

Northern Region-Grid Event Report for November 2019

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) 220kV Akal(RRVPNL)-Giral(RRVPNL) 2) 220kV Akal(RRVPNL)-Mada(RRVPNL) 3) 220kV Akal(RRVPNL)-Amarsagar(RRVPNL) 4) 400kV Akal(RRVPNL)-Ramgarh(RRVPNL) ckt-2 5) 500MVA CT 4 at 400/220kV Akal(RRVPNL) 6) 315MVA ICT 1 at 400/220kV Akal(RRVPNL) 7) 315MVA ICT 2 at 400/220kV Akal(RRVPNL)	Rajasthan	Rajasthan	1-Nov-19	11:16	1-Nov-19	12:13	00:57	As reported, R-phase jumper of 220kV Akal(RRVPNL)-Giral(RRVPNL) at Akal snapped & dropped at 220kV structure leading to tripping of all ICTs and associated below 220kV lines at 400/220kV Akal S/S. Due to this tripping, approx. 1200MW Wind generation loss was reported at 400/220kV Akal S/S. During the incident, 400kV Akal(RRVPNL)-Ramgarh(RRVPNL) ckt-2 also tripped. As per PMU data, Three phase fault with major voltage dip in R-phase is observed with delayed clearance of fault of ~1000ms.	1200		GD-1	
2	NR	1) 400kV Obra B(UP)-Rewa Road(UP) ckt-1 2) 240MVA ICT 3 at 400/220kV Obra B(UP)	Uttar Pradesh	Uttar Pradesh	2-Nov-19	10:50	2-Nov-19	12:22	79.55	As reported, 400kV Obra B(UP)-Rewa Road(UP) ckt-1 tripped on B-N fault, 84.8km from Obra(UP) end. At the same time, 240MVA ICT 3 at 400/220kV Obra B(UP) also tripped. As per PMU data, Y-N fault is observed in the system.			GI-2	
3	NR	1) 220kV Bhakra R(BBMB)-Jamalpur(BBMB) ckt-1 2) 220kV Bhakra R(BBMB)-Jamalpur(BBMB) ckt-2	Punjab	BBMB	3-Nov-19	6:18	3-Nov-19	07:33	01:15	As reported, 220kV Bhakra R(BBMB)-Jamalpur(BBMB) ckt-1 & 2 tripped on R-N fault. As per PMU, R-N fault with no autoreclosing is observed in the system.			GI-2	
4	NR	1) 400kV MuzaFarnagar(UP)-Ataur(UP) 2) 400kV MuzaFarnagar(UP)-Roorkee(PG) 3) 400kV MuzaFarnagar(UP)-Meerut(PG) 4) 400kV MuzaFarnagar(UP)-Vishnuprayag(UP) 5) 400kV MuzaFarnagar(UP)-Alaknanda(UP) 6) 315MVA ICT 1 at 400/220kV MuzaFarnagar(UP) 7) 315MVA ICT 2 at 400/220kV MuzaFarnagar(UP)	Uttar Pradesh	UP & POWERGRID	5-Nov-19	3:16	5-Nov-19	04:44	01:28	As reported, Y-N fault occurred in 400kV MuzaFarnagar(UP)-Ataur(UP). But breaker got stuck, LBB did not operate due to which all other 400kV feeders tripped in 23 from other end and all three 315MVA ICTs tripped on backup over current earth fault. However, power supply in MuzaFarnagar (400/220kV) Substation was uninterrupted through 220 kV networks. Total Generation loss is around 220 MW at Alaknanda(4X82.5 MW) & Vishnuprayag (1X110 MW) due to tripping of 400kV MuzaFarnagar(UP)-Vishnuprayag(UP) & 400kV MuzaFarnagar(UP)-Alaknanda(UP). As per PMU, Y-N fault followed by B-N fault with delayed clearance is observed in the system.	220		GD-1	
5	NR	1) 125MVAR Bus Reactor at 400/220kV Panchkula(PG) 2) 400kV Bus 1 at 400/220kV Panchkula(PG) 3) 400kV Panchkula(PG)-Abdullapur(PG) ckt-1	Haryana	POWERGRID	6-Nov-19	22:14	6-Nov-19	22:51	00:37	As reported, R-ph CT blasted in Tie bay of 125MVAR Bus Reactor at 400/220kV Panchkula(PG) leading operation of Bus Bar protection of 400kV Bus 1 at 400/220kV Panchkula(PG). At the same time, 400kV Panchkula(PG)-Abdullapur(PG) ckt-1 also tripped. As per PMU, R-N fault followed by B-N fault is observed in the system.	100		GI-2	
6	NR	1) 220kV Delina(JK)-Kishanganga(NHPC) ckt-1 2) 220kV Delina(JK)-Kishanganga(NHPC) ckt-2 3) 220kV Delina(JK)-Amargarh(NRSS29) 4) 110MW Unit#1 at 220kV Kishanganga(NHPC)	Jammu & Kashmir	NHPC and J&K	11-Nov-19	21:14	12-Nov-19	17:35	20:21	As reported, 220kV Delina(JK)-Amargarh(NRSS29) tripped due to B-N fault, 4km from Amargarh end. At the same time, Delina(JK)-Kishanganga(NHPC) ckt-1 & 2 also tripped. Unit#1 at 220kV Kishanganga(NHPC) tripped due to loss of evacuation path. As per PMU, B-N fault is observed in the system.			GD-1	
7	NR	1) 220kV Panki(UP)-Kanpur(PG) 2) 220kV Panki(UP)-RPH(UP) 3) 220kV Panki(UP)-Bithoor(UP) 4) 220kV Panki(UP)-Rania(UP) 5) 220kV Panki(UP)-Kanpur South(UP) 6) 220kV Panki(UP)-Chhibramau(UP) 7) 160MVA ICT at 220/132kV Panki(UP)	Uttar Pradesh	Uttar Pradesh	14-Nov-19	2:21	14-Nov-19	03:03	00:42	As reported, R phase CT of 160MVA ICT at 220/132kV Panki(UP) damaged leading to tripping of all 220kV lines emanating from 220kV Panki(UP). As per PMU, No fault is observed in the system.	100		GD-1	0.07
8	NR	1) 800kV HVDC Champa(PG)-Kurukshetra(PG) Pole-1 2) 800kV HVDC Champa(PG)-Kurukshetra(PG) Pole-2	Haryana	POWERGRID	17-Nov-19	14:18	17-Nov-19	15:37	01:19	As reported, 800kV HVDC Champa(PG)-Kurukshetra(PG) Pole-1 & 2 tripped at 1418Hrs. As per PMU, Fluctuations in phase voltages are observed in the system. In antecedent conditions, 800kV HVDC Champa(PG)-Kurukshetra(PG) Pole-1 & 2 carrying 250MW each.			GI-2	
9	NR	1) 220kV Shalimar Bagh(DTL)-Bawana(DTL) ckt-1 2) 220kV Shalimar Bagh(DTL)-Bawana(DTL) ckt-2 3) 315MVA ICT 4 at 400/220kV Mundka(DTL)	Delhi	Delhi	18-Nov-19	6:40	18-Nov-19	07:07	00:27	As reported, 220kV Shalimar Bagh(DTL)-Bawana(DTL) ckt-1 tripped due to Y-Phase jumper snap at tower no. 1. At the same time, 220kV Shalimar Bagh(DTL)-Bawana(DTL) ckt-2 also tripped. At 0651Hrs, 315MVA ICT 4 at 400/220kV Mundka(DTL) also tripped. As per PMU, R-B fault & R-Y fault are observed in the system. In antecedent conditions, 220kV Shalimar Bagh(DTL)-Bawana(DTL) ckt-1 & 2 carrying 169MW & 173MW respectively.	250		GD-1	0.11
10	NR	1) 765kV Agra(PG)-Gwalior(PG) ckt-1 2) 765kV Agra(PG)-Aligarh(PG) 3) 400kV Agra(PG)-Sikar(PG) ckt-1	Uttar Pradesh	POWERGRID	19-Nov-19	13:10	19-Nov-19	13:31	00:21	The sequence of events as captured in URTDSM are - At 13:09:08.600, 765 kV Agra-Fatehpur-1 manually opened from Fatehpur end. Line didn't tripped from Agra end. It resulted in MVAR injection towards Agra end and rise of 3 kv bus voltage at Agra station. At 13:10:22.600, L/R of 765 kV Agra-I at Fatehpur end was opened. It led to further increase in MVAR injection towards Agra end and Agra bus voltage rose to 813 kv from 806 kv. Here L/R at Fatehpur end was opened to convert it as B/R. At 13:10:27.720, after almost 5 seconds of outage of L/R at Fatehpur end, 765 kV Agra-Fatehpur-1, 765 kV Agra-Gwalior-I and 765 kV Agra-Aligarh tripped.			GI-2	
11	NR	1) 400 kv Lucknow_1(pg)-Unnao(Up) (pg) ckt-1 2) 400 kv Gorakhpur(pg)-Lucknow_1(pg) (pg) ckt-2	UTTAR PRADESH	POWERGRID, POWERLINK	24-Nov-19	14:10	24-Nov-19	16:38	02:28	R-phase to earth fault in 400 kv Lucknow (PG)-Unnao (UP) ckt-1, line A/R from Lucknow end but failed to A/R from Unnao end. During failure of A/R at Unnao end of 400 kv Lucknow-Unnao ckt-1, 400 kv Lucknow (PG)-Gorakhpur (PG) ckt-2 also tripped on over voltage protection from Gorakhpur PG end	0	0	GI-2	0
12	NR	1) 68.67 mw rampur hep - unit 6 2) 400 kv nathpa jhakri(sj)-rampur heps(sj) (pg) ckt-2 3) 400kv bus 2 at nathpa jhakri(sj) 4) 250 mw nathpa-jhakri hps - unit 2 5) 250 mw nathpa-jhakri hps - unit 3 6) 68.67 mw rampur hep - unit 1 7) 400 kv nathpa jhakri(sj)-karcham wangtoo(jsw) (hbpc) ckt-2	HIMACHAL PRADESH	JSW, POWERGRID, SJVNL	24-Nov-19	20:43	25-Nov-19	04:41	07:58	Multiple element tripping at 400kV Jhakri HEP due to operation of bus bar protection and further SPS operation at 400kV Jhakri HEP. During opening of 400 kv Karcham-Jhakri ckt-2, Karcham end breaker opened properly but Jhakri end breaker didn't open properly. After some duration R-phase breaker at Jhakri end failed and resulted into 400 kv bus bar protection operation at 400 kv bus-2 of Jhakri HEP. It further resulted into tripping of 400 kv Bus Coupler and 400kV lines i.e. NJ-Rampur-II & Unit#2 which were connected on the same bus bar - II. (NJ-Panchkula-II was already in open Condition). One unit of Rampur Hydro Power Station was also got tripped due to tandem operation. Consequences of tripping of two evacuation line from Jhakri HEP, Planned SPS (Case-3) at NJHPS initiated trip command to Unit#3 (Running) and Unit#5 (Stopped) at NJHPS and subsequently one Unit of Rampur Hydro.	600	0	GD-1	0
13	NR	1) 400 kv uri_2(nh)-wagoora(pg) (pg) ckt-1 2) 400kv Uri_2(nh)-Uri_1(nh) (PG) Ckt-1 3) 60 MW Uri-II HPS - UNIT 1 4) 60 MW Uri-II HPS - UNIT 2 5) 60 MW Uri-II HPS - UNIT 3 6) 60 MW Uri-II HPS - UNIT 4	J & K	NHPC, POWERGRID	27-Nov-19	09:07	27-Nov-19	10:04	00:57	During fault in 400 kv Uri2-Wagoora ckt, Uri-2 end breaker didn't operate. At the same time 400 kv Uri2-Uri1 ckt and all four running unit of Uri2 HEP tripped and resulted into generation loss of ~215MW. Complete station outage of 400 kv Uri2 HEP occurred during the incident. Energy loss was nil as there was no loss of water due to unit tripping	215	0	GD-1	0
14	NR	1) 400 kv neemrana(pg)-babal(rs) (pg) ckt-1, 2) 400 kv neemrana(pg)-dhanoda(hv) (gptl) ckt-1	RAJASTHAN	POWERGRID, RAJASTHAN, HARYANA	27-Nov-19	18:22	27-Nov-19	20:32	02:10	During fault in 400 kv Neemrana-Dhanoda ckt-1, 400 kv Neemrana-Babal ckt also tripped, which is on the other side of same dia. Reason of tripping of 400 kv Neemrana-Babal yet to be ascertained. As per PMU data it seems fault was in blue-phase and A/R also operated in 400 kv Neemrana-Dhanoda ckt-1. As per Rajasthan report, 400 kv Neemrana-Babal ckt tripped from Babal end on DT received from Neemrana end.	0	0	GI-2	
15	NR	1) 765kv bus 1 at agra(pg) 2) Main bay of 765 kv Agra PG (end)-Gwalior ckt-1	UTTAR PRADESH	POWERGRID	28-Nov-19	18:56	28-Nov-19	20:34	01:38	765 kv Bus bar protection operated at 765 kv Agra (PG)Bus-1. Main Bay of 765 kv Agra (end)-Gwalior ckt-1 was still under outage. Reason of bus bar protection operation yet to be ascertained	0	0	GI-2	0
16	NR	1) 220kV bus 1 at samaypur(BB), 220 kv 2) Faridabad(PG)-Samaypur(BB) (UNDEF) ckt-1, 3) 220kV Ballabgarh-Samaypur (BB) Ckt-2, 4) 220kV Ballabgarh-Samaypur (BB) Ckt-3, 5) 220kV Palwal(HV)-Samaypur(BB) (UNDEF) Ckt-1, 6) 220kV Samaypur(BB)-Badshahpur(HV) (UNDEF) Ckt-2, 7) 400/220 kv 500 MVA ICT 1 at Ballabgarh(PG), 8) 400/220 kv 500 MVA ICT 2 at Ballabgarh(PG), 9) 400/220 kv 500 MVA ICT 4 at Ballabgarh(PG), 10) 220 kv Samaypur(BBMB)-Palli ckt-2	HARYANA	BBMB, HYPNL, POWERGRID	30-Nov-19	15:05	30-Nov-19	16:45	01:40	Multiple element tripping at 220 kv Samaypur (BBMB) due to bus bar protection(LBB)operation of 220 kv bus-1 at 220 kv Samaypur (BBMB). At 15:04:00 of 30.11.2019, fault occurred on yellow phase of 220 kv Samaypur-FGPP ckt-1 (PGCL line) at a distance of 2.282 km in Zone-1. Fault current shown by relay is 36KA. Samaypur end Circuit Breaker could not clear the fault and its yellow phase burst and its LBB operated. Y phase LA also burst and isolator also got damaged. All the elements connected on 220 kv Bus -1 also tripped due to operation of LBB protection of 220 kv Samaypur (end)-Faridabad ckt-1	0	200	GD-1	0
17	NR	1) 400 kv Hapur-Dasna (up) ckt-2, 2) 400/220 kv 315 MVA ICT 1 at Dasna(UP), 3) 400/220 kv 315 MVA ICT 2 at Dasna(UP), 4) 400kv Bus 1 at Dasna(UP), 5) 400kV Hapur-Dasna (UP) Ckt-1	UTTAR PRADESH	UPPTCL	30-Nov-19	15:08	30-Nov-19	18:08	03:00	In antecedent condition 400 kv Bus-2 of Dasna (UP) was under outage. Bus Bar Protection operated at 400 kv Bus-1 of 400/220 kv Dasna (UP). It further resulted into tripping of all the connected elements namely 400 kv Hapur-Dasna ckt-1 & 2, 400/220 kv 315 MVA ICT-1 & 2 at 400 kv Dasna (UP)	0	36	GD-1	0.11

Western Region-Event Report for November 2019

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. 220 kV Korba(E)- Korba(W) 1&2 2.220 kV Korba(E)- Churri 1&2 3.220 kV Korba(E)- Budhipadar 2&3 4.220 kV Korba(E)- Raigarh 5.220 kV Korba(E)- Dardehi 6.220 kV Korba(E)- DSPM 7. 120 MW Korba(E) Units 5&6 8. 250 MW DSPM Unit 2	CSPTCL	1-Nov-19	13:14	1-Nov-19	14:19	01:05	At 220 kV Korba(E) station, due to failure of bus coupler bay all the elements connected to 220 KV Bus-1 and 220 KV Bus-2 tripped.	490	Nil	GD-1	Nil
2	WR	Tripping of 1.765/400 kV 1500 MVA Ektuni ICT 1 2.400 kV Ektuni - Bableswhar 2 3.400 kV Ektuni - Taptitanda 1	MSETCL	7-Nov-19	14:32	7-Nov-19	16:18	01:46	At 765/400 kV Ektuni s/s, 400 kV Ektuni-Taptitanda-1 Y phase Pole of CB blasted at Ektuni s/s and resulted in tripping of 400 kV Ektuni - Taptitanda 1, 400 kV Ektuni - Bableswhar 2 and 765/400 kV 1500 MVA Ektuni ICT 1.	Nil	Nil	GI-2	Nil
3	WR	Tripping of 1.400 kV Wardha Bus 1 2.400 kV Wardha-Akola 1	PGCIL	8-Nov-19	14:26	8-Nov-19	15:33	01:07	At 765/400 kV Wardha s/s, during A/R attempt of 400kV Wardha-Akola-1, R phase pole of main bay CB at Wardha end stucked up and resulted in tripping of 400kV Bus-1 on LBB operation.	Nil	Nil	GI-2	Nil
4	WR	Tripping of 1.400 kV Amreli Bus 1 2.400 kV Amreli- Chorania 1 3.400 kV Amreli- Jetpur 1 4.400/220 kV 315 MVA Amreli ICTs 2&3 5.400 kV 50 MVAR Bus reactor 1	GETCO	13-Nov-19	18:08	13-Nov-19	19:39	01:31	At 400/220 kV Amreli s/s, due to malfunction in external LBB Hard wiring scheme of 400/220KV ICT-3 Bay, all the elements connected to 400 kV Bus 1 tripped on LBB operation.	Nil	Nil	GI-2	Nil
5	WR	Tripping of 1.400 kV Indirasagar Bus 2 2.400 kV Indirasagar - Indore 2 3.400 kV Indirasagar - Satpura 1 4.Indirasagar Units 6&8	NHDC	13-Nov-19	01:05	13-Nov-19	02:49	01:44	At 400 kV ISP Hydro power station, 400 kV Bus-2 and all connected elements tripped on LBB operation while withdrawing unit-6(125MW) as per schedule.	250	Nil	GI-2	Nil
6	WR	Tripping of 1. 400 kV Nagothane - RGPPL 1&2 2.400 kV Nagothane - Padghe 1&2 3.400/220 kV Nagothane ICT 1,2&3	MSETCL	15-Nov-19	06:38	15-Nov-19	08:30	01:52	At 400/220 kV Nagothane s/s, 400 kV RGPPL ckt 1 R phase CT blasted and resulted in tripping of all the 400 kV elements on Bus 1&2.	Nil	Nil	GI-2	Nil
7	WR	Tripping of 1. 220 kV Badnawar-Badnagar 1&2 2.220 kV Badnawar- Kanwan 1&2 3.220 kV Badnawar- Ratlam 1&2 4.400/220 kV Badnawar ICT	MPPTCL	16-Nov-19	08:30	16-Nov-19	12:23	03:53	At 400/220 kV Badnawar s/s, due to sparking in R phase isolator jumper (220 KV side) of 400/220 KV ICT all the 220 kV elements connected to 220 kV Bus 1 and Bus 2 tripped.	Nil	Nil	GI-1	Nil
8	WR	Tripping of 1. 400 kV Asoj Bus 2 2.400 kV Asoj - Chorania 1&2 3.400 kV Asoj - Vadodara 2 4.400 kV Asoj - Indore 2 5.400 kV Asoj - Wanakbori 6.400/220 kV 500 MVA Asoj ICT 4	GETCO	20-Nov-19	16:37	20-Nov-19	17:17	00:40	At 400/220 kV Asoj s/s, a monkey jumped on R Phase earth switch dead weight of Bus 2. This led to the tripping of all the feeders of connected to 400 KV Bus 2 on Bus bar ptection operation.	Nil	Nil	GI-2	Nil
9	WR	Tripping of 1. 400 kV Charanka - Varsana 2.400 kV Charanka - APL Mundra 3.400 kV Charanka - Kansari 2 4.400 kV Charanka - Kansari 1	GETCO	27-Nov-19	13:36	27-Nov-19	16:12	02:36	At 400 kV Charanka s/s, due to the operation of 86A and 86 B relays (master trip relay) 400 kV Varsana, APL Mundra and Kansari 1&2 tripped at Charanka end only .	Nil	Nil	GI-2	Nil

Disclaimer : The Above details are based on the preliminary/flash report of the event and may change after finalisation of the detailed report.The quantum of load/generation loss is based on details given by SLDC and utility and may vary later with updated details.

Southern Region-Grid Event Report for November 2019

Sl. No.	Region	Name of Elements (Tripped/Manually opened)	Owner / Agency	Outage		Revival		Outage Duration Time	Event (As reported)	Generatio n Loss (MW)	Load Loss (MW)	Category as per CEA Grid Standards	Energy Unserviced (MU)
				Date	Time (Hrs)	Date	Time (Hrs)						
1	SR	i. 220kV Idukki - Kalamessary Line-1&2 ii. 220kV Idukki - Lower Periyar line-1&2 iii. 220kV Idukki - Udumalpet iv. 220kV Idukki - New Pallom v. 220/66kV Transformer vi. U#4 at Idukki	KSEB	3-Nov-19	15:05	3-Nov-19	17:44	2 hrs 39 mins	Complete loss of supply at 220kV Idukki GS of KSEB: Triggering incident was bus fault at Bus-2 of 220kV Idukki station. This led to operation of bus bar protection at Idukki resulting in complete loss of supply at Idukki station.	73 MW	13 MW	GD-1	0.03
2	SR	i. 220kV Areakode - Orkettary ii. 220kV Areakode - Kanhirode	KSEB	9-Nov-19	16:32	9-Nov-19	16:37	5 mins	Complete loss of supply at 220kV Kanhirode, 220kV Orkattery, 220kV Mylatty, 220kV Thaliparamba, 220kV Ambalathara: Triggering incident was fault at 220kV Areakode – Orkattery line. During the same time 220kV Areakode – Kanhirode line tripped on overload. This led to loss of supply at 220kV Kanhirode, 220kV Orkattery, 220kV Mylatty, 220kV Thaliparamba and 220kV Ambalathara.	----	350 MW	GD-1	0.03
3	SR	i. 230kV Neyveli - Karaikal ii. 220kV Karaikal - Bahour	Pondicherry	28-Nov-19	02:39	28-Nov-19	13:52	11 hrs 13 mins	Complete outage of 230/110kV Karaikal station: 230kV Neyveli-Karaikal line tripped at 01:52 hrs with Zone-1 Y Phase to earth fault. While test charging the 230kV karaikul-Neyveli line, Single line to ground fault occurred in the 230kV Karaikal-Bahour line and it tripped. This resulted in complete outage of 230kV karaikal station.	----	20 MW	GD-1	0.22
4	SR	i. 400kV Narnoor- Kurnool PG line-1&2 ii. 400kV Narnoor - Jamalamadugu line-1&2 iii. 400kV Narnoor - Gooty iv. 220kV Narnoor - Brahmankutkur	Andhra Pradesh	29-Nov-19	20:07	29-Nov-19	21:12	1 hr 5 mins	Complete loss of supply at 400/220kV Narnoor station: Triggering incident was fault in 400kV Narnoor - Srisailam line. LBB of Bus-1 operated and all elements connected to Bus-1 tripped. Since there was no other feed to Narnoor station, there was complete loss of supply at 400/220kV Narnoor station. In the antecedent, Main breaker of 400kV Narnoor-Srisailam was in lockout condition and 220kV Narnoor -Somyzulpalli line-1 &2 was in idle charged condition.	----	300 MW	GD-1	0.33
5	SR	i. 230kV Alamathy - OPG line-1 ii. 230kV Alamathy - NCTPS iii. 230kV Alamathy - Thiruverkadu iv. 400/230kV ICT-5 at Alamathy	TANTRANSCO	1-Nov-19	14:22	1-Nov-19	14:45	23 mins	Tripping of 230kV Bus-A at Alamathy, 400/230kV ICT-5 at Alamathy also tripped: While test charging the 230kV Manali - Alamathy line-2 LBB of operated due to low SF6 gas pressure in R-Phase limb of the circuit breaker. SF6 gas pressure had become 0Bar due to damage of the R-phase CB top cover.	----	----	GI-1	----
6	SR	i. 400/220kV, 315MVA, ICT-1 ii. 400/220kV, 315 MVA, ICT-2 iii. 400/220kV, 315 MVA, ICT-3	APTRANSCO	18-Nov-19	21:54	18-Nov-19	23:24	1 hr 30 mins	Tripping of Bus-2 at 400kV Vemagiri station: Triggering incident was failure of HV side B-phase lightning arrester of 315 MVA ICT-2 at Vemagiri. LBB of Bus-2 operated resulting in tripping of all elements connected to Bus-2.	----	----	GI-2	----
7	SR	i. 220kV Brahmapuram - Infopark ii. 220kV Brahmapuram - Cochin line-1&2 iii. 220kV Brahmapuram - Ambalamugal line 1&2 iv. 220kV Brahmapuram - Lower Periyar line-1	KSEB	26-Nov-19	09:04	26-Nov-19	10:09	1 hr 5 mins	Tripping of Bus-1 at 220kV Brahmapuram station: Bus bar protection of Bus-1 operated resulting in tripping of all elements connected to Bus-1 at 220kV Brahmapuram.	----	----	GI-1	----

Eastern Region-Grid Event Report for November 2019

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						
1	ER	220 kV Rangpo - New Mellii S/C 220 kV Jorethang - New Mellii - II	ISTS	4-Nov-19	14:18	4-Nov-19	14:35	00:17	220 kV Jorethang - New Mellii - I was under shutdown. At 14:18 hrs successful A/R occurred for 400 kV Kishangunj - Rangpo S/C on B-N fault (fault distance was 175.5 km from Kishangunj). At same time 220 kV Rangpo - New Mellii S/C and 220 kV Jorethang - New Mellii - II tripped resulting generation loss of 38 MW at Jorethang due to loss of evacuation path.	38	0	GD-I	0.0000
2	ER	400 kV Arambagh-New Chanditala 400 kV Arambagh-New PPSP D/C 400 kV Arambagh-Kolaghat 400 kV Arambagh-Bakreswar 220 kV Arambagh-Midnapore D/C 220 kV Arambagh-Domjur D/C 220 kV Arambagh-Rishra 220 kV Arambagh-New Bishnupur D/C 400/220 kV ICT 4 at Arambagh	WBSETCL	5-Nov-19	06:52	5-Nov-19	07:08	00:16	At Arambagh substation isolator got stuck while changing the isolator position and this leads to bus fault at 400 kV Bus. As CT supervision function (cable cut) blocked the bus bar protection, so bus bar protection did not clear the fault . All the lines tripped either from remote end on Zone-2/3 or in Zone 4 from Arambagh end. Also ICT 4 tripped from 220 kV side on directional over current.	0	104	GD-I	0.0277
3	ER	HVDC Talcher Kolar pole II	ISTS	5-Nov-19	10:55	5-Nov-19	13:11	02:16	HVDC Talcher Kolar pole I has been blocked at 10:55 Hrs on dtd 05.11.2019 due to "ESOF" from Kolar side resulting Pole 2 in metallic return mode. SPS operated at JITPL & GMR, subsequently generation reduce by 70MW & 150MW respectively. Power flow through HVDC Talcher Kolar reduced from 2000 MW to 1000 MW. After that JITPL & GMR increased their generation after bypassing SPS. SPS was taken into service at 13:35 and 13:53 hrs respectively	220	0	GI-II	0.0000
4	ER	220 kV Jorethang - New Mellii - D/C	ISTS	11-Nov-19	10:58	11-Nov-19	11:07	00:09	At 10:58 hrs successful A/R occurred for 400 kV Kishangunj - Rangpo S/C on Y-N fault. At same time 220 kV Jorethang - New Mellii D/C tripped only form Jorethang end resulting tripping of JLLHEP unit I due to loss of evacuation path	43	0	GD-I	0.0000
5	ER	400kV Teesta-III-Dikchu S/C 400kV Teesta-III-Kishangunj S/C	ISTS	25-Nov-19	15:38	25-Nov-19	15:57	00:19	During synchronization of unit 5 of Teesta III, breaker got stuck and bus I at Teesta III tripped resulting tripping of 400kV Teesta-III-Dikchu S/C. At same time 400kV Teesta-III-Kishangunj S/C also tripped resulting tripping of both the evacuating lines from Teesta III and leading to generation loss of 303 MW at Teesta III.	303	0	GD-I	0.0000
6	ER	400 KV Koderma-Biharsharif I 400 KV Koderma-Gaya I 400 KV Koderma-Bokaro I 315 MVA 400/220 kV ICT II at Koderma 50 MVA 400 kV Bus Reactor II at Koderma	DVC	26-Nov-19	05:56	26-Nov-19	07:16	01:20	At 05:56 Hrs, R phase shunt capacitor of GCB burst while synchronizing U#2 at Koderma, which is connected through Bus#1. Subsequently, all elements connected to bus I tripped and bus I became dead.	0	0	GI-II	0.0000
7	ER	132 KV Liliuah-Howrah Q/C 132 KV Southern-Howrah 132 KV Southern-Botanical-Howrah D/c	CESC	27-Nov-19	02:45	27-Nov-19	03:00	00:15	At 02:36 Hrs, 132 KV BUS PT at Liliuah S/s burst resulting tripping of 132 KV Liliuah-Howrah Q/C. At the time of incident, CESC system was synchronized to rest of the grid at Howrah point (132 KV Southern-Howrah, 132 KV Southern-Botanical-Howrah D/c) which got islanded as synchronization relay at Southern operated to disconnect CESC system from rest of the grid. CESC started running in island mode for 9 minutes. At 02:45 Hrs, when re-synchronization attempt was taken at Howrah, 2 running Units (U#1, U#3-264 MW generation) at BudgeBudge tripped, thereby around 260 MW load loss occurred in CESC area.	264	260	GD-I	0.0650
8	ER	220 KV Gaya Sonenagar D/C	BSPTCL	27-Nov-19	15:30	27-Nov-19	15:39	00:09	At 15:30 Hrs, 220 KV Gaya Sonenagar D/C tripped at Sonenagar end only due to DT receipt. No tripping was reported at gaya end. Load loss was at Aurangabad,Sonenagar and Japla	0	53	GD-I	0.0080

North Eastern Region-Grid Disturbances Report for November 2019

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	132 kV Agartala - Rokhia I and II Lines and 132 kV Palatana - Udaipur Line	TSECL	01-Nov-19 12:45	01-Nov-19 13:11	26 mins	Part of Tripura Power System was connected with rest of NER Grid through 132 kV Rokhia - Agartala I & II lines and 132 kV Palatana - Udaipur line. At 12:38 Hrs on 01.11.19, 132 kV Rokhia - Agartala I & II lines tripped . At 12:45 Hrs, 132 kV Palatana - Udaipur Line tripped on over loading. Due to tripping of these elements Monarchak , Udaipur , Rabindarnagar, Rokhia areas were separated from the rest of NER Grid and subsequently collapsed due to load generation mismatch.	151	26	0.254	0.011	GD 1
2	NER	132 kV Monarchak -Udaipur and 132 kV Udaipur-Palatana line	TSECL	09-Nov-19 20:58	09-Nov-19 22:41	1 hrs 43 mins	Udaipur area of Tripura Power System was connected with rest of NER Grid through 132 kV Monarchak - Udaipur line and 132 kV Udaipur-Palatana line. At 20:58 Hrs on 09.11.19, 132 kV Monarchak -Udaipur and 132 kV Udaipur-Palatana line tripped. Due to tripping of this element, Udaipur area of Tripura Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	21	0	0.036	GD 1
3	NER	132 kV Loktak-Ningthoukong line	MSPCL	11-Nov-19 16:00	11-Nov-19 16:18	18 mins	Ningthoukong area of Manipur Power System was connected with rest of NER Grid through 132 kV Loktak-Ningthoukong line. 132 kV Imphal - Ningthoukong line and 132 kV Kakching - Kongba line kept open for over-loading of 132 kV Loktak- Ningthoukong line. At 16:00 Hrs on 11.11.19, 132 kV Loktak- Ningthoukong line tripped. Due to tripping of this element, Ningthoukong area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	42	0	0.013	GD 1
4	NER	132 kV Ningthoukong-Loktak line	MSPCL	12-Nov-19 07:50	12-Nov-19 08:19	29 mins	Ningthoukong area of Manipur Power System was connected with rest of NER Grid through 132 kV Loktak-Ningthoukong line. 132 kV Imphal - Ningthoukong line and 132 kV Kakching - Kongba line kept open for over-loading of 132 kV Loktak- Ningthoukong line. At 07:50 Hrs on 12.11.19, 132 kV Loktak- Ningthoukong line tripped. Due to tripping of this element, Ningthoukong area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	40	0	0.019	GD 1
5	NER	132 kV Loktak- Ningthoukong line	MSPCL	16-Nov-19 03:10	16-Nov-19 03:30	20 mins	Ningthoukong area of Manipur Power System was connected with rest of NER Grid through 132 kV Loktak-Ningthoukong line. 132 kV Imphal - Ningthoukong line and 132 kV Kakching - Kongba line kept open for over-loading of 132 kV Loktak- Ningthoukong line. At 03:10 Hrs on 16.11.19, 132 kV Loktak- Ningthoukong line tripped. Due to tripping of this element, Ningthoukong 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	0.006	GD 1
6	NER	132 kV Silchar- Srikona D/C lines & 132 kV Srikona-Pailapool line	POWERGRID & AEGCL	16-Nov-19 13:58	16-Nov-19 14:05	7 mins	Srikona area of Assam Power System were connected with rest of NER Grid through 132 kV Silchar- Srikona D/C lines & 132 kV Srikona-Pailapool line. 132 kV Srikona - Panchgram line is under forced outage since 14-01-19 due to tower collapse. At 13:58 Hrs on 16.11.19, 132 kV Silchar- Srikona D/C lines & 132 kV Srikona-Pailapool line tripped. Due to tripping of these elements, Srikona area of Assam Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	51	0	0.006	GD 1
7	NER	132 kV Melriat(PG)-Zuangtui line	POWERGRID	16-Nov-19 16:50	16-Nov-19 16:56	6 mins	Zuangtui area of Mizoram Power System was connected with rest of NER Grid through 132 kV Melriat(PG)-Zuangtui line. At 16:50 Hrs on 16.11.19, 132 kV Melriat(PG)-Zuangtui line tripped. Due to tripping of this element, Zuangtui area was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	68	0	0.007	GD 1
8	NER	132 kV Loktak- Ningthoukong line	MSPCL	22-Nov-19 22:18	22-Nov-19 22:28	10 mins	Ningthoukong area of Manipur Power System was connected with rest of NER Grid through 132 kV Loktak-Ningthoukong line. 132 kV Imphal - Ningthoukong line and 132 kV Kakching - Kongba line kept open for over-loading of 132 kV Loktak- Ningthoukong line. At 22:18 Hrs on 22.11.19, 132 kV Loktak- Ningthoukong line tripped. Due to tripping of this element, Ningthoukong area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area.	0	23	0	0.004	GD 1
9	NER	132 kV Along - Daporijo line	DoP , AP	27-Nov-19 07:00	27-Nov-19 14:57	7 hrs 57 mins	Along area of Arunachal Pradesh Power System was connected with the rest of NER Grid through 132 kV Daporijo- Along line (Owner- DoP, Arunachal Pradesh). At 07:00 Hrs on 27.11.19, 132 kV Daporijo- Along line tripped. Due to tripping of this element, Along area was separated from the rest of NER Grid and subsequently collapsed due to no source in this area.	0	13	0	0.103	GD 1
10	NER	132 kV Doyang-Dimapur line I, 132 kV Doyang-Mokokchung(NG) line and 132 kV Doyang-Sanis line	POWERGRID & DoP Nagaland	30-Nov-19 18:16	30-Nov-19 18:34	18 mins	Doyang Power Station was connected with the rest of NER Grid through 132 kV Doyang-Dimapur line I, 132 kV Doyang-Mokokchung(NG) line and 132 kV Doyang-Sanis line. 132 kV Doyang-Dimapur line II was under planned shutdown. At 18:16 Hrs on 30.11.19, 132 kV Doyang-Dimapur line I, 132 kV Doyang-Mokokchung(NG) line and 132 kV Doyang-Sanis line tripped. Due to tripping of these elements, Doyang Power Station was separated from the rest of NER Grid and subsequently collapsed due to load generation mis-match.	46	0	0.0138	0	GD 1

North Eastern Region-Grid Incidences Report for November 2019

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	AGTCCPP Unit 2	NEEPCO	01-Nov-19 08:57	01-Nov-19 09:45	48 mins	AGTCCPP Unit-2 tripped at 08:57 Hrs on 01.11.2019 due to malfunction of control system.(Revision of schedule from Block No. 40 on 01.11.19)	20	0	0.016	0	GI 1
2	NER	AGTCCPP Unit-6	NEEPCO	05-Nov-19 22:18	05-Nov-19 23:15	57 mins	AGTCCPP Unit 6 tripped at 22:18 Hrs on 05.11.19 due to console trip (Revision of schedule from Block No 94 on 05.11.19)	19	0	0.020	0	GI 1
3	NER	AGTCCPP Unit-2	NEEPCO	14-Nov-19 11:33	14-Nov-19 12:15	42 mins	AGTCCPP Unit 2 tripped at 11:33 Hrs on 14.11.19 due to over current (Revision of schedule from Block No 50 on 14.11.19)	28	0	0.020	0	GI 1
4	NER	BgTTP Unit 3	NTPC	17-Nov-19 16:19	17-Nov-19 17:00	41 mins	BgTTP Unit 3 tripped at 16:19 Hrs on 17.11.19 due to flame failure (Revision of schedule from Block No 69 on 17.11.19)	136	0	0.093	0	GI 2
5	NER	AGTCCPP Unit 2	NEEPCO	23-Nov-19 16:55	23-Nov-19 17:30	35 mins	AGTCCPP Unit 2 tripped at 16:56 Hrs on 23.11.2019 due to AVR Problem. (Revision of schedule from Block No 71 on 23.11.2019).	21	0	0.120	0	GI 1
6	NER	Palatana unit -4	otpc	26-Nov-19 13:25	26-Nov-19 14:00	35 mins	Palatana Unit-4 tripped at 13:25 Hrs on 26-11-19 . Revision done from Block No.57 on 26-11-19	125	0	0.070	0	GI 2