

Details of Grid Events during the Month of March 2022 in Northern Region



Sl No.	Category of Grid Event (GI for 2/ GD-1 to GD-5)	Affected Area	Time and Date of occurrence of Grid Event	Time and Date of Restoration	Duration (HH:MM)	Loss of generation / loss of load during the Grid Event		% Loss of generation / loss of load w.r.t Antecedent Generation/Load in the Regional Grid during the Grid Event		Antecedent Generation/Load in the Regional Grid*		Brief details of the event (pre fault and post fault system conditions)	Elements Tripped
						Generation Loss(MW)	Load Loss (MW)	% Generation Loss(MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
1	GD-1	RAJASTHAN	06-Mar-2022 17:18	06-Mar-2022 19:50	2:32	195	0	0.539	0.000	36150	41810	220 KV Debari(RS)-RAPS_A(NP) (RS) Ckt-1, 220 KV RAPS_B(NP)-RAPS_A(NP) (RS) Ckt-1, 220 KV RAPS_A(NP)-Sakatpura(RS) (RS) Ckt-2 and 200 MW RAPS-A - UNIT 2 all tripped on bus bar differential protection operation at RAPS_A end. As per PMU, R-N phase to earth fault is observed. As per SCADA SOE, first 220 KV RAPS_B(NP)-RAPS_A(NP) (RS) Ckt-1 tripped from RAPS_B end followed by tripping of line from RAPS_A end and 220 KV Debari(RS)-RAPS_A(NP) (RS) Ckt-1, 220 KV RAPS_A(NP)-Sakatpura(RS) (RS) Ckt-2 from RAPS_A end. Further after approx. 20sec, 200 MW RAPS-A - UNIT 2 also tripped. In antecedent condition, 220 KV Debari(RS)-RAPS_A(NP) (RS) Ckt-1, 220 KV RAPS_B(NP)-RAPS_A(NP) (RS) Ckt-1, 220 KV RAPS_A(NP)-Sakatpura(RS) (RS) Ckt-2 and 200 MW RAPS-A - UNIT 2 were carrying 1095MW, 14MW, 5MW & 195MW respectively.	1) 220 KV Debari(RS)-RAPS_A(NP) (RS) Ckt-1 2) 220 KV RAPS_B(NP)-RAPS_A(NP) (RS) Ckt-1 3) 220 KV RAPS_A(NP)-Sakatpura(RS) (RS) Ckt-2 4) 200 MW RAPS-A - UNIT 2
2	GI-2	HARYANA	09-Mar-2022 21:18	09-Mar-2022 23:28	2:10	0	0	0.000	0.000	37513	44425	800 KV HVDC Kurukshetra(PG) Pole-3 & Pole-4 tripped from Champa end due to failure of MCCB of 220V DC supply system of Bipole-2. As per PMU, no fault is observed. In antecedent condition, 800 KV HVDC Kurukshetra(PG) Bipole was carrying approx. 350MW.	1) 800 KV HVDC Kurukshetra(PG) Pole-4 2) 800 KV HVDC Kurukshetra(PG) Pole-03
3	GD-1	UTTAR PRADESH	11-Mar-2022 13:55	11-Mar-2022 15:19	1:24	480	0	1.047	0.000	45856	47516	765 KV Anpara_C(LAN)-Unnao(UP) (UP) Ckt-1 tripped on B-N phase to earth fault. Line was successfully autoreclosed from Anpara_C end but tripped from Unnao end without A/R operation. At the same time, 400 KV Singrauli(NT)-Anpara(UP) (PG) Ckt-1 tripped on over current protection operation at Anpara end and 500 MW Anpara-D TPS - UNIT 1 tripped on SPS operation. As per PMU voltage at Anpara(UP), B-N phase to earth fault is observed and Line loading of 400KV Anpara-Singrauli ckt increased from 405MW to 1111MW after tripping of 765 KV Anpara_C(LAN)-Unnao(UP) (UP) Ckt-1. Due to this, 400 KV Singrauli(NT)-Anpara(UP) (PG) Ckt-1 tripped on over current protection operation at Anpara(UP) end. Further after 3 sec (as per SCADA SOE), 500 MW Anpara-D TPS - UNIT 1 tripped on SPS operation. Power reduction of approx. 250MW at each unit of Anpara C and approx. 90MW at Anpara D is also observed on SPS operation. In antecedent condition, 765 KV Anpara_C(LAN)-Unnao(UP) (UP) Ckt-1 and 400 KV Singrauli(NT)-Anpara(UP) (PG) Ckt-1 were carrying 1390MW & 405MW respectively. As per information received from CPCC-3 on telephonic communication, over current protection in 400 KV Singrauli(NT)-Anpara(UP) (PG) Ckt-1 has been disabled.	1) 400 KV Singrauli(NT)-Anpara(UP) (PG) Ckt-1 2) 765 KV Anpara_C(LAN)-Unnao(UP) (UP) Ckt-1 3) 500 MW Anpara-D TPS - UNIT 1
4	GD-1	RAJASTHAN	15-Mar-2022 14:15	15-Mar-2022 15:45	1:30	500	0	1.070	0.000	46712	49408	765 KV Khetri (PKTSL)-Jhatikara(PG) (PKTSL) Ckt-2 tripped on R-N phase to earth fault, fault distance was 145km from Jhatikara end. At the same time, 765 KV Bikaner(PG)-Khetri (PKTSL) (BKTL) Ckt-2 also tripped from Bikaner end only in 2.2 distance protection operation, fault distance was 272km from Bikaner end. As per PMU, successful A/R operation on R-V fault followed by 3-ph tripping on subsequent R-N fault is observed at Khetri end. As per SCADA, drop in solar generation of approx. 500MW is observed during the event. In antecedent condition, 765 KV Khetri (PKTSL)-Jhatikara(PG) (PKTSL) Ckt-2 and 765 KV Bikaner(PG)-Khetri (PKTSL) (BKTL) Ckt-2 were carrying 485MW & 1346MW respectively.	1) 765 KV Bikaner(PG)-Khetri (PKTSL) (BKTL) Ckt-2 2) 765 KV Khetri (PKTSL)-Jhatikara(PG) (PKTSL) Ckt-2
5	GI-2	NEW DELHI	15-Mar-2022 17:28	15-Mar-2022 18:47	1:19	0	0	0.000	0.000	40540	46380	400 KV Bannoli(DV)-Jhatikara(PG) (DTL) Ckt-2 tripped from Bannoli end only on DT received from Jhatikara end. At the same time, 400 KV Bannoli(DV)-Dwarka (PG) (PG) Ckt-1 also tripped from Dwarka end only on DT received from Bannoli end. As per the information received, tripping occurred due to PLCC maloperation. As per PMU, no fault is observed. In antecedent condition, 400 KV Bannoli(DV)-Jhatikara(PG) (DTL) Ckt-2 & 400 KV Bannoli(DV)-Dwarka (PG) (PG) Ckt-1 were carrying 444MW & 38MW respectively.	1) 400 KV Bannoli(DV)-Jhatikara(PG) (DTL) Ckt-2 2) 400 KV Bannoli(DV)-Dwarka (PG) (PG) Ckt-1
6	GD-1	J & K	15-Mar-2022 18:19	15-Mar-2022 18:44	0:25	110	0	0.266	0.000	41288	48562	During charging of 400 KV Dulhasti(NH)-Kishenpur(PG) (PG) Ckt-2, R-Y phase to phase fault followed by B-N fault occurred at Kishenpur end. On this fault, LBB of main CB of 400 KV Dulhasti(NH)-Kishenpur(PG) (PG) Ckt-2 Connected to bus-1 operated which resulted into tripping of all Main CBs connected to Bus-1. At the same time, 400/220 kv 315 MVA ICT 1 & ICT 2 at Kishenpur(PG) (connected to Bus-2) both tripped on back impedance protection operation. Due to tripping of ICTs, 400 KV Kishenpur-NewWanpoh (PG) Ckt-1 & 400 KV Dulhasti(NH)-Kishenpur(PG) (PG) Ckt-1 also tripped as they were connected to same bus with ICT-1 & ICT-2 respectively. As per PMU, R-Y phase to phase fault followed by B-N phase to earth fault with delayed clearance in 320ms is observed. As per SCADA, generation loss of approx. 110MW is observed at Dulhasti(NH), generation loss occurred due to loss of evacuating path. In antecedent condition, 400/220 kv 315 MVA ICT 1 & ICT 2 at Kishenpur(PG), 400 KV Kishenpur-NewWanpoh (PG) Ckt-1 and 400 KV Dulhasti(NH)-Kishenpur(PG) (PG) Ckt-1 were carrying 24MW, 24MW, 47MW & 108MW respectively.	1) 400 KV Dulhasti(NH)-Kishenpur(PG) (PG) Ckt-2 2) 400KV Bus 1 at Kishenpur(PG) 3) 400/220 kv 315 MVA ICT 2 at Kishenpur(PG) 4) 400/220 kv 315 MVA ICT 1 at Kishenpur(PG) 5) 400 KV Kishenpur-NewWanpoh (PG) Ckt-1 6) 400 KV Dulhasti(NH)-Kishenpur(PG) (PG) Ckt-1
7	GD-1	HIMACHAL PRADESH	17-Mar-2022 08:40	17-Mar-2022 10:29	1:49	245	0	0.562	0.000	43632	48021	Y-phase wave trap of 220 KV Jalandhar-Pong (BB) Ckt-1 at pong end got blasted. At the same time, 220 KV Bairasuli(NH)-Pong(BB) (PG) Ckt-1, 220 KV Jessore(HP)-Pong(BB) (PG) Ckt-1, 220 KV Jalandhar-Pong (BB) Ckt-1 & Ckt-2, 220 KV Pong(BB)-Dasuya(PS) (BBMB) Ckt-1 & Ckt-2 and 220KV Bus-1 at Pong(BBMB) all got tripped. 220 KV Pong(BB)-Dasuya(PS) (BBMB) Ckt-1 & Ckt-2 and 220 KV Jessore(HP)-Pong(BB) (PG) Ckt-1 tripped from Dasuya and Jessore end in 2.3 on RYB fault. At the same time, 66MW Unit-1, 2, 3 & 6 at Pong(BBMB) also tripped. As per PMU, R-Y three phase fault with delayed clearance in 1080ms is observed. As per SCADA, generation loss of approx. 245MW is observed at Pong HEP. In antecedent condition, 220 KV Bairasuli(NH)-Pong(BB) (PG) Ckt-1, 220 KV Jessore(HP)-Pong(BB) (PG) Ckt-1, 220 KV Jalandhar-Pong (BB) Ckt-1 & Ckt-2, 220 KV Pong(BB)-Dasuya(PS) (BBMB) Ckt-1 & Ckt-2 were carrying 45MW, 34W, 58MW, 58MW, 74MW & 74MW respectively.	1) 220 KV Jessore(HP)-Pong(BB) (PG) Ckt-1 2) 220 KV Jalandhar-Pong (BB) Ckt-2 3) 220 KV Jalandhar-Pong (BB) Ckt-1 4) 220 KV Pong(BB)-Dasuya(PS) (BBMB) Ckt-1 5) 220 KV Pong(BB)-Dasuya(PS) (BBMB) Ckt-2 6) 220 KV Bairasuli(NH)-Pong(BB) (PG) Ckt-1 7) 220KV Bus 1 at Pong(BB)
8	GD-1	HIMACHAL PRADESH	19-Mar-2022 21:08	20-Mar-2022 13:31	16:23	98	0	0.235	0.000	41634	48829	220 KV AD Hydro(AD)-Nallagarh(PG) (ADHPL) Ckt-1 and 220 KV Phozal(HP)-Nallagarh(PG) (ADHPL) Ckt-1 both tripped on R-N phase to earth fault as both the lines were on same tower, fault distance was 117km and 45km from Nallagarh and AD Hydro end respectively. During patrolling it was found that one tree from outside the ROW has broken due to heavy storm (on 19.03.2022 night) in between tower span no. 174- 175 and damaged the middle and bottom cross-arm of tower no. 175. With the tripping of above line, 96MW Unit-1 at AD Hydro HEP also tripped due to loss of evacuation path. As per PMU, multiple R-N fault is observed. As per SCADA, change in generation of approx. 98MW is observed at AD Hydro HEP. In antecedent condition, 220 KV AD Hydro(AD)-Nallagarh(PG) (ADHPL) Ckt-1 and 220 KV Phozal(HP)-Nallagarh(PG) (ADHPL) Ckt-1 were carrying 95MW & 27MW respectively.	1) 220 KV Phozal(HP)-Nallagarh(PG) (ADHPL) Ckt-1 2) 220 KV AD Hydro(AD)-Nallagarh(PG) (ADHPL) Ckt-1
9	GD-1	HARYANA	20-Mar-2022 17:01	20-Mar-2022 18:00	0:59	0	550	0.000	1.280	40973	42966	At 17:01 Hrs, CT of 220KV Gurgaon Sec 52-Gurgaon Sec 56 ckt-1 at Gurgaon Sec 52 end got damaged, resulted into three phase fault. On this fault, 220KV Gurgaon Sec 52-Gurgaon Sec 56 ckt-1 tripped from Gurgaon Sec 52 end instantaneously but tripped from Gurgaon Sec 56 end with delay of approx. 400ms. PLCC at both ends are not operational. During tripping of 220KV Gurgaon Sec 52-Gurgaon Sec 56 ckt-1 from Gurgaon Sec 56 end, B-ph CB got stuck which further led to LBB protection operation at Gurgaon Sec 56 end. Due to issue in Bus bar relay at Gurgaon Sec 56 end, 220KV Gurgaon Sec 72-Gurgaon Sec 56 ckt-1 & Ckt-2 and 220KV Pali-Gurgaon Sec 56 ckt-1 & Ckt-2 tripped from remote end. At the same time, 220KV Pali-Samaypur Ckt-1 & Ckt-2 tripped from Samaypur end and other 220KV feeders from 220KV Pali to Bakshapur, Palla and Gurgaon Sec 52 also tripped. As per PMU, R-Y-B three phase fault with delayed clearance in 480ms is observed. As per SCADA, change in load of approx. 550MW is observed in Haryana control area.	1) 220 KV Samaypur(BB)-Pallihivi (HVPNL) Ckt-2 2) 220 KV Samaypur(BB)-Pallihivi (HVPNL) Ckt-1

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						Generation Loss(MW)	Load Loss (MW)	% Generation Lost(MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
10	GD-1	J & K ; LADAKH	23-Mar-2022 20:11	23-Mar-2022 21:02	0:51	41	260	0.094	0.500	43469	52002	At 20:11 Hrs, 220kV Ziankote-Alusteng ckt-2 tripped on Y-B phase to phase fault during inclement weather condition, fault current was approx. 10kA. At the same time, 220kV Amargarh-Ziankote ckt-1&2 also tripped on same fault, fault distance and fault current recorded at Amargarh end was 27km & 2.7kA respectively. With the tripping of aforementioned lines, Ladakh region got isolated from J&K valley region. Further after approx. 30sec, 220kV Khaldist-Phyang(Lah) ckt tripped followed by tripping of 15 MW Unit-1&2 at Nimmo Bago and 11 MW Unit-2 at Chutak due to loss of evacuation path, which resulted into load loss of whole Ladakh region. As per PMU, Y-B phase to phase fault is observed. As per SCADA, change in demand of approx. 225MW in J&K valley region and approx. 35MW in Ladakh region is observed. As confirmed by NHPC, 41 MW generation loss occurred due to tripping of 15 MW Unit-1&2 at Nimmo Bago and 11 MW Unit-2 at Chutak. In antecedent condition, 220kV Amargarh-Ziankote ckt-1&2 were carrying 176MW each.	1) 220 KV Amargarh(NRSS XXX)-Ziankote(IK) (PDO JK) Ckt-2 2) 220 KV Amargarh(NRSS XXX)-Ziankote(IK) (PDO JK) Ckt-1
11	GD-1	RAJASTHAN	27-Mar-2022 09:26	27-Mar-2022 10:08	0:42	290	0	0.644	0.000	45045	44913	220 KV Fatehgarh_I(IPG)-AHEJL PSS HB_FGRAH_PG (AHEJL) (AHEJL) Ckt-1 tripped from AHEJL end on over current protection operation. As per PMU, no fault is observed. As per SCADA, solar generation loss of approx. 290MW is observed. In antecedent condition, 220 KV Fatehgarh_I(IPG)-AHEJL PSS HB_FGRAH_PG (AHEJL) (AHEJL) Ckt-1 was carrying approx. 294MW.	1) 220 KV Fatehgarh_I(IPG)-AHEJL PSS HB_FGRAH_PG (AHEJL) (AHEJL) Ckt-1
12	GD-1	RAJASTHAN	30-Mar-2022 10:12	30-Mar-2022 11:04	0:52	440	0	0.893	0.000	49257	52006	400 KV Suratgarh(RVUN)-Ratangarh(RS) (RS) Ckt-1 tripped on R-N phase to earth fault, fault distance was 137.5km and fault current was 2.6kA from Ratangarh end. At the same time, 400 KV Suratgarh SCTPS(RVUN)-Bikaner(RS) (RS) Ckt-1 & Ckt-2 both tripped on mal operation of Main-2 distance protection at Bikaner end and 660 MW Suratgarh SCTPS - UNIT 8 tripped due to tripping of turbine. As per PMU, R-N fault is observed. As per SCADA, change in generation of approx. 440MW is observed at Suratgarh SCTPS. In antecedent condition, 400 KV Suratgarh(RVUN)-Ratangarh(RS) (RS) Ckt-1, 400 KV Suratgarh SCTPS(RVUN)-Bikaner(RS) (RS) Ckt-1 & Ckt-2 all were carrying 543MW, 180MW & 180MW respectively.	1) 400 KV Suratgarh SCTPS(RVUN)-Bikaner(RS) (RS) Ckt-2 2) 400 KV Suratgarh SCTPS(RVUN)-Bikaner(RS) (RS) Ckt-1 3) 400 KV Suratgarh(RVUN)-Ratangarh(RS) (RS) Ckt-1 4) 660 MW Suratgarh SCTPS - UNIT 8
13	GD-1	UTTAR PRADESH	30-Mar-2022 21:55	30-Mar-2022 23:01	1:06	0	60	0.000	0.119	43837	50272	220 KV Baghat(PG)-Barot(UP) (UP) Ckt-1 & Ckt-2, 220KV Baraut-Muradnagar_New ckt, 220/132kV 200MVA ICT-1 at Baraut(UP) & 220/132kV 160MVA ICT-2 at Baraut(UP) all tripped due to bus bar protection operation at 220KV Baraut(UP). Bus bar protection operated on Y-PN bus fault which occurred due to Y-phase CT bias of 220kV Barot-Muradnagar ckt at Barot(UP) end. As per PMU, Y-N phase to earth fault is observed. As per SCADA, change in load of approx. 60MW is observed in UP control area. In antecedent condition, 220 KV Baghat(PG)-Barot(UP) (UP) Ckt-1 & Ckt-2, 220KV Baraut-Muradnagar_New ckt were carrying 27MW, 27MW & 87MW respectively.	1) 220 KV Baghat(PG)-Barot(UP) (UP) Ckt-2 2) 220 KV Baghat(PG)-Barot(UP) (UP) Ckt-1
14	GI-2	UTTAR PRADESH	31-Mar-2022 14:22	31-Mar-2022 16:41	2:19	0	0	0.000	0.000	50647	51909	400 KV Obra_B-Rewa Road (UP) Ckt-1 tripped on R-N phase to earth fault. At the same time, 400 KV Rewa Road-Panki (UP) Ckt-1 also tripped from Rewa Road end only on DT received from Panki end due to PLCC mal-operation at Panki(UP). As per PMU, R-N phase to earth fault and no auto-reclosing observed. In antecedent condition, 400 KV Obra_B-Rewa Road (UP) Ckt-1 & 400 KV Rewa Road-Panki (UP) Ckt-1 were carrying 243MW & 219MW respectively.	1) 400 KV Obra_B-Rewa Road (UP) Ckt-1 2) 400 KV Rewa Road-Panki (UP) Ckt-1
15	GI-2	NEW DELHI	31-Mar-2022 18:41	31-Mar-2022 22:53	4:12	0	0	0.000	0.000	42861	49304	400 KV Bannoli(DV)-Tughlakabad(PG) (DTL) Ckt-2 tripped on B-N phase to earth fault. At the same time, bus bar protection of 400KV Bus-2 at Bannoli(DV) also operated which led to tripping of all CB connected to 400KV Bus-2. Further after 300ms, 400/220 kV 500 MVA ICT 3 at Bannoli(DV) also tripped on over current protection operation. As per PMU, R-N phase to earth fault followed by B-N phase to earth fault is observed. In antecedent condition, 400 KV Bannoli(DV)-Tughlakabad(PG) (DTL) Ckt-2 & 400/220 kV 500 MVA ICT 3 at Bannoli(DV) were carrying 36MW & 126MW respectively.	1) 400KV Bus 2 at Bannoli(DV), 400 KV Bannoli(DV)-Tughlakabad(PG) (DTL) Ckt-2 2) 400/220 kV 500 MVA ICT 3 at Bannoli(DV)

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						Generation Loss(MW)	Load Loss (MW)	% Generation Loss(MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
1	GD-1	WR	04-Mar-22 12:27	04-Mar-22 13:16	0:49	148	-	0.002	-	65417	62009	At 12:27 Hrs/04.03.2022, 220kV Sardar Sarovar project (SSP) RBPH-CHPH -1 & 2 tripped on differential protection operation. Due to tripping of both the 220kV SSP RBPH-CHPH lines, there was no evacuation path available for CHPH generation which resulted in tripping of CHPH unit-1, 2, 3 & 5 (50 MW each). Generation loss of 148 MW was reported by Narmada Control Authority(NCA).	Tripping of 1.220 kV SSP RBPH- CBPH 1&2 2.50 MW SSP CHPH Units 1,2,3&5
2	GI-1	WR	08-Mar-22 01:08	08-Mar-22 02:46	1:38	-	183	-	0.003	56653	53174	At 01:08 Hrs/08-03-2022, fire took place in 66/11 kV 20 MVA Vapi(GI) ICT 2 due to which all four 220/66 kV Vapi (GI) ICTs tripped leading to loss of supply at 66 kV level at 220/66 kV Vapi-GI s/s. Also 220 kV Vapi-PG-Vapi line tripped from POWERGRID end on Zone-3 distance protection. Load loss of 183 MW at 66kV Vapi was reported by SLDC Gujarat.	Tripping of 1.220 kV Vapi- Vapi(PG) 2.220/66 kV Vapi ICTs 1,2,3&4
3	GI-2	WR	08-Mar-22 07:21	08-Mar-22 17:08	9:47	-	-	-	-	64464	59113	At 07:21 Hrs/08-03-22, While opening the Main bay of 765 kV Vadodara BR, bus bar protection operated and all the main bays connected to 765 kV Vadodara Bus 1 tripped due to B phase fault in 707 Main GIS CB (B phase).	Tripping of 1.765 kV Vadodara Bus 1
4	GD-1	WR	11-Mar-22 13:51	24-Mar-22 23:00	9:09	10	-	0.000	-	61838	61158	At 13:51 Hrs/11-03-2022, 220 kV Bhuj- Baranda tripped on B-E fault. As intimated by ASIPL, the line was tripped by miscreants by creating fault and OPGW was also damaged at two locations. There was a generation loss of 10 MW due to the event.	Tripping of 1.220 kV Bhuj- Baranda
5	GI-1	WR	13-Mar-22 14:08	13-Mar-22 14:45	0:37	-	250	-	0.004	59599	59364	At 14:08 Hrs/13-03-2022, 132 kV Raigarh- Gerwani 1 CB not tripped during Y-E fault and resulted in tripping of all the elements connected to 132 kV Raigarh Bus on backup protection operation. There was a load loss of around 250 MW due to the event.	Tripping of 1.220/132 kV Raigarh ICTs 2&3 2.132 kV Raigarh- Gerwani 1
6	GD-1	WR	14-Mar-22 12:33	14-Mar-22 12:35	0:02	483	-	0.007	-	67584	63142	At 12:33 Hrs/14-03-2022, 220 kV Dahanu- Versova tripped on over current protection operation. Prior to this tripping, other 220 kV lines connected with 220 kV Dahanu tripped on various faults. 220 kV Dahanu- Ghodbandar 1&2 tripped on Y-B phase fault at 12:10 Hrs and 12:30 Hrs respectively. At 12:32 Hrs, 220 kV Dahanu- Viraj tripped on B-E fault at Viraj end only on PDR operation & A/R successful at Dahanu end. At the same time, 220 kV Boisar- Viraj tripped at Boisar end on directional E/F protection operation(Ir = 649.4 A, Iy = 659.4 A, Ib = 407.8 A, In = 239.6 A). 250 MW Dahanu Units 1&2 tripped on over speed protection operation due to the loss of evacuation path. There was a generation loss of 483 MW due to the event.	Tripping of 1.220 kV Dahanu- Ghodbandar 1&2 2.220 kV Dahanu- Versova 3.220 kV Dahanu- Viraj 4.220 kV Boisar- Viraj 5.250 MW Dahanu Units 1&2
7	GD-1	WR	14-Mar-22 12:58	14-Mar-22 19:18	6:20	250	-	0.004	-	66474	63038	At 12:58 Hrs/ 14-03-2022, 220 kV Chorania- Avada line tripped on Y-B phase fault due to neem tree coming in induction zone in location 41&42. The tree cutting was done and the line restored at 19:18 Hrs. As reported by Gujarat SLDC, the delay in restoration was due to the ROW issue. 250 MW solar generation connected at Avada affected due to the event.	Tripping of 1.220 kV Chorania- Avada
8	GD-1	WR	14-Mar-22 13:14	14-Mar-22 14:47	1:33	570	-	0.009	-	65130	62521	At 13:14 Hrs/14-03-2022, 400 kV REGL- Kotra 1 tripped on B-E fault due to farm waste burning. The fault was cleared in Zone 2 protection operation from Kotra end, eventhough carrier was sent from REGL end. At the same time, 400 kV REGL- Kotra 2 tripped at REGL end only on TEED protection operation. As reported by REGL, insulation failure was identified at V&B phase cables of line 2 Main bay CT and the same got replaced. 660 MW REGL Unit 1 tripped on low forward power protection due to the loss of evacuation path. There was a generation loss of 570 MW due to the event.	Tripping of 1.400 kV REGL- Kotra 1&2 2.660 MW REGL Unit 1
9	GI-1	WR	15-Mar-22 01:10	15-Mar-22 01:38	0:28	-	135	-	0.002	63148	56948	At 01:10 Hrs/15-03-2022, Y Phase CT of 132kV Malanpur line failed at Mehgaon s/s. The fault was not cleared by the primary protection and resulted in tripping of 220 kV Mehgaon on Zone 3 DPR operation at Morena end and 220/132 kV ICTs & 132 kV lines on backup protection operation. As reported by MPPTCL, R phase CB pole of the 132kV Malanpur was also damaged during the event. There was a load loss of around 135 MW due to the event.	Tripping of 1.220 kV Mehgaon- Morena 2.220/132 kV Mehgaon ICTs 1&2 3. 132 kV lines and 132/33 kV ICTs at Mehgaon
10	GD-1	WR	15-Mar-22 15:31	15-Mar-22 16:15	0:44	-	936	-	0.015	67758	63454	At 15:31 Hrs/15-03-2022, While synchronizing 220 kV Raigarh CG- Korab (E) line at Korba (E) end, 220 kV Raigarh CG buses 1&2 tripped on LBB protection operation. 220 kV Raigarh CG- Korab (E) line had tripped at 14:28 Hrs on B-E fault. The line was charged successfully at Raigarh(CG) end at 15:30 Hrs and while taking load this event occurred. There was a load loss of 936 MW. 220kV Raigarh, Gerwani, Saraipali & Paraswani s/s and 132kV Raigarh, Gharghoda, Patthalgaon, Batauli, Kansabel, Jashpur, Ambikapur, Kondatarai, Sarangarh, Barankela, Basna, Sankra, Jhalap, Rajim s/s affected due to the event. As reported by CSPTCL, the event occurred due to mal operation of master trip relay of Korba(E) line due to struck auxiliary contact and the issue was attended by testing team.	Tripping of 1.220 kV Raigarh CG- Korab(E) 2.220 kV Raigarh CG- Raigarh PG 1,2&3 3.220 kV Raigarh CG- Saraipali 1&2 4.220 kV Raigarh CG- Gerwani 5.220 kV Raigarh CG- JSPL 1&2 6.220/132 kV Raigarh CG ICT 1,2&3



Details of Grid Events during the Month of March 2022 in Western Region

Sl.No.	Category of Grid Event (GI 1or 2/ GD-1 to GD-5)	Affected Area	Time and Date of occurrence of Grid Event	Time and Date of Restoration	Duration (HH:MM)	Loss of generation / loss of load during the Grid Event		% Loss of generation / loss of load w.r.t Antecedent Generation/Load in the Regional Grid during the Grid Event		Antecedent Generation/Load in the Regional Grid*		Brief details of the event (pre fault and post fault system conditions)	Elements Tripped
						Generation Loss(MW)	Load Loss (MW)	% Generation Loss(MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
11	GD-1	WR	16-Mar-22 15:04	16-Mar-22 16:07	1:03	270	600	0.004	0.009	69938	63258	At 15:04 Hrs/16-03-2022, 400 kV Gandhar- Hazira 1&2 tripped during the bus bar protection replacement work at Gandhar end. As reported by AMNSIL, 125 MW EHPL Unit 2 successfully islanded and catered critical load of 100 MW. There was a load loss of 600 MW & internal generation loss of 270 MW due to the event.	Tripping of 1.400 kV Gandhar- Hazira 1&2
12	GI-1	WR	19-Mar-22 06:53	19-Mar-22 08:54	2:01	175	-	0.003	-	60314	54554	At 06:53 Hrs/19-03-2022, 220 kV APL Mundra Bus1 and all the conncted elements tripped on B-E fault on busbar protection operation. As reported by APL, heavy fog was observed during the tripping and there was no abnormality found after switchyard inspection. 330 MW APL Mundra Unit 1 tripped due to loss of evacuation path. There was a generation loss of 175 MW due to the event.	Tripping of 1.220 kV APL- Nani khakar 1 2.220 kV APL- Tappar 1 3.220 kV APL- FGD 1 4.330 MW APL Mundra Unit 1
13	GD-1	WR	19-Mar-22 13:38	19-Mar-22 16:03	2:25	138	-	0.002	-	64908	59669	At 13:38 Hrs/19-03-2022, 220 kV Bhuj- Dayapar 2 tripped at Bhuj end on Y-E fault. The fault was not cleared at Dayapar end and the line tripped at Dayapar end on LBB protection operation. Due to loss of evacuation path, 138 MW generation loss occurred at Inox Wind Power plant.	Tripping of 1.220 kV Bhuj- Dayapar 2 2.220/33 kV Dayapar ICT 1,2&3
14	GI-2	WR	19-Mar-22 18:01	19-Mar-22 18:30	0:29	-	-	-	-	61829	55560	At 18:01 Hrs/19-03-2022, While charging 400 kV Karad- Kolhapur 1, LBB operated and all the elements connected to 400 kV Karad Bus 2 tripped. As reported by MSETCL, "NO" contact of Y phase current measuring unit of LBB relay shorted and while closing CB, DC +ve signal extended to LBB timer. Y phase current mesuring unit of LBB relay of 400 kV Kolhapur 1 was replaced.	Tripping of 1.400 kV Karad- Kolhapur 1 2.400 kV Karad- New Koyna 2 3.400 kV Karad- Jaigad 2 4.400/220 kV Karad ICTs 1&2
15	GI-1	WR	21-Mar-22 02:53	21-Mar-22 04:13	1:20	454	-	0.007	-	63783	56635	At 02:53:10 Hrs/21-03-2022, 220 kV APL Mundra Bus1 and all the connected elements tripped on B-E fault on busbar protection operation. At 02:53:39 Hrs, 220 kV APL- Nani Khakar 2 connected to 220 kV Bus 2 tripped on R-E fault due to fault in transmission line. At 02:54:03 Hrs, 220 kV APL Mundra Bus3 and all the conncted elements tripped on B-E fault on busbar protection operation. At 03:02 Hrs, Unit#3 (connected with 400 kV Switchyard) tripped due to loss of critical auxiliaries as ST#3 tripped during Bus-3 busbar operation. Few critical drives was being fed from ST-3 at that time. As reported by APL, Heavy fog was observed & 220 kV Tappar 1 B phase insulator string near 220 kV Bus 1 found broken. There as a generation loss of 630 MW due to the event.	Tripping of 1.220 kV APL- Nani khakar 1&2 2.220 kV APL- Tappar 1 3.330 MW APL Mundra Unit 1&3 4.400/220 kV APL Mundra ICT 1
16	GD-1	WR	22-Mar-22 14:46	22-Mar-22 20:15	5:29	85	-	0.001	-	67100	61786	At 14:46 Hrs/22-03-2022, 220 kV Bhuj- Dayapar 2 tripped at Dayapar end only on LBB protection operation. Due to loss of evacuation path, 85 MW generation loss occurred at Inox Wind Power plant. As intimated by INOX, B phase CVT neutral connection found loose and the same was rectified on 23-03-2022.	Tripping of 1.220 kV Bhuj- Dayapar 2 2.220/33 kV Dayapar ICT 1,2&3
17	GD-1	WR	23-Mar-22 16:27	23-Mar-22 22:34	6:07	142	-	0.002	-	67522	61352	At 16:27 Hrs/23-03-2022, 220 kV Bhuj- Dayapar 2 tripped at Dayapar end only on LBB protection operation. Due to loss of evacuation path, 142 MW generation loss occurred at Inox Wind Power plant. As intimated by INOX, B phase CVT neutral connection found loose and the same was rectified after the event.	Tripping of 1.220 kV Bhuj- Dayapar 2 2.220/33 kV Dayapar ICT 1,2&3
18	GD-1	WR	26-Mar-22 16:13	26-Mar-22 16:32	0:19	-	700	-	0.012	64996	60416	At 16:13 Hrs/26-03-2022, 220KV Gurur S/S became dead due to blasting of R-Phase Insulator of transfer bus Isolator of 160 MVA 220/132KV Gurur ICT-1. This resulted in total interruption of 132KV level at Ruabandha, Sarona, Kanker, Nagari, Gunderdehi, Balod, Dallirajhara, Charama, Bhanupratappur, Pakhanjur, Dhantari, Kurud, Rajim, Gariyaband, Magarlod S/S's. Load loss of around 700 MW reported by SLDC Chhattisgarh.	Tripping of 1.220 kV Gurur- Kurud 1&2 2.220 kV Gurur- Bhlai 1&2 3.220/132 kV Gurur ICTs 1,2,3&5 4.132 kV lines at Gurur
19	GD-1	WR	30-Mar-22 14:46	30-Mar-22 16:06	1:20	4	-	0.000	-	67379	63313	At 14:46 Hrs/ 15-03-2022, 220 kV Bhuj- Nana Valka (Alfanar) tripped at Nana Valka end only and A/R successfully at Bhuj end on B-E fault. There was a generation loss of 4 MW at Alfanar Wind Power plant	Tripping of 1.220 kV Bhuj- Nana Valka (Alfanar)
20	GI-1	WR	30-Mar-22 15:33	30-Mar-22 17:03	1:30	-	-	-	-	69196	63630	At 15:33 Hrs/30-03-2022, 220 kV Bus-1 & 2 at Wardha PG tripped on Y-B phase fault on busbar protection operation. As intimated by PGCL, flashover at 204 bay 89B Isolator B phase arm was observed. Fault was between Y phase of Bus 2 and B phase of Bus 1 which resulted in operation of bus bar protection in both the buses.	Tripping of 1.400/220 kV Wardha PG ICTs 1,2&3 2.220 kV Wardha PG- Wardha(MH) 3.220 kV Wardha PG- Badnera 4.220 kV Wardha PG- Pusad 5.220 kV Wardha PG- Bhugaon

Details of Grid Events during the Month of March 2022 in Southern Region



Sl No.	Category of Grid Event (GI for 2/ GD-1 to GD-5)	Affected Area	Time and Date of occurrence of Grid Event	Time and Date of Restoration	Duration	Loss of generation / loss of load during the Grid Event		% Loss of generation / loss of load w.r.t Antecedent Generation/Load in the Regional Grid during the Grid Event		Antecedent Generation/Load in the Regional Grid		Brief details of the event (pre fault and post fault system conditions)	Name of Elements (Tripped/Manually opened)
						Generation Loss(MW)	Load Loss (MW)	% Generation Loss(MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
1	GD-1	Andhra Pradesh	03-Mar-22 01:14	03-Mar-22 01:29	15 mins	0	500	0.00%	0.95%	48596	52667	Complete Outage of 220kV/132kV/33kV Bhimadole SS, 220kV/132kV/33kV Pallantla SS, and 220kV/11kV Pattiseema SS of APTRANSCO: During antecedent conditions, 220kV Bhimadole-Vijeswaram line, 220kV Nidadavolu-Pallantla-1 were under open condition and 220kV/11kV Pattiseema SS was radially fed from 220kV/132kV/33kV Pallantla SS. At 13:08 hrs, 220kV Nunna- Bhimadole tripped due to phase-phase fault and this led to the radial operation of 220kV/132kV/33kV Bhimadole SS from 220kV/132kV/33kV Pallantla SS. At 13:14hrs, 220kV Nidadavolu-Pallantla line-2 was hand tripped due to heavy sparks observed in clamps of the isolator to breaker. This led to complete outage of 220kV/132kV/33kV Bhimadole SS, 220kV/132kV/33kV Pallantla SS, and 220kV/11kV Pattiseema SS.	1. 220kV Nunna- Bhimadole 2. 220kV Nidadavolu-Pallantla line-2
2	GD-1	Kerala and Karnataka	13-Mar-22 13:20	13-Mar-22 14:38	1hr 18mins	0	79	0.00%	0.15%	46344	51930	Complete Outage of 220kV/66kV/11kV Kaniyampeta SS of KSEB and Multiple trippings at 220kV/66kV kadakola SS and 220kV/66kV Hootagalli SS of KPTCL: During antecedent conditions, there was bus split operation at 220kV/66kV Kadakola SS and 220kV/66kV Hootagalli SS because of which, part of 220kV/66kV Kadakola SS and 220kV/66kV Hootagalli SS were radially fed from 220kV/66kV Kaniyampeta SS. At Kadakola SS, 220kV Kadakola Kaniyampeta line and 220kV Kadakola Hootagalli lines were connected to 220kV Bus-2. At Hootagalli SS, 220kV Kadakola Hootagalli line and a 100MVA Transformer were connected to 220kV Bus-2. As per the report submitted, triggering incident was R-N fault in 220kV Kunnamangalam Kaniyampeta line and line got tripped. Tripping of this line resulted in complete outage of 220kV/66kV/11kV Kaniyampeta SS and this further resulted in de-energisation of 220kV Bus-2 of 220kV/66kV kadakola SS and 220kV Bus-2 of 220kV/66kV Hootagalli SS.	220kV/220kV Kunnamangalam Kaniyampeta
3	GD-1	Karnataka	15-Mar-22 12:30	15-Mar-22 13:22	52mins	116	216	0.23%	0.38%	49534	56763	Complete Outage of 220kV/66kV Hiriyur_Kar SS of KPTCL: During antecedent conditions, 220kV Hiriyur_Kar was under single bus operation due to new bay construction works. Triggering incident was operation of end zone protection in 220kV Bus due to suspected maloperation of CB auxiliary contact. This resulted in tripping of all elements connected to 220kV Bus and complete outage of 220kV/66kV Hiriyur_Kar SS.	1. 220kV Hiriyur_Kar Gowribidanur line 2. 220kV Hiriyur_Kar Hiriyur_PG line 3. 220kV Hiriyur_Kar Thalak line 4. 220kV Hiriyur_Kar Azure line 5. 220kV Hiriyur_Kar Enarcion line
4	GD-1	Karnataka	15-Mar-22 14:33	15-Mar-22 15:00	27mins	542	122	1.15%	0.22%	47259	54862	Complete Outage of 220kV/110kV Ghataprabha SS, 220kV/110kV Athani SS, 220kV/110kV Chikkodi SS, 220kV/110kV Mugalkod SS, 220kV/110kV Kudachi SS, 220kV/110kV Mahalingapura SS and 220kV/110kV Vajramatti SS of KPTCL: As per the report submitted, the triggering incident was YBN fault in 220kV Mahalingapura Vajramatti line-2. Fault was sensed in Zone-1 at both the ends (Fault distance- 23.3km from 220kV Mahalingapura end and 10.33km from 220kV Vajramatti end). But breakers didn't open at both the ends. At 220kV Mahalingapura SS, LBB operated resulting in the tripping of all the connected elements. At 220kV Vajramatti SS, LBB not operated and fault was cleared by the tripping of 220kV Vajramatti Kudgi lines and 220kV Vajramatti Bagalkot lines on operation of Zone-3 distance protection. This resulted in complete outage of 220kV/110kV Mahalingapura SS and 220kV/110kV Vajramatti SS. Due to tripping of 220kV Mahalingapura connected lines, 220kV/110kV Athani SS, 220kV/110kV Kudachi SS, 220kV/110kV Chikkodi SS, 220kV/110kV Mugalkod SS and 220kV/110kV Ghataprabha SS were radially fed from 400kV/220kV Narenda_PG SS. Since 220kV Narenda_PG-Gataprabha line-2 was already under LC for maintenance work, after the tripping of 220kV Mahalingapura connected lines, 220kV Narenda_PG-Gataprabha line-1 got overloaded and tripped on operation of power swing protection at 220kV Narenda_PG end. This resulted in complete loss of supply at 220kV/110kV Athani SS, 220kV/110kV Kudachi SS, 220kV/110kV Chikkodi SS, 220kV/110kV Mugalkod SS and 220kV/110kV Ghataprabha SS. At the same time, 220kV Bagalkot Gadag lines tripped only at Gadag end.	(1). 220kV Vajramatti Bagalkot lines (2). 220kV Vajramatti Kudgi lines (3). 220kV Narenda_PG-Gataprabha line-1 (4). 220kV Bagalkot Gadag lines
5	GD-1	Andhra Pradesh	16-Mar-22 10:27	16-Mar-22 11:40	1hr 13mins	229	0	0.46%	0.00%	49490	57935	Complete Outage of 220kV/66kV NP Kunta SS of APSPCL : During antecedent conditions, 220kV NP Kunta PSS_4 NP Kunta line-1 was under maintenance. As per the report submitted, triggering incident was YB fault in 220kV NP Kunta PSS_4 NP Kunta line-2 and the line got tripped. Tripping of only connected line resulted in loss of evacuation and complete outage of 220kV/66kV NP Kunta PSS_4.	1. 220kV NP Kunta PSS_4 NP Kunta line-2
6	GD-1	Karnataka	16-Mar-22 13:29	16-Mar-22 13:59	30mins	150	302	0.31%	0.54%	48605	56029	Complete Outage of 220kV/66kV Hiriyur_Kar SS of KPTCL: During antecedent conditions, 220kV Hiriyur_Kar was under single bus operation due to new bay construction works. Triggering incident was operation of end zone protection in 220kV Bus due to suspected maloperation of CB auxiliary contact. This resulted in tripping of all elements connected to 220kV Bus and complete outage of 220kV/66kV Hiriyur_Kar SS.	1. 220kV Hiriyur_Kar Gowribidanur line 2. 220kV Hiriyur_Kar Hiriyur_PG line 3. 220kV Hiriyur_Kar Thalak line 4. 220kV Hiriyur_Kar Azure line 5. 220kV Hiriyur_Kar Enarcion line
7	GD-1	Karnataka	17-Mar-22 12:14	17-Mar-22 12:27	13mins	450	0	0.90%	0.00%	50164	57876	Complete Outage of 220kV/66kV HAL SS, 220kV/66kV Nimhans SS, 220kV/66kV EDC SS, 220kV/66kV Koramangala SS, and Multiple Tripping in 220kV/66kV A Station of KPTCL : Due to outage of 220kV Kormanagala HSR UG cable and Bus split operation at 220kV A Station, 220kV/66kV HAL SS, 220kV/66kV Nimhans SS, 220kV/66kV EDC SS, 220kV/66kV Koramangala SS were radially fed from 400kV/220kV Hoody SS. As per the report submitted, the triggering incident was fault in 220kV Hoody HAL line-1 and 2. Due to tripping of the source feeders, there was a complete loss of supply at 220kV/66kV HAL SS, 220kV/66kV Nimhans SS, 220kV/66kV EDC SS, 220kV/66kV Koramangala SS, and de-energization of 220kV Bus-1 at 220kV/66kV A Station.	220kV Hoody HAL line-1 and 2.
8	GD-1	Karnataka	19-Mar-22 16:41	19-Mar-22 16:49	8mins	150	0	0.36%	0.00%	41336	51950	Complete Outage of 220/66kV Vajamangala SS and 220/66 kV TK Halli SS of KPTCL: During antecedent conditions, 220kV TK Halli Hebbani Line-1&2, and 220kV TK Halli Kanakapura line were under shutdown. Because of this, 220/66 kV TK Halli SS was radially fed from 220/66kV Vajamangala SS which was further radially connected to 220kV Hootagalli SS. As per the report submitted, triggering incident was YB fault in 220kV Hootagalli Vajamangala line and the line got tripped resulting in power supply failure to 220/66kV Vajamangala SS and 220/66 kV TK Halli SS.	220kV Hootagalli - Vajamangala line
9	GD-1	Karnataka	21-Mar-22 20:11	21-Mar-22 21:09	58 mins	124	0	0.30%	0.00%	41473	45568	Complete Outage of 220kV/66kV KHWP SS, 220kV/66kV Begur SS and 220kV/66kV Hoskote SS of KPTCL: During antecedent conditions, 220kV Begur Hoody line, 220kV Hoskote Malur line and 220kV Hoskote Hoody line were under outage. Because of this, 220kV/66kV Begur SS and 220kV/66kV Hoskote SS were radially fed from 220kV/66kV KHWP SS. As per the report submitted, triggering incident was YB fault in 220kV Devanahalli KHWP line-1 due to heavy wind. At the same time, 220kV Devanahalli KHWP line-2 tripped on over current protection. Tripping of both these lines resulted in complete outage of 220kV/66kV KHWP SS which further resulted in complete outage of 220kV/66kV Begur SS and 220kV/66kV Hoskote SS.	220kV Devanahalli KHWP-1&2

Details of Grid Events during the Month of March 2022 in Southern Region



Sl No.	Category of Grid Event (GI for 2/ GD-1 to GD-5)	Affected Area	Time and Date of occurrence of Grid Event	Time and Date of Restoration	Duration	Loss of generation / loss of load during the Grid Event		% Loss of generation / loss of load w.r.t Antecedent Generation/Load in the Regional Grid during the Grid Event		Antecedent Generation/Load in the Regional Grid		Brief details of the event (pre fault and post fault system conditions)	Name of Elements (Tripped/Manually opened)
						Generation Lost(MW)	Load Loss (MW)	% Generation Loss(MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
10	GD-1	Karnataka	28-Mar-22 14:04	28-Mar-22 14:52	48mins	940	333	1.90%	0.57%	49406	58326	Complete Outage of 220kV Nagheri PH, 220kV Kadra PH, 220kV Kodalalli PH and 110kV Supa PH of KPCL, 220kV/110kV Narendra_Kar SS, 220kV/110kV Belgaum SS, 220kV/110kV Ambewadi SS, 220kV/110kV Karwar SS, 220kV/110kV Bidnal SS, 220kV/110kV Indal SS, and 220kV/110kV Hubli SS of and 220kV/110kV Harthi SS of KPCL. During antecedent conditions, 220kV Hubli Sirsi Line-1&2, 220kV Belgaum Chikkodi line-1&2, 220kV Kaiga Kadra, 220kV Kaiga Kodalalli line, and 220kV Harthi Gadag Line-1&2 were under outage. At 14:04hrs, RN fault was observed in 220kV Narendra_Kar Hubli Line-1 at a distance of 10.7KM from Narendra_Kar end. At Narendra_Kar's end, zone-1 protection operated and the line tripped on DPR. At Hubli's end, the fault was sensed in zone-1. A/R operated and the line was holding. At 14:09hrs, at 220kV/110kV Narendra_Kar SS the pilot insulator between 220kV Bus-1 and Bus-2 failed, resulting in the operation of 220kV BBP. Immediately, all the elements connected to 220kV Bus got tripped. At the same time, 220kV Bidnal Soudatti and 220kV Bidnal Haveri line tripped on over current protection. Tripping of connected lines resulted in complete outage of 220kV Nagheri PH, 220kV Kadra PH, 220kV Kodalalli PH and 110kV Supa PH of KPCL. 220kV/110kV Narendra_Kar SS, 220kV/110kV Belgaum SS, 220kV/110kV Ambewadi SS, 220kV/110kV Karwar SS, 220kV/110kV Bidnal SS, 220kV/110kV Indal SS, and 220kV/110kV Hubli SS of and 220kV/110kV Harthi SS of KPCL. Further details awaited.	1. 220kV Narendra_Kar Hubli-1&2 2. 220kV Narendra_Kar Ambewadi-1&2 3. 220kV Narendra_Kar-Bidnal 4. 220kV Narendra_Kar-Haveri 5. 220kV Nagheri-Ambewadi-1&2 6. 220kV Nagheri-Hubli-1,2&3 7. 220kV Nagheri-Bidnal 8. 220kV Nagheri-Kodalalli-1&2 9. 220kV Kadra-Kodalalli 10. 220kV Kadra-Karwar-1&2 11. 220kV Bidani-soudatti 12. 220kV Hubli-Bidnal-1 &2 13. 220kV Bidnal-Haveri 14. 220kV Ambewadi-Xeldem 15. Nagheri Unit-1,2,3,4,5&6 16. Kodalalli Unit-1,2&3 17. 220kV Narendra_Kar Belgaum-1&2
11	GD-1	Karnataka	29-Mar-22 18:07	29-Mar-22 18:20	13mins	800	200	1.98%	0.43%	40376	46302	Complete Outage of 220kV Nagheri PH, 220kV Kadra PH, 220kV Kodalalli PH and 110kV Supa PH of KPCL, 220kV/110kV Narendra_Kar SS, 220kV/110kV Belgaum SS, 220kV/110kV Ambewadi SS, 220kV/110kV Karwar SS, 220kV/110kV Bidnal SS, 220kV/110kV Indal SS, and 220kV/110kV Hubli SS of KPCL, and 220kV/110kV Harthi SS of KPCL. During antecedent conditions, 220kV Hubli Sirsi Line-1&2, 220kV Belgaum Chikkodi line-2, 220kV Kaiga Kadra, 220kV Kaiga Kodalalli lines, and 220kV Harthi Gadag line-1&2 were under outage. As per the reports submitted, the triggering incident was RN fault in 220kV Narendra_Kar Kanabargi(Belgaum) line-2 at a distance of 0.4KM from Narendra_Kar end because of R-phase CT failure and line got tripped at both ends. At the same time, BBP of 220kV Bus operated, and all the elements got tripped. Subsequently, 220kV Bidnal Soudatti and 220kV Bidnal Haveri lines tripped on over current protection. Tripping of connected lines resulted in complete outage of 220kV Nagheri PH, 220kV Kadra PH, 220kV Kodalalli PH and 110kV Supa PH of KPCL. 220kV/110kV Narendra_Kar SS, 220kV/110kV Belgaum SS, 220kV/110kV Ambewadi SS, 220kV/110kV Karwar SS, 220kV/110kV Bidnal SS, 220kV/110kV Indal SS, and 220kV/110kV Hubli SS of and 220kV/110kV Harthi SS of KPCL. Further details are awaited.	1. 220kV Narendra_Kar Hubli-1&2 2. 220kV Narendra_Kar Ambewadi-1&2 3. 220kV Narendra_Kar-Bidnal 4. 220kV Narendra_Kar-Haveri 5. 220kV Nagheri-Ambewadi-1&2 6. 220kV Nagheri-Hubli-1,2&3 7. 220kV Nagheri-Bidnal 8. 220kV Nagheri-Kodalalli-1&2 9. 220kV Kadra-Kodalalli 10. 220kV Kadra-Karwar-1&2 11. 220kV Bidani-soudatti 12. 220kV Hubli-Bidnal-1 &2 13. 220kV Bidnal-Haveri 14. 220kV Ambewadi-Xeldem 15. Nagheri Unit-1,2,3,4,5&6 16. Kodalalli Unit-1,2&3 17. Kadra Unit-1&2 18. 220kV Narendra_Kar Belgaum-1&2
12	GI-1	Tamil Nadu	03-Mar-22 21:43	03-Mar-22 22:43	1hr	0	0	0.00%	0.00%	38165	44270	Tripping of 230kV Bus of 230kV/110kV/22kV Karaikudi_TN SS of TANTRANSCO: During antecedent conditions, all the elements were connected to 230kV Bus-2 at Karaikudi_TN SS. As per the report submitted, triggering incident was R-N fault in 230kV Karaikudi-Kavanur line-1. At the same time, there was R-phase CT failure in group controlled breaker of 50MVA Transformer-1 & 3. Immediately, BBP operated and all the elements connected to the bus got tripped. This resulted in de-energisation of 230kV Bus of 230kV/110kV Karaikudi_TN SS. 110kV/22kV Bus at Karaikudi_TN was intact during this event.	1. 230kV Karaikudi_TN Kavanur-1,2,3&4 2. 230kV Karaikudi_TN N T Kudil 1 3. 230kV Karaikudi_TN Karaikudi_PG 1&2 4. 230kV/110kV, 50MVA Transformer-1& 3 5. 230kV/110kV, 100MVA Transformer-2 6. 230kV Karaikudi Valuthur
13	GI-1	Telangana	07-Mar-22 03:04	07-Mar-22 04:20	1hr 16mins	0	0	0.00%	0.00%	32355	40489	Multiple Trippings at 400kV/220kV/11kV Sundila SS of TSTRANSCO: As per the report submitted, triggering incident was R-N fault in 220kV Sundila Medigadda line-1. At the same time, 220kV Bus-1 BBP of 400kV/220kV Sundila SS mal-operated due to P.U communication failure and all the elements connected to Bus-1 got tripped.	1. 220kV Sundila Medigadda line-1 2. 400kV/220kV Sundila ICT-3 & 4
14	GI-1	Tamil Nadu	11-Mar-22 05:53	11-Mar-22 07:15	1hr 22mins	0	0	0.00%	0.00%	37343	47278	Tripping of 230kV Bus of 230kV/110kV/22kV Karaikudi_TN SS of TANTRANSCO: During antecedent conditions, all the elements were connected to 230kV Bus-2 at Karaikudi_TN SS. As per the report submitted, triggering incident was R-N Fault in 230kV Karaikudi-Kavanur line-1. At the same time, there was jumper failure in 230kV Bus-2. Immediately, BBP operated and all the elements connected to the bus got tripped. This resulted in de-energisation of 230kV Bus of 230kV/110kV Karaikudi_TN SS. 110kV/22kV Bus at Karaikudi_TN was intact during this event.	1. 230kV Karaikudi_TN Kavanur-1,2,3&4 2. 230kV Karaikudi_TN N T Kudil 1 3. 230kV Karaikudi_TN Karaikudi_PG 1&2 4. 230kV/110kV, 50MVA Transformer-1& 3 5. 230kV/110kV, 100MVA Transformer-2 6. 230kV Karaikudi Valuthur
15	GI-2	Karnataka	20-Mar-22 11:47	20-Mar-22 15:22	3hr 35mins	0	0	0.00%	0.00%	49014	52434	Tripping of 400kV Bus-1 of 400kV/220kV Devanahalli SS of KPCL: As per the report submitted, triggering incident was LBB operation while carrying out wiring works in 400kV Devanahalli Pavagada Line-2 and all the element connected to 400kV Bus-1 got tripped.	1. 400kV Devanahalli Nelamangala-1 2. 400kV Devanahalli Yelahanka 3. 400kV Devanahalli Hoody-1 4. 400kV Devanahalli Pavagada-1&2

Details of Grid Events during the Month of March 2022 in Eastern Region



Sl No.	Category of Grid Event	Affected Area	Time and Date of occurrence of Grid Event	Time and Date of Restoration	Duration (HH:MM)	Loss of generation / loss of load during the Grid Event		% Loss of generation / loss of load w.r.t Antecedent Generation/Load in the Regional Grid during the Grid Event		Antecedent Generation/Load in the Regional Grid		Brief details of the event (pre fault and post fault system conditions)	Elements Tripped
	(GI 1 or 2/ GD-1 to GD-5)					Generation Loss(MW)	Load Loss (MW)	% Generation Loss(MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
1	GD-1	Tenughat	07-Mar-22 05:32	07-Mar-22 06:08	00:36	360	0	1.37%	0.00%	26216	17221	At 05:32 Hrs, all emanating lines from Tenughat tripped. Both running units at Tenughat also tripped and generation loss of 350 MW occurred.	220 kV Tenughat-Govindpur-1 220 kV Tenughat-Govindpur-2 220 kV Tenughat-Biharsharif 220 kV Tenughat-Patratu UH1 & UH2 at Tenughat
2	GD-1	Tashiding	11-Mar-22 23:33	11-Mar-22 00:36	01:03	44	0	0.17%	0.00%	26409	18421	At 23:33 Hrs, 220 kV Tashiding-Rangpo and 220 kV Tashiding-New Mellli tripped from Tashiding only. Consequently Tashiding S/s became dead due to loss of connectivity and one running unit at Tashiding tripped due to loss of evacuation path.	220 kV Tashiding-Rangpo 220 kV Tashiding-New Mellli
3	GD-1	Chandrapura (CTPS A)	18-Mar-22 20:05	18-Mar-22 20:35	00:30	450	430	1.61%	2.05%	27971	20962	At 20:05 Hrs, R_ph CT (HV side) of 220/3.3 kV 16 MVA Reserve Transformer#4 at CTPS A burst. All 220 kV Lines emanating from CTPS A tripped. Two running units at CTPS B also tripped. 450 MW generation loss occurred and 430 MW load loss occurred.	220 kV CTPS A-CTPS B D/c 220 kV CTPS A-Kalyaneshwari D/c 220 kV CTPS A-BSL D/c 220 kV CTPS B-Bokaro TPS D/c 132 kV CTPS A-Gola D/c 132 kV CTPS A-Purulla D/c 132 kV Putki-Nimiaghat D/c CTPS B UH7, UH8
4	GI-1	Tenughat	24-Mar-22 21:37	24-Mar-22 23:28	01:51	364	0	1.27%	0.00%	28571	23142	At 21:37 Hrs, 220 kV Tenughat-Govindpur-2 tripped on R_N fault. At the same time, both running units at Tenughat tripped on O/C E/F.	220 kV Tenughat-Govindpur-2 UH1 & UH2 at Tenughat
5	GD-1	Lapanga	27-Mar-22 12:47	27-Mar-22 14:43	01:56	562	1900 (Captive load)	2.22%	9.79%	25363	19412	At 12:47 Hrs, all lines emanating from 400/220/132 kV Lapanga S/s tripped from remote ends. As intimated, fault occurred due to heavy bush fire near the abandoned area of the grid. 1900 MW captive load at Vedanta (Sterlite) tripped due to delayed clearance of the fault. OPGC UH3 also tripped at the same time.	400 kV Lapanga-Meramundali-1 400 kV Lapanga-Sterlite D/c 400 kV Lapanga OPGC (B Thermal) 220 kV Budhipadar-Lapanga 220 kV Katapalli-Lapanga D/c OPGC-UH3
6	GD-1	Garhwa	30-Mar-22 18:22	30-Mar-22 20:04	01:42	0	10	0.00%	0.04%	28612	23122	At 18:22 Hrs, 220 kV Daltonganj-Garhwa D/c tripped leading to total supply failure at Garhwa S/s. 10 MW load loss reported in Meral area.	220 kV Daltonganj-Garhwa D/c

Details of Grid Events during the Month of March 2022 in North Eastern Region



Sl No.	Category of Grid Event (GI I to 2/ GD-1 to GD-5)	Affected Area	Time and Date of occurrence of Grid Event	Time and Date of Restoration	Duration (HH:MM:SS)	Loss of generation / loss of load during the Grid Event		% Loss of generation / loss of load w.r.t Antecedent Generation/Load in the		Antecedent Generation/Load in the Regional Grid		Brief details of the event (pre fault and post fault system conditions)	Elements Tripped
						Generation Loss(MW)	Load Loss (MW)	% Generation Loss(MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
1	GD-1	Kakching, Thoubal, Chandel and Moreh area of Manipur Power System.	05-Mar-22 13:31	05-Mar-22 13:43	0:12:00	0	19	0.00%	0.97%	1690	1949	Kakching, Thoubal, Chandel and Moreh areas of Manipur Power System were connected with the rest of NER Grid through 132 kv Kakching - Churachandpur, 132 kv Kakching - Elangkangpokpi, 400kv/132kv, 315MVA ICT New Thoubal and 132 kv New Thoubal - Kongba D/C lines. At 13:31 Hrs on 05.03.2022, 132 kv Kakching - Churachandpur, 132 kv Kakching - Elangkangpokpi and 132 kv New Thoubal - Kongba D/C lines tripped. Due to tripping of these elements, Kakching, Thoubal, Chandel and Moreh areas of Manipur Power System were separated from rest of NER Grid and subsequently collapsed due to no source available in these areas. Power was extended to Kakching, Thoubal, Chandel and Moreh areas of Manipur Power System by charging 132 kv Elangkangpokpi - Kakching at 13:43 Hrs on 05.03.2022 and to New Thoubal by charging 132 kv New Thoubal - Kongba II and ICT of New Thoubal at 13:47 Hrs on 05.03.2022.	132 kv Kakching - Churachandpur, 132 kv Kakching - Elangkangpokpi, 400kv/132kv, 315MVA ICT New Thoubal and 132 kv New Thoubal - Kongba D/C lines.
2	GD-1	Karong area of Manipur Power System	10-Mar-22 08:11	10-Mar-22 08:35	0:24:00	0	18	0.00%	0.86%	2234	2093	Karong area of Manipur Power System was connected with rest of NER grid through 132 kv Yurembam-Karong & 132 kv Kohima-Karong lines At 08:11 Hrs on 10.03.22, 132 kv Yurembam-Karong & 132 kv Kohima-Karong lines tripped. Due to tripping of these elements, Karong area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area. Power supply was extended to Karong area of Manipur Power System by charging 132 kv Yurembam-Karong line at 08:35 Hrs on 10.03.22	132 kv Yurembam-Karong & 132 kv Kohima-Karong lines
3	GD-1	Karong area of Manipur Power System	10-Mar-22 16:13	10-Mar-22 16:30	0:17:00	0	17	0.00%	0.82%	2420	2064	Karong area of Manipur Power System was connected with rest of NER grid through 132 kv Yurembam-Karong & 132 kv Kohima-Karong lines. At 16:13 Hrs on 10.03.22, 132 kv Yurembam-Karong & 132 kv Kohima-Karong lines tripped. Due to tripping of these elements, Karong area of Manipur Power System was separated from rest of NER Grid and subsequently collapsed due to no source in this area. Power supply was extended to Karong area of Manipur Power System by charging 132 kv Yurembam-Karong line at 16:30 Hrs on 10.03.22	132 kv Yurembam-Karong & 132 kv Kohima-Karong lines
4	GD-1	Pasighat, Roing, Tezu and Namsai areas of Arunachal Pradesh Power System	15-03-2022 14:47	15-03-2022 15:12	0:25:00	0	12	0.00%	0.52%	1943	2299	Pasighat, Roing, Tezu and Namsai areas of Arunachal Pradesh Power System were connected with the rest of NER Grid through 132 kv Along - Pasighat line. At 14:47 Hrs on 15.03.2022, 132 kv Along - Pasighat line tripped. Due to tripping of this element, Pasighat, Roing, Tezu and Namsai areas of Arunachal Pradesh Power System were separated from the rest of NER Grid and subsequently collapsed due to no source available in these areas. Power was extended to Pasighat, Roing, Tezu and Namsai areas of Arunachal Pradesh Power System by charging 132 kv Along Pasighat line at 15:12 Hrs on 15.03.22	132 kv Along - Pasighat line
5	GD-1	Tenga and Khupi areas of Arunachal Pradesh Power System and Dikshi HEP	18-03-2022 23:38	18-03-2022 23:53	0:15:00	7	18	0.34%	1.02%	2086	1769	Tenga and Khupi areas of Arunachal Pradesh Power System and Dikshi HEP were connected with the rest of NER Grid through 132 kv Balipara - Tenga line. At 23:38 Hrs on 18.03.2022, 132 kv Balipara - Tenga line tripped. Due to tripping of this element, Tenga and Khupi areas of Arunachal Pradesh Power System and Dikshi HEP were separated from the rest of NER Grid and subsequently collapsed due to load-generation mismatched in these areas. At 23:53 Hrs on 18.03.2022, 132 kv Balipara - Tenga line was declared faulty.	132 kv Balipara - Tenga line
6	GD-1	Rangia, Nalabari, Sipajhar, Kamalpur areas of Assam Power System	24-03-2022 12:40	24-03-2022 13:19	0:39	0	120	0%	7%	1983	1839	Rangia, Nalabari, Sipajhar, Kamalpur areas of Assam Power System were connected with the rest of NER Grid through 132 kv Motonga (Bhutan) - Rangia, 220 kv BTPS - Rangia 1 and 220 kv BTPS - Rangia 2 lines. 132 kv Nalbari-Dhalgaon line was under shutdown to avoid overloading of 132 kv BTPS-Dhalgaon 1 & 2 lines, 132 kv Rowta - Rangia and 132 kv Sipajhar - Rowta were under shutdown to avoid overloading of 132 kv Sonabil-Depota and 132kv Kamalpur-Kahelipara was under shutdown to avoid overloading of lines. At 12:40 Hrs on 24.03.2022, 132 kv Motonga (Bhutan) - Rangia, 220 kv BTPS - Rangia 1 and 220 kv BTPS - Rangia 2 lines tripped. Due to tripping of these elements, Rangia, Nalabari, Sipajhar, Kamalpur areas of Assam Power System were separated from the rest of NER Grid and subsequently collapsed due to no load in these areas. Power was extended to Rangia, Nalabari, Sipajhar, Kamalpur areas of Assam Power System at 13:19 Hrs on 24.03.2022 by charging 220 kv BTPS - Rangia 1 line	132 kv Motonga (Bhutan) - Rangia, 220 kv BTPS - Rangia 1 and 220 kv BTPS - Rangia 2 lines
7	GD-1	Tenga and Khupi areas of Arunachal Pradesh Power System and Dikshi HEP	24-03-2022 15:00	24-03-2022 15:51	0:51	7	19	0%	1%	1969	1795	Tenga and Khupi areas of Arunachal Pradesh Power System and Dikshi HEP were connected with the rest of NER Grid through 132 kv Balipara - Tenga line. At 15:00 Hrs on 24.03.2022, 132 kv Balipara - Tenga line tripped. Due to tripping of this element, Tenga and Khupi areas of Arunachal Pradesh Power System and Dikshi HEP were separated from the rest of NER Grid and subsequently collapsed due to load-generation mismatched in these areas. Power was extended to Tenga and Khupi areas of Arunachal Pradesh Power System and Dikshi HEP at 15:51 Hrs on 24.03.2022 by charging 132 kv Balipara - Tenga line	132 kv Balipara - Tenga line

Details of Grid Events during the Month of March 2022 in North Eastern Region



Sl No.	Category of Grid Event (GI I to 2/ GD-1 to GD-5)	Affected Area	Time and Date of occurrence of Grid Event	Time and Date of Restoration	Duration (HH:MM:SS)	Loss of generation / loss of load during the Grid Event		% Loss of generation / loss of load w.r.t Antecedent Generation/Load in the		Antecedent Generation/Load in the Regional Grid		Brief details of the event (pre fault and post fault system conditions)	Elements Tripped
						Generation Loss(MW)	Load Loss (MW)	% Generation Loss(MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
8	GD-4	Mokokchung area of Nagaland Power System	24-03-2022 17:51	24-03-2022 18:22	0:31:00	0	16	0.00%	0.67%	2763	2383	Mokokchung area of Nagaland Power System was connected with the rest of NER Grid through 132 kv Mokokchung (PG) - Mokokchung (DoP, Nagaland) 1 and 132 kv Mokokchung (PG) - Mokokchung (DoP, Nagaland) 2 lines. 132kv Doynag-Mokokchung line was under forced outage since 17:43 Hrs on 24.03.2022. At 17:51 Hrs on 24.03.2022, 132 kv Mokokchung (PG) - Mokokchung (DoP, Nagaland) 1 and 132 kv Mokokchung (PG) - Mokokchung (DoP, Nagaland) 2 lines tripped. Due to tripping of these elements, Mokokchung area of Nagaland Power System was separated from the rest of NER Grid and subsequently collapsed due to no load in this area. Power was extended to Mokokchung area of Nagaland Power System at 18:22 Hrs on 24.03.2022 by charging 132 kv Mokokchung (PG) - Mokokchung (DoP, Nagaland) 2 line	132 kv Mokokchung (PG) - Mokokchung (DoP, Nagaland) 1 and 132 kv Mokokchung (PG) - Mokokchung (DoP, Nagaland) 2 lines
9	GD-4	Karong area of Manipur Power System and Kohima area of Nagaland Power System	24-03-2022 18:22	24-03-2022 18:31	0:09:00	0	32	0.00%	1.33%	2859	2413	Karong area of Manipur Power System and Kohima area of Nagaland Power System were connected with the rest of NER Grid through 132 kv Imphal (MSPCL) - Karong line. 132 kv Dimapur-Kohima was declared faulty and 132 kv Wokha-Kohima was under forced outage since 17:43 Hrs of 24.03.2022. At 18:22 Hrs on 24.03.2022, 132 kv Imphal (MSPCL) - Karong line tripped. Due to tripping of this element, Karong area of Manipur Power System and Kohima area of Nagaland Power System were separated from the rest of NER Grid and subsequently collapsed due to no load in this area. Power was extended to Karong area of Manipur Power System at 18:31 Hrs on 24.03.2022 by charging 132 kv Imphal (MSPCL) - Karong line and to Kohima area of Nagaland Power System by charging 132 kv Karong-Kohima line at 18:48 Hrs on 24.03.2022	132 kv Imphal (MSPCL) - Karong line
10	GD-4	Tenga and Khupi areas of Arunachal Pradesh Power System and Dikshi HEP	26-03-2022 01:36	26-03-2022 01:48	0:12:00	5	16	0.37%	1.06%	1362	1505	Tenga and Khupi areas of Arunachal Pradesh Power System and Dikshi HEP were connected with the rest of NER Grid through 132 kv Balipara - Tenga line. At 01:36 Hrs on 26.03.2022, 132 kv Balipara - Tenga line tripped. Due to tripping of this element, Tenga and Khupi areas of Arunachal Pradesh Power System and Dikshi HEP were separated from the rest of NER Grid and subsequently collapsed due to load-generation mismatched in these areas. Power was extended to Tenga and Khupi areas of Arunachal Pradesh Power System and Dikshi HEP at 01:48 Hrs on 26.03.2022 by charging 132 kv Balipara - Tenga line	132 kv Balipara - Tenga line
11	GD-4	Lunshong area of Meghalaya Power System	26-03-2022 02:10	26-03-2022 02:30	0:20:00	0	20	0.00%	1.38%	1351	1446	Lunshong area of Meghalaya Power System was connected the rest of NER Grid through 132 kv Lumshong-Panchgram & 132 kv Khleihriat-Lumshong lines. At 02:10 Hrs on 26.03.2022, 132 kv Lumshong-Panchgram & 132 kv Khleihriat-Lumshong lines tripped. Due to tripping of these elements, Lunshong area of Meghalaya Power System was separated from the rest of NER Grid and subsequently collapsed due to no load in this area. Power was extended to Lunshong area of Meghalaya Power System at 02:30 Hrs on 26.03.2022 by charging 132 kv Lumshong-Panchgram line.	132 kv Lumshong-Panchgram & 132 kv Khleihriat-Lumshong lines
12	GD-4	Karong area of Manipur Power System	26-03-2022 16:01	26-03-2022 16:18	0:17:00	0	10	0.00%	0.50%	1985	2012	Karong area of Manipur Power System was connected with the rest of NER Grid through 132 kv Imphal (MSPCL) - Karong & 132 kv Kohima-Karong lines. At 16:01 Hrs on 26.03.2022, 132 kv Imphal (MSPCL) - Karong & 132 kv Kohima-Karong lines tripped. Due to tripping of these elements, Karong area of Manipur Power System was separated from the rest of NER Grid and subsequently collapsed due to no load in this area. Power was extended to Karong area of Manipur Power System at 16:18 Hrs on 26.03.2022 by charging 132 kv Imphal (MSPCL) - Karong line.	132 kv Imphal (MSPCL) - Karong & 132 kv Kohima-Karong lines
13	GD-4	Karong area of Manipur Power System	27-03-2022 09:01	27-03-2022 09:54	0:53	0	12	0%	1%	2013	1896	Karong area of Manipur Power System was connected with the rest of NER Grid through 132 kv Kohima-Karong line. 132 kv Yurembam-Karong line was under ESD (due to current imbalance). At 09:01 Hrs on 27.03.2022, 132 kv Kohima-Karong line tripped. Due to tripping of this element, Karong area of Manipur Power System was separated from the rest of NER Grid and subsequently collapsed due to no load in this area. Power was extended to Karong area of Manipur Power System at 09:54 Hrs on 27.03.2022 by charging 132 kv Kohima-Karong line at 09:54 Hrs.	132 kv Kohima-Karong line
14	GD-4	Loktak Power Station of Manipur Power System	30-03-2022 17:06	30-03-2022 17:28	0:22	69	0	3%	0%	2677	2254	Loktak Power Station of Manipur Power System was connected with the rest of NER Grid through 132 kv Loktak-Jiribam(PG) line, 132 kv Loktak-Ningthoukhong line and 132 kv Loktak-Imphal(PG) line. 132 kv Loktak Renggang line tripped at 17:02 hrs on 30.03.2022 At 17:06 Hrs on 30.03.2022, 132 kv Loktak-Jiribam(PG) line, 132 kv Loktak-Ningthoukhong and 132 kv Loktak-Imphal(PG) line tripped. Due to tripping of these elements, Loktak Power Station of Manipur Power System was separated from the rest of NER Grid due to loss of evacuation path. Power was extended to Loktak Power Station of Manipur Power System at 17:28 Hrs on 30.03.2022 by charging 132 kv Loktak-Imphal(PG) line.	Loktak Unit-1, Loktak Unit-2, 132 kv Loktak-Jiribam(PG) line, 132 kv Loktak-Ningthoukhong line and 132 kv Loktak-Imphal(PG) line
15	GI-II	Tripura	04-Mar-22 06:58	04-Mar-22 08:30	1:32	167	0	8%	0%	2179	2521	Palatana STG-1 & Palatana GTG-1 tripped at 06:58 hours on 04-03-22 due to Due to GT air inlet filter differential pressure high. Revision done from Block No. 35 on 04-03-22.	Palatana STG-1 & Palatana GTG-1