no.2 tripped because of Jerk due to multiple tripping of lines. At per PMU, three phase fault followed by Y-N fault with delayed clearance of 300ms and 520ms is observed in the system.	480	230	GD-1	0.38

Western Region-Event Report for March 2020

S.No	Region	Name of Elements	Owner/Agency	Outage		Revival		Outage Duration	Event	Generation Loss (MW)	Load Loss (MW)	Category as per CEA standards	Energy Unserved (MU)
				Date	Time	Date	Time	Time					
1	WR	Tripping of 1.400 kv Champa Bus 2 2.400 kv Champa-Lara 2	PGCIL	5-Mar-20	21:15	5-Mar-20	23:53	2:38	During the B-E fault on 400 kv Champa-Lara 2, Tie breaker at Champa end was not opened which resulted in LBB operation and tripping of 400 kv Champa Bus 2.	NII	NII	GI-2	NII
2	WR	Tripping of 1.220 kv Mapusa-Ponda 2.220 kv Mahalakshmi-Amona 3.220 kv Tillari-Amona	Goa	8-Mar-20	15:15	8-Mar-20	15:27	0:12	At 15:15 Hrs, 220 kv Mapusa-Ponda tripped on Y-B phase fault. 220 kv Mahalakshmi-Amona tripped from Amona end only and 220kv Amona-Ponda 1 tripped only at Ponda end during the same time. At 15:19 hrs, the B phase jumper of 220kv Halkarni-Tillari opened at Tillari S/s, thereby the load on 220kv Tillari Amona became zero. Simultaneously the 220kv ICT-1 at Amona tripped on overload and this made the loading on 220kv Mapusa-Amona zero. At 15:27 hrs, the 220kv ICT-1 at Amona was charged and 220kv Mapusa-Amona line which was healthy was loaded.	NII	242	GI-1	0.1000
3	WR	Tripping of 1.220kv Kim-Kosamba 1 2.220kv Kim-Utran 2 3.220 kv Kim-Sugen 2 4.220 kv Kim-L&T Mora 5.220 kv GSEG-Kosamba 6.GSEC 351 MW Stage 2 unit	GETCO	18-Mar-20	10:15	18-Mar-20	10:35	0:20	At 220kv Kim s/s, Y phase isolator jumper of 220kv KIM L&T Mora Line towards 220 kv BUS-2 got detached and resulted in tripping of all the elements connected to 220kv Bus 2 on BB protection operation . GSEG Stage 2 (351 MW)unit tripped on the jerk.	350	200	GI-1	0.0667
4	WR	Tripping of 1.400 kv Tamnar-JPL (stage 2) 2 2.765 kv Tamnar-Kotra 1&2 3.765/400 kv Tamnar ICT 3 4.JPL Units 3&4 (Stage 2) 5.JPL Unit 4 (Stage 1) 6.400 kv JPL Stage1 to 2 Interconnector 7.400 kv JPL(stage 1)-Raipur 1&2	PGCIL&JPL	19-Mar-20	14:36	19-Mar-20	15:07	0:31	At 14:36Hrs, 400 kv JPL-Tamnar 2 tripped on B-E fault. As the fault was not cleared immediately, JPL Units 3&4 tripped. At 14:44 Hrs, R phase CT of 708 bay (towards Bus 1 side) at Tamnar failed and resulted in tripping of 765kv Tamnar BR main and tie bays on differential protection operation. As the fault was in the CT, the fault was not sensed as in Zone fault by ICT and the fault was fed through Bus 1 Main bay of ICT 3. 765 kv Tamnar-Kotra 1&2 tripped from Zone 2 from Kotra end(Time setting: 350 ms).765/400 kv Tamnar ICT 3 tripped due to 708 bay R phase CT SF6 lockout. 400 kv JPL-Raipur 1&2 tripped on reverse zone protection operation from JPL end. JPL Inter Connector line tripped on Over Voltage protection operation. JPL stage 1 unit 4 tripped due to the loss of evacuation path. Due to these tripping at Tamnar, JPL stage 1 and JPL stage 2 stations became dark.	1330	NII	GD-1	NII
5	WR	Tripping of 1.400kv Pithampur Bus 1 2.400 kv Pithampur-Singhaji 2&4 3.400 kv Pithampur-Indore 1 4.400 kv Pithampur-Badnawar 1	MPPTCL	26-Mar-20	21:13	26-Mar-20	22:56	1:43	400 kv Pithampur-Indore 1 tripped on Y-E fault from Indore end. But due to the delayed clearance of fault from Pithampur end, LBB protection operated and all the elements connected to 400 kv Pithampur Bus 1 tripped.	NII	NII	GI-2	NII

Southern Region-Grid Event Report for March 2020

Sl. No.	Region	Name of Elements (Tripped/Manually opened)	Owner / Agency	Outage		Revival		Outage Duration	Event (As reported)	Generation Loss (MW)	Load Loss (MW)	Category as per CEA Grid Standards	Energy Unserved (MU)
				Date	Time (Hrs)	Date	Time (Hrs)	Time					
1	SR	i. 400kV Nelamangala - Hassan ii. 400kV Talguppa - Nelamangala iii. 400kV Talguppa - Hassan	KPTCL	1-Mar-20	13:57	1-Mar-20	14:30	33 mins	Partial GD in Karnataka and North Kerala : 400kV Mysore - Nelamangala D/C was under planned shutdown in the antecedent. Triggering incident was BN fault in 400kV Nelamangala Hassan line. Since A/r was not in auto mode due to insulator replacement works, line tripped on operation of Zone-1 distance protection at both the ends. Subsequently, 400kV Talaguppa - Hassan line tripped only at Talaguppa end on operation of OC protection. 400kV Nelamangala - Talaguppa tripped on Zone-1 distance protection at both the ends due to RN fault. A/r was not in auto mode due to insulator replacement works. This resulted in complete loss of supply at 400kV stations viz. UPCL, Talaguppa, Hassan, Mysore, Kozhikode and 37 nos. 220kV stations in Karnataka and 6 nos. 220kV stations in Kerala.	1754 MW	2380 MW (KA-2000MW & KL-380MW)	GD-1	----
2	SR	i. 220kV Kayamkulam - Edappon ii. 220kV Edamon - Edappon iii. 220/110kV, 100MVA ICT-1 and 2	KSEB	3-Mar-20	7:43	3-Mar-20	9:42	1 Hr 59 mins	Complete outage of 220kV Edappon station of KSEB: Triggering incident was failure of 220kV B-phase CT of Bus coupler. This led to operation of bus bar protection resulting in tripping of all connected elements.	----	67 MW	GD-1	0.13
3	SR	i. 230kV Checkanurani - Pasumalai ii. 230kV Checkanurani - Theni iii. 230kV Checkanurani - Kinnimangalam iv. 230kV Checkanurani - Nallamayakkanpatti v. 230kV Checkanurani - Renganathapuram vi. 400/230kV ICT#1 and ICT#2 vii. 230kV Checkanurani - Sembatty viii. 230kV Checkanurani - TTPS ix. 230kV Checkanurani - Ind Bharat x. 230kV Checkanurani - Kayathar xi. 230kV Checkanurani - Savasapuram xx. 230kV Checkanurani - Amuthapuram.	TANTRANSCO	12-Mar-20	1:20	12-Mar-20	3:45	2 Hrs 25 mins	Complete Outage of 230kV Checkanurani SS of TANTRANSCO: Triggering incident was failure of Y phase CT of Bus Coupler at 230kV Checkanurani SS. Bus-1 and Bus-2 Busbar Protection operated resulting in the tripping of all connected elements. However, ICT#3 was not tripped. Since the failed CT was near Bus-1 side, due to non-tripping of ICT#3 which was connected to Bus-2, there was no fault feed after the isolation of Bus-1. Subsequently, ICT#3 was hand tripped.	----	----	GD-1	----
4	SR	i. 220kV Kolar PG- Kolar KA line-1 ii. 220kV Kolar PG - Kolar KA line-2	KPTCL	14-Mar-20	16:30	14-Mar-20	17:00	30 mins	Complete outage of 220kV Kolar, 220kV Malur, 220kV Sarjapur and 220kV VTP SS of KPTCL : During antecedent conditions, 220kV Kolar KA, 220kV Malur, 220kV Sarjapur and 220kV Vikas Tech Park (VTP) are radially fed from 220kV Kolar PG SS. Triggering incident was tripping of 220kV Kolar PG- Kolar KA line-1 at Kolar KA end due to suspected mal-operation of Pole Discrepancy relay. After the tripping of 220kV Kolar PG-Kolar KA-1, 220kV Kolar PG-Kolar KA-2 got over loaded and tripped at Kolar PG end due to operation of DEF protection. This resulted in complete loss of supply at 220kV Kolar KA, 220kV Malur, 220kV Sarjapur and 220kV Vikas Tech Park (VTP) SS.	----	380 MW	GD-1	0.19
5	SR	i. 220kV Shimoga - Varahi line-2 ii. All other connected elements at 220kV Shimoga	KPTCL	19-Mar-20	17:08	19-Mar-20	17:28	20 mins	Complete outage of 220kV Shimoga station of KPTCL: During antecedent conditions, all the elements were connected to Bus-1 North bus at 220kV Shimoga SS. Triggering incident was R-N fault in 220kV Shimoga Varahi line-2 due to insulator decapping. At the same time, 220kV Bus-1 BBP maloperated at 220kV Shimoga SS. Since all the elements were connected to Bus-1, this resulted in the complete loss of supply at 220kV Shimoga SS.	----	160 MW	GD-1	0.05
6	SR	i. 400kV Guttur-Kaiga-1 ii. 400kV Guttur-Kaiga-2 iii. 400kV Guttur-Doni iv. 400kV Guttur-Narendra-1 v. 400kV Guttur-Narendra-2 vi. 400kV Guttur-Beeranahalli (Hiriyur)-1 vii. 400kV Guttur-Beeranahalli (Hiriyur)-2 viii. 400kV Guttur-JSWEL ix. 400/220kV, 315MVA ICT-1 & ICT-2	KPTCL	17-Mar-20	20:00	17-Mar-20	21:12	1 hr 12 mins	Complete outage at 400kV side of 400/220kV Guttur station of KPTCL: All elements at 400kV side of 400/220kV Guttur station tripped on operation of LBB protection of 400kV Kaiga - Guttur line-2. As reported P437 relay maloperated which led to the operation of LBB resulting in tripping of all connected 400kV elements.	----	----	GI-2	----
7	SR	i. 400/220kV, 315 MVA ICT-1 ii. 400/220kV, 315 MVA ICT-2 iii. 220kV VSS - Kakinada	APTRANSCO	22-Mar-20	15:45	22-Mar-20	17:07	1 hr 22 mins	Tripping of 220kV Bus-2 at 220kV Vizag switching station (VSS) of APTRANSCO: Triggering incident was failure of B-phase Lightning Arrester on 220kV VSS - Kakinada line. This resulted in operation of Bus bar protection of bus-2 at 220kV VSS. 400/220kV, 315 MYA ICT-1 and ICT-2 also tripped during the incident.	----	----	GI-1	----
8	SR	i. 230kV Kadaperi - Sriperumpudur line-1&2 ii. 230kV Kadaperi - Alandur line iii. 230kV Kadaperi - Kalvinthapattu iv. 230kV Kadaperi - Porur v. 230kV/110kV transformer#1,2 and 3	TANTRANSCO	29-Mar-20	4:04	29-Mar-20	7:03	2 hrs 59 mins	Multiple Tripping in 230kV Kadaperi SS of TANTRANSCO: Triggering incident was failure of B ph CT of 230kV Alandur - Kadaperi line and R ph CT of 230kV Sriperumpudur - Kadaperi line-2 at 230kV Kadaperi end. This resulted in bus fault at 230kV Kadaperi SS and Bus bar protection operated resulting in the tripping of all the elements connected at 230kV Kadaperi SS since 230kV Kadaperi SS has single bus configuration. There was no interruption at 110kV level.	----	----	GI-1	----

Eastern Region-Grid Event Report for March 2020

Sl. No.	Region	Name of major elements tripped	Owner / Agency	Outage		Revival		Outage Duration	Event	Generation Loss (MW)	Load Loss (MW)	Category as per CEA Grid Standards	Loss of Energy(in MU)
				Date	Time	Date	Time	Time					
1	ER	400 kV JITPL-Angul D/C	ISTS	5-Mar-20	19:27	5-Mar-20	20:01	0:34	At 19:27Hrs, 400kV JITPL-Angul D/C tripped on B-N fault. At the time of the event, inclement weather was reported. JITPL Unit#1 was generating around 560MW, which got tripped due to no evacuation path.	560	0	GD-1	0.0000
2	ER	220 kV Budhipadar – Korba 2 & 3 220 kV Budhipadar – IBTPS 2 & 4 160 MVA 220/132 kV ICT - 2 at Budhipadar 220 kV Budhipadar – Tarkhera 1 220 kV Budhipadar – Lapanga 1 220 kV Budhipadar – Bhusan 1 220 kV Budhipadar – AAL – 2	OPTCL	13-Mar-20	3:26	13-Mar-20	3:29	0:03	At 03:21 Hrs., 220 kV Budhipadar – Raigarh S/C tripped hrs. due to snapping of R phase wave trap jumper of this line. At 03:26 hrs., 220 kV Korba East –Budhipadar 2 and 3 also tripped on R phase to earth fault and Y phase to earth fault respectively. However, after 300 ms, 220 kV bus coupler breaker along with 220 kV Budhipadar Bus 2 and all connected elements got tripped at 220/132 kV Budhipadar S/S on bus bar protection relay operation.	0	0	GI-1	0.0000
3	ER	400 kV Teesta III - Kishangunj S/C 400 kV Teesta III - Dikchu S/C 400 kV Dikchu - Rangpo S/C	ISTS	15-Mar-20	13:52	15-Mar-20	14:31	0:39	At 13:52 hrs 400 kV Teesta III - Kishangunj S/C, 400 kV Teesta III - Dikchu S/C and 400 kV Dikchu - Rangpo S/C tripped resulting total power failure at Teesta III and Dikchu. DT received at Teesta III from remote ends for both feeders. E/F protection picked up at Dikchu end.	200	0	GD-1	0.0000
4	ER	220 kV Tenughat – Biharsharif S/C 220 kV Patratu – Tenughat S/C	JUSNL	15-Mar-20	16:12	15-Mar-20	16:47	0:35	At 16:12 hrs 220 kV Tenughat – Biharsharif S/C and 220 kV Patratu – Tenughat S/C tripped on earth fault protection resulting in tripping of both running units at Tenughat due to loss of evacuation path.	300	0	GD-1	0.0000
5	ER	220 KV Muzaffarpur Hajipur 1 220 KV Muzaffarpur KBUNL 2 220 KV Muzaffarpur Dhalkebar - 1 400/220 KV ICT 1 and 2 at Muzaffarpur	ISTS	28-Mar-20	18:49	28-Mar-20	20:00	1:11	At 18:49 hrs, 220 KV Muzaffarpur bus 1 tripped on LBB maloperation associated with 400/220 KV ICT 1 CB. Due to this, 220 KV Muzaffarpur Hajipur 1, 220 KV Muzaffarpur KBUNL 2, 220 KV Muzaffarpur Dhalkebar - 1, 400/220 KV ICT 1 and 2 at Muzaffarpur tripped.	0	0	GI-1	0.0000
6	ER	220 kV STPS – Chandil S/C 220 kV Ranchi – Chandil S/C 220 kV Ramchandrapur – Chandil S/C	JUSNL	29-Mar-20	19:21	29-Mar-20	19:45	0:24	At 19:21 hrs, R phase CT of 220 kV STPS bay of 220/132 kV Chandil s/s burst resulting tripping of all 220 kV feeders connected to Chandil S/S.	0	210	GD-1	0.0840

North Eastern Region-Grid Disturbances Report for March 2020

Sl. No.	Region	Name of Element	Owner / Agency	Date and Time of Tripping	Date and Time of Revival	Outage Duration	Event	Generation Loss (MW)	Load Loss (MW)	Generati on Loss in MU	Load Loss in MU	Category as per CEA Grid Standards
1	NER	132kV Mokokchung(PG) - Mokokchung(DoP Nagaland) I & II lines and 132 kV Doyang-Mokokchung line	POWERGRID & DoP,Nagaland	02-Mar-20 19:42	02-Mar-20 20:16	0:34:00	Mokokchung area of Nagaland Power System was connected with rest of NER Grid through 132kV Mokokchung(PG) - Mokokchung(DoP Nagaland) I & II Lines and 132 kV Doyang-Mokokchung(DoP Nagaland). At 19:42 Hrs on 02.03.2020, 132kV Mokokchung(PG) - Mokokchung(DoP Nagaland) I & II Lines and 132 kV Doyang-Mokokchung(DoP Nagaland) tripped. Due to tripping of these elements,Mokokchung area of Nagaland Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	15	0	0.009	GD 1
2	NER	132 kV Loktak- Ningthoukhong line and 132 kV Imphal - Ningthoukhong line	MSPCL	03-Mar-20 15:57	03-Mar-20 17:54	1:57:00	Ningthoukhong area of Manipur Power System was connected with rest of NER Grid through 132 kV Loktak- Ningthoukhong line and 132 kV Imphal - Ningthoukhong line (132 kV Kakching - Kongba line kept open to control over-loading of 132 kV Loktak- Ningthoukhong line) At 15:57 Hrs on 03.03.20, 132 kV Loktak- Ningthoukhong line and 132 kV Imphal - Ningthoukhong line tripped. Due to tripping of these elements, Ningthoukhong area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	17	0	0.033	GD 1
3	NER	132 kV Loktak- Ningthoukhong line	MSPCL	03-Mar-20 20:08	03-Mar-20 20:22	0:14:00	Ningthoukhong area of Manipur Power System was connected with rest of NER Grid through 132 kV Loktak- Ningthoukhong line(132 kV Imphal - Ningthoukhong line had been declared faulty after tripping at 15:57 Hrs on 03.03.20 and 132 kV Kakching - Kongba line kept open to control over-loading of 132 kV Loktak- Ningthoukhong line) At 20:08 Hrs on 03.03.20, 132 kV Loktak- Ningthoukhong line tripped. Due to tripping of this element, Ningthoukhong area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	44	0	0.0100	GD 1
4	NER	132 kV Karong-Kohima line and 132 Karong-Imphal(Yurembam) line	DoP Nagaland & MSPCL	06-Mar-20 16:14	06-Mar-20 16:30	0:16:00	Karong area of Manipur Power System was connected with the rest of NER Grid through 132 kV Karong-Kohima line and 132 Karong-Imphal(Yurembam) line. At 16:14 Hrs on 06.03.2020, 132 kV Karong-Kohima line and 132 Karong-Imphal(Yurembam) line tripped . Due to tripping of these elements, Karong area was separated from the rest of NER Grid and subsequently collapsed due to no source in this area.	0	13	0	0.0030	GD 1
5	NER	132 kV Dimapur(NA)-Dimapur(PG) I & II lines.	DoP, Nagaland	08-Mar-20 13:16	08-Mar-20 14:11	0:55:00	Dimapur area of Nagaland Power System was connected with the rest of NER Grid through 132 kV Dimapur(NA)-Dimapur(PG) I & II lines. At 13:16 Hrs on 08.03.2020, 132 kV Dimapur(NA)-Dimapur(PG) I & II lines tripped . Due to tripping of these elements, Dimapur area of Nagaland Power System was separated from the rest of NER Grid and subsequently collapsed due to no source in this area.	0	41	0	0.0380	GD 1
6	NER	132 kV Doyang-Sanis line and 132 Dimapur - Kohima line	POWERGRID and DOP, Nagaland	13-Mar-20 12:01	13-Mar-20 12:19	0:18:00	Kohima area of Nagaland Power System was connected with the rest of NER Grid through 132 kV Doyang - Sanis line and 132 Dimapur - Kohima line (132 kV Kohima - Karong Line was under planned Shutdown) At 12:01 Hrs on 13.03.2020, 132 kV Doyang - Sanis line and 132 Dimapur - Kohima line tripped. Due to tripping of these elements, Kohima area was separated from the rest of NER Grid and subsequently collapsed due to load generation mismatch in this area.	6	16	0.0018	0.0048	GD 1
7	NER	220 kV Samaguri - Sonabil-2 line, 220 kV Misa - Samaguri D/C line , 220kV Samaguri - Jawaharnagar line, 220kV Samaguri-Mariani(AS) line and 220 kV Samaguri-Sonapur line	AEGCL & POWERGRID	14-Mar-20 08:24	14-Mar-20 08:41	0:17:00	Samaguri area of Assam Power System was connected with rest of NER Grid through 220 kV Samaguri - Sonabil-2 line, 220 kV Misa - Samaguri D/C line , 220kV Samaguri - Jawaharnagar line, 220kV Samaguri-Mariani(AS) line and 220 kV Samaguri-Sonapur line (220 kV Samaguri-Sonabil -1 Line is out of service w.e.f. 12:14 Hrs of 07th August'18 due to Conductor Snapping between Tower Loc no w2 &w3 and w4 &w5 which falls in the middle of the river bramhaputra). At 08:24 Hrs on 14.03.2020, 220 kV Samaguri - Sonabil-2 line, 220 kV Misa - Samaguri D/C line , 220kV Samaguri - Jawaharnagar line, 220kV Samaguri-Mariani(AS) line and 220 kV Samaguri-Sonapur line tripped. Due to tripping of these elements, Samaguri area of Assam Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	95	0	0.0270	GD 1
8	NER	132 kV Loktak-Ningthoukhong line	MSPCL	14-Mar-20 12:11	14-Mar-20 12:29	0:18:00	Ningthoukhong area of Manipur Power System was connected with rest of NER Grid through 132 kV Loktak- Ningthoukhong line (132 kV Imphal - Ningthoukhong line was under planned shutdown and 132 kV Kakching - Kongba line was kept open to control over-loading of 132 kV Loktak- Ningthoukhong line) At 12:11 Hrs on 14.03.2020, 132 kV Loktak-Ningthoukhong . Due to tripping of these elements, Ningthoukhong area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	19	0	0.0060	GD 1
9	NER	132 kV Loktak-Ningthoukhong line	MSPCL	14-Mar-20 15:23	14-Mar-20 16:03	0:40:00	Ningthoukhong area of Manipur Power System was connected with rest of NER Grid through 132 kV Loktak- Ningthoukhong line (132 kV Imphal - Ningthoukhong line was under palned shutdown and 132 kV Kakching - Kongba line was kept open to control over-loading of 132 kV Loktak- Ningthoukhong line) At 15:23 Hrs on 14.03.2020, 132 kV Loktak-Ningthoukhong line tripped. Due to tripping of this element, Ningthoukhong area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	17	0	0.0050	GD 1
10	NER	132 kV Loktak - Ningthoukhong line & 132 kV Imphal - Ningthoukhong line	MSPCL	23-Mar-20 08:24	23-Mar-20 08:48	0:24:00	Ningthoukhong area of Manipur Power System was connected with rest of NER Grid through 132 kV Loktak- Ningthoukhong line and 132 kV Imphal - Ningthoukhong line(132 kV Kakching - Kongba line was kept open to control over-loading of 132 kV Loktak- Ningthoukhong line) At 08:24 Hrs on 23.03.2020, 132 kV Loktak - Ningthoukhong & Imphal-Ningthoukhong lines tripped. Due to tripping of these elements,Ningthoukhong area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	50	0	0.0200	GD 1
11	NER	132 kV Ranganadi - Ziro line	POWERGRID	26-Mar-20 15:18	26-Mar-20 15:28	0:10:00	Ziro area of Arunachal Pradesh Power System was connected with rest of NER Grid through 132 kV Ranganadi - Ziro line. At 15:18 Hrs on 26.03.2020, 132 kV Ranganadi - Ziro line tripped. Due to tripping of this element, Ziro area of Arunachal Pradesh Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	16	0	0.0030	GD 1
12	NER	Kohima area of Nagaland Power System & Karong Area of Manipur Power System	MSPCL & DOP Nagaland	29-Mar-20 12:48	29-Mar-20 13:12	0:24:00	Kohima area of Nagaland Power System & Karong Area of Manipur Power System were connected with the rest of NER Grid through 132 kV Wokha-Sanis line & 132 Imphal(Yurembam)-Karong Line (132 Dimapur - Kohima line faulty w.e.f. 20:48 Hrs on 28.03.20) At 12:48 Hrs on 29.03.2020, 132 kV Wokha - Sanis line and 132 Imphal(Yurembam)-Karong line tripped. Due to tripping of these elements, Kohima & Karong areas was separated from the rest of NER Grid and subsequently collapsed due to no source in this area.	0	19	0	0.0080	GD 1

North Eastern Region-Grid Incidences Report for March 2020

Sl. No.	Region	Name of Element	Owner / Agency	Date and Time of Tripping	Date and Time of Revival	Outage Duration	Event	Generation Loss (MW)	Load Loss (MW)	Generation Loss in MU	Load Loss in MU	Category as per CEA Grid Standards
1	NER	AGBPP Unit 6 & 9	NEEPCO	02-Mar-20 08:43	02-Mar-20 09:15	0:32:00	AGBPP Unit-6 & 9 tripped at 08:43 Hrs on 02-03-20 on Low fuel gas Pressure due to Strainer Choking . Revision done from Block No.38 on 02-03-20	40	0	0.020	0	GI 2
2	NER	AGBPP Unit 6 & 9	NEEPCO	06-Mar-20 05:38	06-Mar-20 06:15	0:37:00	AGBPP Unit-6 & 9 tripped at 05:38 Hrs on 06-03-20 due to High vibration in thrust vibration . Revision done from Block No.26 on 06-03-20	40	0	0.030	0	GI 2
3	NER	AGBPP Unit-2	NEEPCO	07-Mar-20 18:30	43897.80208	0:45:00	AGBPP Unit-2 tripped at 18:30 Hrs on 07-03-20 due to Tripping of Gas Boost Compressor. Revision done from Block No.78 on 07-03-20	29	0	0.020	0	GI 2
4	NER	AGBPP Unit 2	NEEPCO	10-Mar-20 08:55	10-Mar-20 09:45	0:50:00	AGBPP Unit-2 tripped at 08:55 Hrs on 10-03-20 due to CB-Mini Pressure Lock Out . Revision done from Block No.40 on 10-03-20	23.7	0	0.010	0	GI 2
5	NER	Palatana GTG-2 and STG-2	OTPC	10-Mar-20 18:49	10-Mar-20 19:30	0:41:00	Palatana GTG-2 tripped at 18:49 Hrs on 10-03-20 due to High Vibration in exiter bearing & subsequently STG-2 also tripped. Revision done from Block No.79 on 10-03-20	102	0	0.070	0	GI 2
6	NER	AGBPP Unit 2	NEEPCO	18-Mar-20 09:09	18-Mar-20 10:00	0:51:00	AGBPP Unit-2 tripped at 09:09 Hrs on 18-03-20 due to Tripping of Gas Compressor IV . Revision done from Block No.41 on 18-03-20	26.7	0	0.020	0	GI 2
7	NER	BgTPP Unit-2	NTPC	26-Mar-20 09:10	26-Mar-20 10:00	0:50:00	BgTPP Unit-2 tripped at 09:10 Hrs on 26-03-20 due to low drum oil level .Revision done from Block No.41 on 26-03-20	102	0	0.090	0	GI 2
8	NER	Loktak Unit 3	NHPC	26-Mar-20 17:30	26-Mar-20 18:15	0:45:00	Loktak Unit-3 tripped at 17:30 Hrs on 26-03-20 due to operation of buchotlz relay of GT. Revision done from Block No.74 on 26-03-20	35	0	0.030	0	GI 1
9	NER	BgTPP Unit-2	NTPC	28-Mar-20 03:21	28-Mar-20 04:15	0:54:00	BgTPP Unit-2 tripped at 03:21 Hrs on 28-03-20 due to flame failure .Revision done from Block No.18 on 28-03-20	68	0	0.220	0	GI 2
10	NER	Palatana GTG-2 and STG-2	OTPC	29-Mar-20 17:54	29-Mar-20 18:30	0:36:00	Palatana GTG-2 tripped at 17:54 Hrs on 29-03-20 due to High Exciter bearing temperature & subsequently STG-2 also tripped.Revision done from Block No.75 on 29-03-20	265	0	0.159	0	GI 2