

Details of Grid Events during the Month of March 2025 in Northern 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 for GI 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	GI-1	Punjab	10-03-2025 14:32	10-03-2025 19:17	04:45	0	100	0.000	0.172	55015	58229	i)220kV Dasuya(PS) has double main bus scheme. ii)As reported at 14:32hrs, B-ph conductor of 220 KV Dasuya(PS)-Jalandhar(BB) Ckt-2 broken due to damage of insulator string and fell on 220kV bus-2. iii)As per PMU at Jalandhar(PG), B-N fault with delayed clearance of ~560msec is observed. iv)Fault was not cleared in time from Dasuya end. [Exact details w.r.t. bus bar protection at Dasuya end yet to be received.] v)Line connected to 220kV Bus-2 i.e., 220 KV Dasuya(PS)-Jalandhar(PG) (PG) Ckt-1, 220 KV Sarla(PS)-Dasuya(PS) (PG) Ckt-2 and 220 KV Pong(BB)-Dasuya(PS) (BBMB) Ckt-2 tripped from remotest end. As reported, 220kV bus coupler at Dasuya(PS) also tripped. vi)As per SCADA, change in demand of approx. 100 MW is observed in Punjab control area.	1) 220 KV Dasuya(PS)-Jalandhar(BB) (BBMB) Ckt-2 2) 220 KV Dasuya(PS)-Jalandhar(PG) (PG) Ckt-1 3) 220 KV Sarla(PS)-Dasuya(PS) (PG) Ckt-2 4) 220 KV Pong(BB)-Dasuya(PS) (BBMB) Ckt-2
2	GI-2	Rajasthan	10-03-2025 07:14	10-03-2025 08:09	00:55	0	480	0.000	0.889	48596	54007	i)400/220kV Merta and Bikaner(RS) are connected to each other. Network diagram showing connectivity between Merta, Bikaner and VSLP plant is shown in attached in Annexure. ii)During antecedent condition, 220kV Merta-Makrana line was under open condition (as per instruction of SLDC-RS) and 220kV Merta-Jethana line was under tripped condition (line tripped on fault). 400/220kV 315 MVA ICT-1&2 at Bikaner(RS) and Merta(RS) were running at loading of 300MVA & 292MVA each respectively. 220/132kV Bikaner S/s was drawing power from VSLP generating station and 400/220kV Bikaner S/s (through D/C interconnector). iii)At 07:14 hrs, 135MW Unit-1 at VSLP tripped due to problem in PA fan. Due to this, the complete load of 220/132kV Bikaner S/s shifted on 220kV Bikaner (220kV)-Bikaner(400/220kV) interconnectors. Loading of interconnector-1&2 increased from 75MW & 315MW to 151MW & 684MW respectively. Eventually, 400/220kV 315MVA ICT-1&2 loading also increased (increased from 300MVA to 355MVA). iv)Due to increases in the loading of ICTs at Bikaner, SPS of ICTs at Bikaner operated and initiated tripping to 220kV Bikaner-Nokha which was carrying ~185MW. v)Further, load of Nokha shifted to 220kV Merta-Kuchera-Nokha after tripping of 220kV Bikaner-Nokha. This further led to overloading of 400/220kV 315MVA ICTs at Merta(RS). Loading of ICTs at Merta increased from 300MVA to 350MVA. vi)Further, 400/220kV 315MVA ICTs at Merta(RS) tripped due to ICT overcurrent protection operation due to overloading. At the same time, SPS of ICTs at Merta also operated and 220kV Merta-Kuchera line tripped. vii)As per PMU at Merta(RS), no fault in system is observed. viii)As per SCADA data change in Rajasthan demand of ~430MW is observed. However, as reported by SLDC-Rajasthan, load loss of ~480MW occurred in Rajasthan control area	1) 220kV Bikaner-Nokha (RS) Ckt 2) 400/220 KV 315 MVA ICT 1 at Merta(RS) 3) 400/220 KV 315 MVA ICT 1 at Merta(RS) 4) 220kV Merta-Kuchera Ckt
3	GI-2	Rajasthan	11-03-2025 14:51	11-03-2025 16:08	01:17	275	0	0.493	0.000	55792	59426	i)Generation of 400kV Renew Surya Ravi (RSRPL) (IP) RE station evacuates through 400 KV Renew Surya Ravi SL_BKN_PG(RSRPL)-Bikaner(PG) Ckt via 400/33 kv 150 MVA ICT 1 and 2 at Renew Surya Ravi SL_BKN_PG (RSRPL). During antecedent condition, 400kV Renew Surya Ravi (RSRPL) (IP) RE station was generating approx. 275 MW (as per PMU). ii)As reported, at 14:51hrs, 400/33 kv 150 MVA ICT 1 at Renew Surya Ravi SL_BKN_PG (RSRPL) tripped due to maloperation of E/F relay (vector summation of current setting issue). As per DR/EL, E/F relay at ICT-1 operated. iii)During the same time, 400/33 kv 150 MVA ICT 2 at Renew Surya Ravi SL_BKN_PG (RSRPL) also tripped (exact reason and nature of protection operated yet to be shared). iv)Due to tripping of both 400/33 kv 150 MVA ICT 1 and 2 at Renew Surya Ravi SL_BKN_PG (RSRPL), 400kV Renew Surya Ravi (RSRPL) (IP) generation becomes zero due to loss of evacuation path. v)As per PMU, no fault is observed in the system. vi)As per PMU, solar generation loss of approx. 275 MW is observed at RSRPL(IP).	1) 400/33 kv 150 MVA ICT 1 at Renew SuryaRavi SL_BKN_PG (RSRPL) 2) 400/33 kv 150 MVA ICT 2 at Renew SuryaRavi SL_BKN_PG (RSRPL)
4	GD-1	Uttar Pradesh	12-03-2025 01:06	12-03-2025 09:20	08:14	0	40	0.000	0.087	40497	46132	i)220/132/33kV Baraut(UP) S/s has single main and transfer bus scheme in all voltage levels. ii)As reported at 01:06 hrs, R-ph CT of 220 KV Baghat(PG)-Baraut(UP) (UP) Ckt-1 got damaged which further led to bus bar protection operation at 220kV Baraut(UP). As a result, all the elements connected to 220kV Bus tripped and complete blackout occurred at 220/132/33kV Baraut(UP) S/s. iii)However, as per DR at Baghat(PG) end of 220 KV Baghat(PG)-Baraut(UP) (UP) Ckt-1, R-N fault (I_{sc}=7.71kA) converted to R-Y-N fault (I_{sc}=14.48kA, I_{sc}=15.87kA) was observed in 220 KV Baghat(PG)-Baraut(UP) (UP) Ckt-1 and fault was cleared in zone-2 from Baghat(PG) end with fault clearing time of ~440ms. iv)As per DR at Baghat(PG) end of 220 KV Baghat(PG)-Baraut(UP) (UP) Ckt-2, R-N fault (I_{sc}=8.53kA) was observed in 220 KV Baghat(PG)-Baraut(UP) (UP) Ckt-2 and fault was sensed in zone-2 at Baghat(PG) end with fault clearing time of ~240ms. v)As per SCADA SOE, 220 KV Baghat(PG)-Shamli(UP) (UP) Ckt also tripped during the same time (exact reason of tripping yet to be shared). vi)As per PMU at Meerut(PG), R-N phase to ground fault converted to R-Y-N double phase to ground fault with delayed fault clearing time of 440ms was observed. vii)As per SCADA, change in demand of approx. 40MW is observed in Uttar Pradesh control area.	1) 220 KV Baghat(PG)-Baraut(UP) (UP) Ckt-1 2) 220 KV Baghat(PG)-Baraut(UP) (UP) Ckt-2 3) 220 KV Nirpura-Baraut(UP) Ckt 4) 220 KV Muradnagar_new-Baraut(UP) Ckt 5) 220/132kV 200MVA ICT-1 at Baraut(UP) 6) 220/132kV 200MVA ICT-2 at Baraut(UP) 7) 220/132kV 200MVA ICT-3 at Baraut(UP)
5	GD-1	Delhi	14-03-2025 18:34	14-03-2025 20:32	01:58	0	30	0.000	0.075	39404	40233	i)220/66/33kV Delhi Rohtak Road(BB) S/s has double main bus arrangement at 220kV level. ii)During antecedent condition, incoming power at Delhi Rohtak Road(BB) through 220 KV Delhi RR(BB)-Narela(DV) (BBMB) D/C was approx. 17 MW each (as per SCADA) which was supplying load of Delhi Rohtak Road(BB) S/s. iii)As reported, at 18:34hrs, 220 KV Delhi RR(BB)-Narela(DV) (BBMB) Ckt-1 tripped on R-B phase to phase fault with following relay indications: fault distance of 1.185km and fault current of I_{sc}=2.587kA and I_{sc}=2.523kA from Delhi RR(BB) end and fault distance of 17.59 km and fault current of I_{sc}=3.841kA and I_{sc}=3.878kA from Narela(DV) end. During patrolling, a kite string was found tangled between R and B phases at tower loc. no. 1069A, which was later removed. iv)During the same time, 220 KV Delhi RR(BB)-Narela(DV) (BBMB) Ckt-2 also tripped from Narela end only with following relay indications : fault distance of 17.59 km and fault current of I_{sc}=3.841kA and I_{sc}=3.878kA from Narela(DV) end (exact reason of fault yet not shared). During patrolling, nothing abnormal was found. v)Due to tripping of 220 KV Delhi RR(BB)-Narela(DV) (BBMB) D/C, complete blackout occurred at 220/66/33kV Delhi Rohtak Road(BB) S/s. vi)As per PMU at Mandaula(PG), R-B phase to phase fault with fault clearing time of 80 ms is observed. vii)As per SCADA, change in demand of approx. 30 MW is observed in Delhi control area.	1) 220 KV Delhi RR(BB)-Narela(DV) (BBMB) Ckt-1 2) 220 KV Delhi RR(BB)-Narela(DV) (BBMB) Ckt-2

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	(GI for GI-2/ GD-1 to GD-5)					Generation Loss(MW)	Load Loss (MW)	% Generation Loss (MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
6	GI-2	Haryana	15-03-2025 17:19	15-03-2025 19:45	02:26	0	0	0.000	0.000	44153	42627	i) During antecedent condition, 800 KV HVDC Kurukshetra(PG) Pole-1, 2, 3 & 4 were carrying approx. 250 MW each and hence total 1000 MW power was flowing from Champa to Kurukshetra. ii) It is reported at 17:19 hrs, 800 KV HVDC Kurukshetra (PG) Pole-2 & 4 blocked due to commutation failure in Pole-2. (Exact reason of tripping need to be analyzed) iii) It is 800 KV HVDC Kurukshetra(PG) Pole-2 and Pole-4 blocked, power flow of Pole-1 and Pole-2 shifted on Pole-3 and Pole-4. Hence, there was no reduction in power order. iv) It is per PMU at Kurukshetra(PG), no fault was observed in the system. However, fluctuation in voltage was observed. v) It is per SCADA, no change in demand of Haryana control area.	1) 800 KV HVDC Kurukshetra(PG) Pole-02 2) 800 KV HVDC Kurukshetra(PG) Pole-04
7	GD-1	Himachal Pradesh	16-03-2025 14:46	16-03-2025 16:45	01:59	0	0	0.000	0.000	48809	45884	i) Total generated power of Sainj HEP(HP), Parbati_2(NH) and Parbati_3(NH) evacuates through 400 KV Parbati_2(NH)- Banala(PG) (PKTCL) Ckt and 400 KV Parbati_3(NH)- Banala(PG) (PKTCL) Ckt via 400 KV Parbati_2(NH)-Sainj(HP) (PKTCL) Ckt and 400 KV Parbati_3(NH)-Sainj(HP) (PKTCL) Ckt. ii) During antecedent condition, no generation was there at 400KV Parbati_2(NH), 400KV Parbati_3(NH) and 400KV Sainj HEP(HP). iii) It is reported, at 14:46hrs, 400 KV Parbati_3(NH)- Banala(PG) (PKTCL) Ckt tripped from Banala(PG) end only on R-N phase to earth fault with fault distance of 6.9km and fault current of 5.545kA from Banala(PG) end (exact reason of fault yet to be shared). iv) It is further reported, 400 KV Parbati_2(NH)-Sainj(HP) (PKTCL) Ckt also tripped at the same time from Sainj end only (exact reason of tripping yet to be shared). v) Due to tripping of both 400 KV Parbati_3(NH)- Banala(PG) (PKTCL) Ckt and 400 KV Parbati_2(NH)-Sainj(HP) (PKTCL) Ckt, complete blackout occurred at 400KV Parbati_3(NH) and 400KV Sainj HEP(HP) 5/s. vi) It is per PMU at Nallagarh(PG), two consecutive R-N phase to earth fault is observed with delayed fault clearing time of 1240 ms and 1040 ms respectively. vii) It is per SCADA, no generation loss is observed at 400KV Parbati_2(NH), 400KV Parbati_3(NH) and 400KV Sainj HEP(HP) as there was no generation at either of them.	1) 400 KV Parbati_2(NH)-Sainj(HP) (PKTCL) Ckt 2) 400 KV Parbati_3(NH)- Banala(PG) (PKTCL) Ckt
8	GD-1	Rajasthan	18-03-2025 10:00	18-03-2025 10:34	00:34	1035	0	1.757	0.000	58902	56730	i) Generation of 220KV Nokhra (IP) and 400KV AGE25L stations evacuate through 220 KV Nokhra SL_BHD2 (NTPC)-Bhadla_2 (PG) (NTPC_NOKHRA) Ckt and 400 KV AGE25L SL_BHD2_PG-Bhadla_2 (PG) (AGE25L) Ckt-1 respectively. ii) During antecedent condition, 220KV Nokhra (IP) and 400KV AGE25L were generating approx. 262 MW and 488 MW respectively (as per PMU). iii) It is reported, at 09:59:46hrs Y-Phase CT of 405-52 bay at AGE25L RE station failed and it triggered Transformer Differential protection of main CB 404-52 and Tie CB 405-52 opened on Bus-Bar Zone-1 protection. iv) At 09:59:47 hrs, 400 KV AGE25L SL_BHD2_PG-Bhadla_2 (PG) (AGE25L) Ckt-1 tripped on R-Phase line differential protection. During inspection at site, spark in R-phase CVT was found and the same was replaced. v) It is per PMU at 400KV Bhadla2(PG), Y-N fault cleared in 240msec followed by permanent R-N fault is observed with fault clearing time of 80ms. vi) At the same time, 400/220KV 500MVA ICT-6 at Bhadla2(PG) and 220 KV NOKHRA SL_BHD2 (NTPC)-BHADLA_2 (PG) (NTPC_NOKHRA) Ckt-1 also tripped. The reason for the same is yet to be received. vii) It is per PMU, solar generation loss of approx. 487 MW at AGE25L(IP) and 262 MW at Nokra(IP) were observed. viii) It is per SCADA, total Generation loss of 1035MW was observed in NR region.	1) 400/220 KV 500 MVA ICT 6 AT BHADLA_2 (PG) 2) 220 KV NOKHRA SL_BHD2 (NTPC)-BHADLA_2 (PG) (NOKHRA) Ckt-1 3) 400 KV AGE25L SL_BHD2_PG-Bhadla_2 (PG) (AGE25L) Ckt-1
	GI-2	Haryana	19-03-2025 19:13	19-03-2025 20:54	01:41	1035	0	2.094	0.000	49421	57326	i) During antecedent condition, 800KV HVDC Champa-Kurukshetra was carrying total 2578MW (Pole 01- 490 MW, Pole 02- 737MW, Pole 03- 716MW, Pole 04- 492MW). ii) It is reported, at 19:13hrs Pole-2 and Pole-4 Tripped on T-Zone protection as Pole-2 protection was reading wrong values of DC current of parallel pole. Power shifted to remaining poles (Pole-1&3) and power order after the tripping were 1349 MW in Pole-1 and 1527 MW in Pole-3. iii) POWERGRID performed signal injection in control TB and affected lane was rebooted. The analog value of latched protection was found satisfactory. iv) It is per PMU, fluctuation in voltage was observed. v) As per SCADA, no change in demand is observed in Haryana control area.	1) 800 KV HVDC KURUKSHETRA(PG) POLE-2 2) 800 KV HVDC KURUKSHETRA(PG) POLE-4
10	GD-1	Rajasthan	23-03-2025 09:34	23-03-2025 10:09	00:35	230	0	0.441	0.000	52157	53319	i) Generation of 220KV AEGPL(IP) stations evacuate through 220 KV BHADLA_2 (PG)-AEGPL_SL_BHD2_PG (AMP ENERGY GREEN PRIVATE LIMITED) Ckt. ii) During antecedent condition, 220 KV BHADLA_2 (PG)-AEGPL_SL_BHD2_PG (AMP ENERGY GREEN PRIVATE LIMITED) Ckt was generating approx. 250MW (as per PMU). iii) It is reported, at 09:34hrs, 220 KV BHADLA_2 (PG)-AEGPL_SL_BHD2_PG (AMP ENERGY GREEN PRIVATE LIMITED) Ckt tripped on B-N phase to earth fault. During the inspection it was found that there was cable failure in Feeder 5. iv) Due to tripping of 220 KV BHADLA_2 (PG)-AEGPL_SL_BHD2_PG (AMP ENERGY GREEN PRIVATE LIMITED) Ckt, 220/33 KV, 150 MVA ICT-1 & 2 also tripped due to loss of evacuation path and 220KV AEGPL lost its connectivity from grid and blackout occurred in 220KV AEGPL 5/s. v) It is per PMU at 400KV Bhadla_2 5/s, no fault was observed. vi) It is per PMU, solar generation loss of approx. 230 MW at AEGPL(IP) was observed.	1) 220 KV BHADLA_2 (PG)-AEGPL_SL_BHD2_PG (AMP ENERGY GREEN PRIVATE LIMITED) Ckt

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	(GI for GI-2/ GD-1 to GD-5)					Generation Loss(MW)	Load Loss (MW)	% Generation Loss (MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
11	GD-1	Jammu & Kashmir	26-03-2025 04:44	26-03-2025 06:26	01:42	6	21	0.014	0.045	42974	46931	i)220/66kV Leh has double main bus system. Nimmo Bazgo HEP is connected at 66kV level at 220/66kV Leh 5/s. ii)During antecedent condition, 220 KV KHALSTI-LEH (PG) CKT-1 was carrying 12MW, while 220/66kV, 50MVA ICT-1 and ICT-2 were loaded 6 MW each. iii)As reported, at 04:44 hrs, 220kV Bus Bar protection operated due to flashover in GIS of Bus Coupler Bay resulting in outage of 220kV KHALSTI-Leh Line & 220/66kV 50MVA ICT-1 at Leh (PG). Subsequently, 220kV Bus-2 and 220/66kV 50MVA ICT-2 also tripped (Details awaited). iv)Due to tripping of both the ICTs, the generator at Nimoo Bazgo HWP also tripped due to loss of evacuation path along with other 66kV feeders. This led to complete blackout of 220kV Leh substation. v)As per PMU, R-N phase to earth fault with fault clearance time of 120msec was observed. vi)As per SCADA, load loss of approx. 21 MW in J&K control area and generation loss of approx. 6 MW at Nimoo were observed.	i)220 KV LEH(UK) - BUS 1 ii)220/66 KV 50 MVA ICT 1 AT LEH(PG) iii)220 KV KHALSTI-LEH (PG) CKT-1
12	GD-1	HP & Haryana	26-03-2025 13:37	26-03-2025 16:02	02:25	0	113	0.000	0.224	57195	50427	i)220kV Pinjore(HR) and 220kV Baddi 5/s has double main bus arrangement at 220kV side. ii)During antecedent condition, 220 KV Panchkula (PG)-Pinjore (HR) (HVPNL) Ckt-1 & Ckt-2 were carrying 136MW each, while 220kV Pinjore – Baddi Ckt1 & 2 were carrying 125MW each. (As per SCADA). Further, 220/66kV Baddi(HP) 5/s was operating in split mode and load of 220/66kV was being fed from 220kV Pinjore – Baddi Ckt-1 & 2 iii)As reported, at 13:37 hrs, 220 KV Panchkula(PG)-Pinjore (HR) (HVPNL) Ckt-2 tripped on R-N phase to earth fault. The fault location was 30KM from Panchkula end, 2-2 distance protection operated. The fault current as reported by POWERGRID was 4.2KA but as per the DR submitted fault current was 3.8KA. It is pertinent to mention that due to tripping of Ckt-2 all the load shifted on 220 KV Panchkula(PG)-Pinjore (HR) (HVPNL) Ckt-1. iv)Further at 13:42 hrs, 220 KV Panchkula(PG)-Pinjore (HR) (HVPNL) Ckt-1 was manually hand tripped due to heavy sparking on Bus Isolator 20589 at Panchkula end. v)With the outage of 220kV Panchkula-Pinjore D/C, 220kV Pinjore station became dead and load of Baddi(HP) also got affected. vi)As per PMU at Panchkula(PG), R-N phase to earth fault is observed with delayed fault clearing time of 240msec. vii)As per SCADA, change in demand of approx. 113MW is observed in HP control area respectively. No change in demand of Haryana control area observed.	i)220 KV Panchkula(PG)-Pinjore (HR) (HVPNL) Ckt-2 ii)220 KV Panchkula(PG)-Pinjore (HR) (HVPNL) Ckt-1 iii)220 KV Pinjore(HR)-Baddi (HP) (HVPNL) Ckt-1 iv)220 KV Pinjore(HR)-Baddi (HP) (HVPNL) Ckt-2
13	GI-1	UK & HP	28-03-2025 07:31	28-03-2025 09:18	01:47	90	160	0.171	0.309	52576	51813	i)220 Khodri Sub station has double main Bus Bar system with 4 * 60MW generating units. ii)During antecedent condition, 220 KV KHODRI(UK)-MAJRI(HP) (UK) CKT-1 and CKT-2 were carrying 82MW load each, while 220 KV SAHARANPUR (UP) – KHODRI (UK) (UP) was carrying 19MW load (as per SCADA). iii)As reported, at 07:31 hrs, Bar protection operated due to R phase CB blast of Unit 1 at Khodri. Due to bus bar protection operation, 220kV As per DR of 220 KV KHODRI(UK)-MAJRI(HP) (UK) CKT-1 and CKT2, R-N phase to earth fault can be observed along with 2-4 distance protection operation from Khodri end. iv)As per PMU, R-N phase to earth fault was observed in the system with delayed fault clearance of 240 msec observed. v)As per Disturbance short report submitted by UP SLDC, 220 KV SAHARANPUR(UP)-KHODRI(UK) (UP) CKT-1 tripped on R-N, transient earth fault, Z-3 and the fault current is 1.9KA . vi)220 KV SARSAWAN(UP)-KHODRI(UK) (UP) CKT-1 tripped on Z-1, R-N fault, fault distance: 85.22KM from Sarasan(UP) end. The line did not open from Sarasan end. vii)Due to tripping of 220kV Khodri-Majri D/C which were only feeding source at 220kV side at Majri (HP), load of 220/132kV Majri(HP) got affected. viii)As per SCADA, change in demand and generation of approx. 90 MW and 96 MW respectively in Himachal and Uttarakhand control area were observed. However, SLDC Uttarakhand and SLDC Himachal informed generation loss of 75MW and load loss of 160MW.	i)220 KV SAHARANPUR(UP)-KHODRI(UK) (UP) CKT-1 ii)220 KV SARSAWAN(UP)-KHODRI(UK) (UP) CKT-1 iii)220 KV KHODRI(UK)-MAJRI(HP) (UK) CKT-1 iv)220 KV KHODRI(UK)-MAJRI(HP) (UK) CKT-2
14	GD-1	Rajasthan	31-03-2025 13:43	31-03-2025 14:19	00:36	802	0	1.473	0.000	54433	43433	i)Generation of 220kV Azure Maple(IP) station evacuates through 220 KV Bhadla(PG)-Azure Maple PSS SL_BHD_PG (APMPL) (APMPL) Ckt-1 which was generating approx. 220 MW (as per PMU). Similarly, 220kV Azure 34(IP) station evacuates through 220 KV BHADLA(PG)-AZURE POWER 34 SOLAR(APTL) (APTL) Ckt-1 which was generating 132MW (as per PMU). ii)As reported, at 13:43hrs, 220 KV Bhadla(PG)-Azure Maple PSS SL_BHD_PG (APMPL) (APMPL) Ckt-1 tripped on R-N phase to earth fault due to differential protection operation on account of tree fell on the line. At the same time 130 MVA 220/33kV ICT at 220kV Azure 34 also tripped on account of Differential relay protection (exact reason yet to be shared) iii)Due to tripping of 220 KV Bhadla(PG)-Azure Maple PSS SL_BHD_PG (APMPL) (APMPL) Ckt-1 and 130 MVA 220/33kV ICT1 at Azure34, Azure Maple(IP) and Azure 34 5/s lost its connectivity from grid and blackout occurred at 220kV Azure Maple(IP) and 220kV Azure 34(IP) 5/s. iv)As per PMU at Bhadla(PG), R-N phase to earth fault (voltage dipped upto 0.95 p.u.) is observed with fault clearing time of 160ms. After the fault clearance voltage increased upto 1.04 p.u. v)As per PMU at Baddi(PG), a sharp drop in frequency is observed from 49.90 Hz to 49.82 Hz and frequency recovered to 49.91 Hz within 1 min. vi)As per SCADA, dip in NR total solar generation of approx. 802 MW is observed. vii)As per SCADA, solar generation loss of approx. 290MW at Azure Mapple, 132MW at Azure34, 115MW at TPREL and 115MW at AHEJAL RE stations were observed. Drop in generation of TPREL and AHEJAL is suspected due to LVRT non-compliance. Details is yet to be received from RE stations. viii)As per DR (Bhadla end) of 220 KV Bhadla(PG)-Azure Maple PSS SL_BHD_PG (APMPL) (APMPL) Ckt-1, R-N phase to earth fault (~7.3KA) with unsuccessful A/R operation is observed. 3-ph A/R was observed instead of 1-ph A/R.	i)220 KV Bhadla(PG)-Azure Maple PSS SL_BHD_PG (APMPL) Ckt-1 ii)220/33kV 130 MVA ICT1 at Azure 34

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	(GI for GI 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	WR	06-03-2025 06:47	06-03-2025 08:24	01:37	70	-	0.04%	-	74699	65838	At 06:47 hrs / 03-03-2025, 220 kV Bhuj-Chugger-1 tripped on Y-E fault from Chugger end only and autorecloser successful at Bhuj End. Due to loss of single evacuation transmission line 220 kV Chugger (SITAC) substation became dead. Generation loss of 70 MW occurred at Chugger (SITAC) Wind Power plant due to loss of evacuation path.	Tripping of following Elements: 1. 220 kV Bhuj-Chugger-1
2	GD-2	WR	12-03-2025 14:50	12-03-2025 20:00	05:10	2800	10000.00	3.70%	15.06%	75743	66419	On 12-03-2025, multiple events occurred in Central and South Gujarat. Complete loss of supply occurred at Eight(8) 400kV and forty two(42) 220kV substations in Central and South Gujarat system, leading to load loss of 3743 MW and generation loss of 3044 MW due to the multiple events Event-1 (From 14:50 hrs to 15:00 hrs): At 14:50 hrs / 12-03-2025, 400 kV Asoj-Kosamba-1 tripped on persistent Y-E fault, caused by a forest fire. This led to increased loading on parallel corridors from Central to South Gujarat. Simultaneously, lines connected to 400 kV Gandhar and 400 kV Pirana(T) tripped unintentionally. 220 kV tie lines between Central and South Gujarat tripped on Over current protection. The cascade tripping of 400 kV & 220 kV transmission lines worsened the low voltage scenario in South Gujarat leading to tripping of major generation station in South Gujarat. Event-2 (From 15:01 hrs to 15:35 hrs): At 15:01 hrs / 12-03-2025, 400 kV Aurangabad(PG)-Boisar(PG)-1 line tripped on R-B phase-to-phase fault, due to snapping of R phase conductor. Subsequently, 220 kV TAPS(1&2)-Vapi(GI)-1 and 220 kV Nashik-Navsari-1&2 tripped on over current protection operation. At 15:23hrs, 400 kV Vav(GS)-Navsari(PG)-1 line was manually tripped due to a fire in the wave trap at the Vav(GS) end. As a consequence of these multiple trippings, the power supply to South Gujarat was solely dependent on the 400 kV Navsari(PG)-Jhanor-1 line. Event-3 (From 15:35 hrs to 15:40 hrs): At 15:35 hrs, an attempt was made to restore 400 kV Dehgam-Jhanor-1 from Jhanor end (to strengthen supply to South Gujarat). However, this line tripped again from Jhanor end shortly after being energized. The situation was further worsened by tripping of 400kV Navsari(PG)-Jhanor-1 (sole supply line) from Navsari(PG) end only (suspected unintended operation). The tripping of the 400 kV Navsari(PG)-Jhanor-1 line resulted in a complete power supply failure at several critical substations in South Gujarat, including Gandhar, Sugan, Vav(GS), Ukai, and Kosamba. Event-4 (From 15:40 hrs to 15:45 hrs): At 15:40 hrs, an attempt was made to restore power supply by closing the 400 kV Pirana(T)-Sugen-1 line from the Pirana(T) end as the line was closed from Sugan end. This action successfully extended the power supply to the previously affected substations Gandhar, Sugan, Vav(GS), Ukai, and Kosamba. However, due to insufficient load demand in that area, the 400 kV Pirana(T)-Sugen-1 line tripped again. The tripping occurred due to overvoltage, triggered by the Direct Transfer (DT) signal received from Sugan end.	Complete loss of supply occurred at Eight(8) 400kV and forty two(42) 220kV substations in Central and South Gujarat system. Tripping of following Generating Units: 1. Ukai(H)-UH2 (75 MW) 2. KAPS-UH#1 (220 MW) 3. SLPP-UH3 (125 MW) 4. KAPS-UH3 (700 MW) 5. KAPS-UH4 (700 MW) 6. SLPP-UH#1 (125 MW) 7. SLPP-UH2 (125 MW) 8. Ukai(T)-UH4 (200 MW) 9. Ukai(T)-UH3 (200 MW) 10. Ukai(T)-UH6 (500 MW) 11. TAPS-UH3 (540 MW)
3	GD-1	WR	14-03-2025 18:08	14-03-2025 18:48	00:40	920	650.00	1.25%	1.12%	73840	57899	Multiple Tripping Incidents in Korba(W) At 16:01 hrs / 14-03-2025, Korba(W)-Unit-3 (210 MW) tripped on generator differential protection operation. Simultaneously, 400/220 kV Korba(W)-ICT-1 tripped due to fire as reported by Chhattisgarh SLDC. Further, at 16:40 hrs / 14-03-2025, Korba(W)-Unit-4 (210 MW) tripped on generator differential protection operation and 400 kV Korba(W) Extension-Marwa-1 tripped due to fire as reported by Chhattisgarh SLDC. At 18:06 hrs / 14-03-2025 Korba(W)-Unit-5 (210 MW) tripped due to fire as reported by Chhattisgarh SLDC and at 18:10 hrs 400 kV Korba(W) Extension-Bhilai-1 and 400 kV Korba(W)-Raita-1 tripped due to Bus bar protection operation. Due to these tripping 400/220 kV Korba(W) substation became dead resulting in Generation loss of 920 MW and load loss of 650 MW in downstream network.	Tripping of following Elements: 1. Korba(W)-Unit-3,&5 (210 MW) 2. 400/220 kV Korba(W)-ICT-1 3. 400 kV Korba(W) Extension-Marwa-1 4. 400 kV Korba(W) Extension-Bhilai-1 5. 400 kV Korba(W)-Raita-1
4	GI-2	WR	15-03-2025 08:53	15-03-2025 10:11	01:18	1700	-	2.59%	-	65705	52637	At 08:53 hrs / 15-03-2025, while availing planned shutdown of 400 kV Khavda(KPS1)-Bus-1 for carrying out the HV test and bus bar stability, 400 kV Khavda(KPS1)-Bus-2, 400 kV Khavda(KPS1)-Khavda(KPSS1)-1, 400 kV Khavda(KPS1)-Khavda(KPSS2)-1, 400 kV Khavda(KPS1)-Khavda(KPSS3)-1 and 765/400kV Khavda(KPS1)-ICT-1, 2,&3 tripped. Ideally, in case of N-1 contingency of 400 kV Khavda(KPS1)-Bus-2, the three lines should have been in service through the three ICTs but the ICTs tripped on Backup Impedance relay operation. Due to loss of single evacuation transmission line 400 kV Khavda(KPSS1), 400 kV Khavda(KPSS2) and 400 kV Khavda(KPSS3) substations became dead, leading to around 1700 MW Generation loss.	Tripping of following Elements: 1. 400 kV Khavda(KPS1)-Bus-2, 2. 400 kV Khavda(KPS1)-Khavda(KPSS1)-1, 3. 400 kV Khavda(KPS1)-Khavda(KPSS2)-1, 4. 400 kV Khavda(KPS1)-Khavda(KPSS3)-1 5. 765/400kV Khavda(KPS1)-ICT-1, 2,&3
5	GD-1	WR	31-03-2025 10:54	31-03-2025 11:29	00:35	600	-	0.73%	-	81839	71392	At 10:54 hrs / 31-03-2025, 400 kV SKS-Kotra-1 tripped from SKS end only on B-E fault. Subsequently, at 10:56 hrs 400 kV SKS-Kotra-2 tripped on R-E fault from both ends. During inspection, internal flashover was observed in R phase wavetrapp of 400 kV SKS-Kotra-2 at Kotra end. Due to loss of double circuit evacuation transmission lines 400 kV SKS thermal substation became dead. Generation loss of 600 MW occurred at 400 kV SKS thermal substation due to the event.	Tripping of following Elements: 1. 400 kV SKS-Kotra-1 2. SKS-Unit-1&2 (300 MW)

Details of Grid Events during the Month of March 2025 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 1or GI 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	No GD-GI event in March 2025												

Details of Grid Events during the Month of March 2025 in Southern Region



Sl No.	Category of Grid Event	Affected Area	Time and Date of occurrence of Grid Event	Time and Date of Restoration	Duration (Hr: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 for GI-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	KARNATAKA, TAMILNADU	03-03-2025 18:17	03-03-2025 19:14	00:57	0	240	0.00%	0.46%	46649.5	52397.33	Complete Outage of 230kV/110kV Hosur_TN SS of TANTRANSCO and de-energization of Bus-2 of 220kV/66kV Yerrandahalli SS of KPTCL: As per the reports submitted, 230kV Hosur_TN Hosur_PG line-1 and 2 tripped at 230kV Hosur_TN SS due to suspected maloperation of SPS at 230kV Hosur_TN SS which was envisaged during the radial assistance from 230kV Hosur_TN SS to 230kV Yerrandahally SS during the shutdown period of 400kV Somanahally Mylasandra line. At the same time, tripping of 110kV feeders on operation of df/dt st-1 and st-2 at 230kV Hosur_TN SS were also reported. Subsequently, at 18:36hrs, YB-N fault was observed in 230kV Mettur_Auto Hosur line because of jumper cut at Loc No. 394. At both ends, zone-1 protection operated and the line tripped. Tripping of only connected source led to complete outage of 230kV/110kV Hosur_TN SS of TANTRANSCO and de-energization of Bus-2 of 220kV/66kV Yerrandahalli SS of KPTCL.	220KV-YERRAANDAHALLI-HOSUR-1, 230KV-METTURAUTO-HOSUR-1
2	GD - 1	KARNATAKA	04-03-2025 14:57	04-03-2025 16:42	01:45	0	124	0.00%	0.19%	51205.23	66970.73	Complete Outage of 220kV/66kV Chikkamangaluru SS: 220kV/66kV Chikkamangaluru is radially fed from 220kV MRS Shimoga Chikkamangaluru, 220kV Hassan_PG Chikkamangaluru. As per the reports submitted, at 14:57hrs, the triggering incident was B-N fault in 220kV MRS Shimoga Chikkamangaluru and the line tripped. At 15:08hrs, YB-N fault was observed in 220kV Hassan_PG Chikkamangaluru. At Hassan end, the fault was sensed in zone-1. Line was holding at Chikkamangaluru end. Tripping of the only connected line led to complete outage of 220kV/66kV Chikkamangaluru SS.	220KV-HASSAN-CHIKKAMAGALURU-1, 220KV-CHIKKAMAGALURU-MRS SHIMOGA-1
3	GD - 1	KARNATAKA	05-03-2025 21:31	05-03-2025 22:19	00:48	0	190	0.00%	0.36%	44418.14	53485.98	Complete Outage of 220kV/110kV Puttur SS: The triggering incident was 110kV Bus fault at Puttur substation due to the failure of the clamp connecting 110kV Main Bus-1 and the extension bus, resulting in the snapping of the Y-phase bus extension jumper. The fault was being fed through 3 100MVA Puttur Transformers-1,2&7 which were fed from 220kV Puttur Kemar Line-1&2. Immediately, 100MVA Puttur Transformer-2 & 7 tripped due to the operation of the 110kV side Y-phase OCR high-set. Before the tripping of 100MVA Transformer-1, both 220kV Puttur Kemar Line-1&2 tripped at the Puttur end on Non directional Definite time Over current protection. This resulted in the de-energization of the 220kV Bus of 220kV/110kV Puttur SS and Complete Outage of 220kV/110kV Puttur SS.	220KV-PUTTUR-KEMAR-1, 220KV-PUTTUR-KEMAR-2
4	GD - 1	KARNATAKA	06-03-2025 13:10	06-03-2025 13:30	00:20	0	115	0.00%	0.18%	53027.09	65241.44	Complete Outage of 220kV/66kV Exora SS, 220kV/66kV Vikas Tech and 220kV Bus-1 Outage at 220kV/66kV Malur SS of KPTCL: 220kV Malur SS was operating with split bus condition with 220kV Hoody Malur line feeding 220kV Malur Bus-1, 220kV/66kV Exora and 220kV/66kV Vikas Tech Park were being radially fed from 220kV Malur Bus-1. As per the reports submitted, the triggering incident was RN fault in 220kV Hoody Malur line. Tripping of this line led to loss of power supply to 220kV Malur Bus-1 which intrun led to complete outage of 220kV Exora SS and 220kV Vikas Tech Park.	220KV-HOODY-MALUR-1
5	GD - 1	KARNATAKA	07-03-2025 13:10	07-03-2025 13:33	00:23	0	344	0.00%	0.51%	54018.5	67121.19	Complete outage of 220kV/66kV Naganathpura SS, 220kV/66kV HSR SS, 220kV/66kV Koramangala SS, 220kV/66kV Nimhans SS of KPTCL: During antecedent conditions, 220kV EDC Nimhans, 220kV HSR Hoody, 220kV HSR EPID were under open condition. As per the reports submitted, the triggering incident was RY-N fault in 220kV HSR Mylasandra Line. At HSR end, the fault was sensed in zone-1 and the line tripped immediately. At Naganathpura end, the fault was picked up in zone-3 and the line was holding. At the same time, 220kV Mylasandra HSR line-1 tripped on zone-1 at Mylasandra end. Subsequently, 220kV Mylasandra HSR Line-2 and 220kV Mylasandra Naganathpura lines tripped on zone-2 at Mylasandra end. Tripping of all these lines led to complete outage of 220kV/66kV Naganathpura SS, 220kV/66kV HSR SS, 220kV/66kV Koramangala SS, 220kV/66kV Nimhans SS. ☹️	220KV-MYLASANDRA-HSR-1, 220KV-HSR-MYLASANDRA-2, 220KV-NAGNATHPURA-MYLASANDRA-2
6	GD - 1	TELANGANA	10-03-2025 16:02	10-03-2025 16:23	00:21	0.15	0	0.00%	0.00%	57458.33	66259.78	Complete Outage of 400kV/11kV Medaram LIS: During antecedent condition, 400kV Ramadugu Medaram line-2 was under outage due to relay testing works. Triggering incident was tripping of 400kV Ramadugu Medaram line-1 only at Medaram end due to suspected maloperation. Tripping of the only connected line resulted in the complete outage of 400kV/11kV Medaram LIS. During this event there was no pump load.	400KV-MEDARAM_GIS-RAMADUGU-1
7	GD - 1	KARNATAKA	11-03-2025 13:43	11-03-2025 16:48	03:05	0	60	0.00%	0.10%	52941.12	62755.02	Complete Outage of 220kV/110kV MK Hubli SS of KPTCL: 220kV/110kV MK Hubli SS is radially fed from 400kV/220kV Narendra_PG SS. Triggering incident was RY fault in 220kV MK Hubli Narendra_PG line-1 and 2 at a distance of 4.8km from Narendra_PG end due to fire under tower no. 19 and 20. Tripping of both connected lines resulted in the complete outage of 220kV/110kV MK Hubli SS.	220KV-NARENDRA-M K HUBLI-2, 220KV-NARENDRA-M K HUBLI-1
8	GD - 1	TAMILNADU	12-03-2025 09:59	12-03-2025 18:59	09:00	0	0	0.00%	0.00%	55152.84	65325.77	Complete Outage of 230kV/110kV ETPS Generating Station of TANTRANSCO: 230kV ETPS Power house was dismantled and the 230kV ETPS switch yard was being radially fed from 230kV ETPS Manali line. The 230kV ETPS Switch Yard consists of a 230kV/110kV ETPS Transformer and 4 no.s of 110kV feeders which are idle charged. As per the reports submitted, the triggering incident was an RY-N fault in 230kV ETPS Manali line at location no. 21&26\, At Manali end, the fault was sensed in zone-2 and line tripped after around 420ms. The line was holding at ETPS end. Tripping of the only connected line led to complete outage 230kV ETPS Power House.	230KV-ETPS-MANALI-1
9	GD - 1	TELANGANA	12-03-2025 10:21	12-03-2025 11:15	00:54	13	0	0.02%	0.00%	55531.66	65578.48	Complete Outage of 220kV Pulichintala PH of TGGENCO: As per the reports submitted, the LBB of 220kV bus mal operated at 220kV Pulichintala PH. Immediately, all elements connected to the 220kV Bus tripped and this led to complete outage of 220kV Pulichintala PH.	220KV-CHILLAKALLU-PULICHINTALA-1, 220KV-SITAPURAM-PULICHINTALA-1, PULICHINTALA - UNIT 2
10	GD - 1	KARNATAKA	14-03-2025 12:01	14-03-2025 12:29	00:28	0	408	0.00%	0.64%	51476.72	63895.46	Complete Outage of 220kV/66kV Yerrandahally SS, 220kV/66kV Jigani SS, 220kV/66kV Electronic City SS: The triggering incident was R-N fault in 220kV Somanahally Mylasandra Line-1 and the line tripped. After 3S, R-N fault was observed in 220kV Somanahally Electronic city line and the line tripped. Subsequently, 220kV Somanahally Mylasandra Line-2 and 220kV Electronic city Shobha dreams lines tripped on over loading. Tripping of all these lines led to loss of power supply to 220kV/66kV Yerrandahally SS, 220kV/66kV Jigani SS, 220kV/66kV Electronic City SS.	220KV-SOMANAHALLI-ELECTRONIC_CITY-1, 220KV-SHOBHA_DREAMS-ELECTRONIC_CITY-1, 220KV-SOMANAHALLI-MYLASANDRA-1, 220KV-SOMANAHALLI-MYLASANDRA-2

Details of Grid Events during the Month of March 2025 in Southern Region



Sl No.	Category of Grid Event	Affected Area	Time and Date of occurrence of Grid Event	Time and Date of Restoration	Duration (Hrs: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 for GI-2/ GD-1 to GD-5)					Generation Loss(MW)	Load Loss (MW)	% Generation Loss (MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
11	GD - 1	KARNATAKA	15-03-2025 12:42	15-03-2025 12:54	00:12	0	457	0.00%	0.71%	52855.46	64594.85	Complete Outage of 220kV/66kV Yerrandahally SS, 220kV/66kV Jigani SS, 220kV/66kV Electronic City SS: 220 kV Somanahalli - Mylasandra line 1 & 2 tripped at 12:42 Hrs and 12:45 hrs respectively at both ends on distance protection. At the same time 220kV Somanahalli - Khodays and 220kV Somanahalli- Keonics City lines tripped on operation of distance protection. This resulted in complete outage of 220kV/66kV Yerrandahally SS, 220kV/66kV Jigani SS, 220kV/66kV Electronic City SS.	220KV-SOMANAHALLI-ELECTRONIC_CITY-1, 220KV-SHOBHA_DREAMS-ELECTRONIC_CITY-1, 220KV-SOMANAHALLI-MYLASANDRA-1, 220KV-SOMANAHALLI-MYLASANDRA-2
12	GD - 1	ANDHRA PRADESH	17-03-2025 11:45	17-03-2025 11:54	00:09	0	157	0.00%	0.23%	54555.45	68741.33	Complete Outage of 220/132kV Koduru and Rajampet: At 11:25 Hrs, the 220kV Cuddapah-Rajampet line tripped due to a B-N fault. Following the tripping of the 220kV Cuddapah-Rajampet line, the Koduru and Rajampet section became radially connected to Renigunta. At 11:45 Hrs, the 220 kV Renigunta-Koduru line tripped due to a Y-B fault, with the fault sensed only at Renigunta in Z2 resulting in a 3-phase trip at Renigunta. This caused the complete outage of the 220/132 kV Koduru and Rajampet substations.	220KV-CUDDAPAH-RAJAMPET-1, 220KV-RENGUNTA-KODURU-1
13	GD - 1	KARNATAKA	19-03-2025 14:09	19-03-2025 14:25	00:16	0	126	0.00%	0.18%	53293.16	68849.46	Complete Outage of 220kV/66kV Exora SS, 220kV/66kV Vikas Tech and 220kV Bus-1 Outage at 220kV/66kV Malur SS of KPTCL: 220kV Malur SS was operating with split bus condition with 220kV Hoody Malur line feeding 220kV Malur Bus-1. 220kV/66kV Exora and 220kV/66kV Vikas Tech Park were being radially fed from 220kV Malur Bus-1. As per the reports submitted, the triggering incident was RN fault in 220kV Hoody Malur line. Tripping of this line led to loss of power supply to 220kV Malur Bus-1 which inturn led to complete outage of 220kV Exora SS and 220kV Vikas Tech Park.	220KV-HOODY-MALUR-1
14	GD - 1	TAMILNADU	19-03-2025 14:40	19-03-2025 14:55	00:15	0	161	0.00%	0.24%	52720.39	68053.5	Complete Outage of 230kV/110kV Veerapuram SS: During antecedent conditions, due to outage of 230kV Veerapuram SPKoil line and 230kV Veerapuram Cuddalore line 1& 2 on power regulation, 230kV/110kV Veerapuram SS was radially fed from 230kV Kalvindapattu Veerapuram line and 110kV Veerapuram SP Koil line-2. The triggering incident was RN fault in 230kV Kalvindapattu Veerapuram line and the line tripped. Subsequently, 110kV Veerapuram SP Koil line-2 tripped on overloading. Tripping of the only connected line resulted in complete loss of supply to 230kV/110kV Veerapuram SS.	230KV-KALVENDAPATTU-VEERAPURAM
15	GD - 1	KERALA	21-03-2025 20:08	21-03-2025 20:50	00:42	0	232	0.00%	0.43%	44566	53751	Complete Outage of 220kV/110kV Palakkad_KL SS of KSEB: As per the reports submitted, the triggering incident was Y-N fault in 220kV Madakathara Palakkad line. At both ends, fault was sensed in zone-1 and Y-pole opened. During A/R dead time, B-N fault was observed in 220kV Madakathara Palakkad line. During this fault DEF protection in 220kV Elapully Palakkad line-1,2&3 at Elupally end. DT was sent to Palakkad end and the lines tripped. Tripping of all these lines led to complete outage of 220kV/110kV Palakkad_KL SS.	220KV-ELAPULLY-PALAKKAD(KL)-2, 220KV-ELAPULLY-PALAKKAD(KL)-3, 220KV-ELAPULLY-PALAKKAD(KL)-1, 220KV-PALAKKAD-MADAKATHARA-1
16	GD - 1	TAMILNADU	23-03-2025 12:44	23-03-2025 16:06	03:22	285	0	0.57%	0.00%	49653.5	60201.42	Complete Outage of 400kV SEPC Generating Station: During antecedent conditions, 400kV SEPC Ottapidaram Line-1 was under emergency shutdown for R-phase CVT replacement. As per the reports submitted, while attending DC leakage in 400kV SEPC Ottapidaram line-1 at Ottapidaram end, DT was sent to SEPC(both in Main-1 and Main-2) end and the line tripped only at SEPC end. Tripping of the only connected line led to complete outage of 400kV SEPC Generating station. Subsequently, SEPC Generating Unit-1 tripped on loss of evacuation.	400KV-OTTAPIDARAM-SEPC-2, SEPC - 400KV - Bus 1, SEPC - 400KV - Bus 2, 400KV/21KV SEPC-GT-1, SEPC - UNIT 1
17	GD - 1	ANDHRA PRADESH	28-03-2025 17:07	28-03-2025 17:50	00:43	163	0	0.33%	0.00%	49644.09	65243.91	Complete Outage of 220kV Upper Sileru PH of APGENCO: As per the reports submitted, the triggering incident was LBB operation while deparallelising Upper Sileru Unit-1. Immediately, all elements connected to 220kV Bus-1 and Bus-2 tripped. This led to complete outage of 220kV upper Sileru PH.	220KV-DONKARAYI-UPPER_SILERU-1, 220KV-PENDURTHI-UPPER_SILERU-1, UPPER_SILERU - 220KV - Bus 1, UPPER_SILERU - 220KV - Bus 2
18	GD - 1	KARNATAKA	28-03-2025 17:59	28-03-2025 18:22	00:23	0	131	0.00%	0.22%	48157	58781	Complete Outage of 220kV/66kV Nagatpura SS of KPTCL: As per the reports submitted, the triggering incident was RYB fault in 66kV/11kV Transformer-1 of 220kV/66kV Nagatpura SS. The fault was cleared by tripping of 220kV Nagatpura Mylasandra line and 220kV Nagatpura HSR line. Tripping of both lines led to complete outage of 220kV/66kV Nagatpura SS.	220KV Nagatpura Mylasandra line 220KV Nagatpura HSR line.
19	GI-1	KARNATAKA	12-03-2025 07:26	12-03-2025 07:49	00:23	0	0	0.00%	0.00%	47861.32	61295.91	Tripping of 220kV Bus-2 of Narendra_PG SS: As per the reports submitted, the triggering incident was maloperation of LBB initiation in 211 bay (corresponds to 220kV Narendra MK Hubli-1) line due to auxiliary relay maloperation. After 200ms, LBB trip operated and all elements connected to 220kV Narendra Bus-2 tripped.	220KV-NARENDRA-MAHALINGAPURA-2, 220KV-NARENDRA-M K HUBLI-1, 220KV-NARENDRA-GHATPRABHA-2, NARENDRA - 220KV - Bus 2, 400KV/220KV NARENDRA-ICT-1
20	GI-1	TAMILNADU	12-03-2025 10:32	12-03-2025 11:06	00:34	0	0	0.00%	0.00%	55331.02	65690.7	Tripping of 230kV Bus-1 and Bus-2 of 400kV/230kV SV Chatram SS of TANTRANSOCO: As per the reports submitted, the triggering incident was B-phase CT failure in 230kV Bus coupler of 400kV/230kV SV Chatram SS. At SV Chatram, both 230kV Bus-1 and Bus-2 BBP operated and all elements connected to the 230kV Buses tripped except 400kV/230kV SV Chatram ICT-2 as 96 relay of the ICT-2 failed to operate. After around 500ms, 400kV/230kV SV Chatram ICT-2 tripped on operation of Bucholz relay. This led to loss of power supply to 230kV Bus-1 and Bus-2 of 400kV/230kV SV Chatram SS.	400KV/230KV SUNGAVARACHATRAM-ICT-1, 400KV/230KV SUNGAVARACHATRAM-ICT-2, 230KV-ORAGADAM-SUNGAVARACHATRAM-1, 230KV-ORAGADAM-SUNGAVARACHATRAM-2, 230KV-MAMBAKAM-SUNGAVARACHATRAM-1, 230KV-NOKIA-SUNGAVARACHATRAM-1
21	GI-1	KARNATAKA	18-03-2025 05:47	18-03-2025 06:28	00:41	0	82	0.00%	0.14%	43247.77	57217.73	Tripping of 220kV Bus-1 of 220kV/110kV Hubli SS: The triggering incident was B-ph jumper failure on the 220kV Hubli-Bidnal line-1 line between CT and wave trap which led to Z1 fault at Bidnal and a Z2 fault at Hubli end. The fault at Bidnal resulted in a 3-phase trip, while at Hubli, the absence of carrier signal led to a Z2 time trip. During the same time Bus-1 BBP tripped at Hubli, which led to the tripping of 220kV Bus-1 of 220kV/110kV Hubli SS.	220KV-HUBLI-BIDNAL-1, 220KV-NAGIHERI-HUBLI-1, 220KV-HUBLI-NARENDRA_KP-1

Details of Grid Events during the Month of March 2025 in North 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 for GI 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 I	Tezu and Namsai areas of Arunachal Pradesh Power System	10-03-2025 09:58	10-03-2025 10:49	00:51	0	3	0.00%	0.15%	1672	2065	Tezu and Namsai areas of Arunachal Pradesh Power System were connected with rest of NER Grid through 132 kV Roing – Tezu line. At 09:58 Hrs of 10-03-2025, 132 kV Roing – Tezu line tripped. Due to tripping of this element, Tezu and Namsai areas of Arunachal Pradesh Power System got isolated from NER Grid and collapsed due to no source available in these areas. Power supply was extended to Tezu and Namsai areas of Arunachal Pradesh Power System by charging 132 kV Roing – Tezu line at 10:49 Hrs of 10-03-2025.	132 kV Roing-Tezu Line
2	GD I	Tipaimukh area of Manipur Power System	13-03-2025 09:36	13-03-2025 10:40	01:04	0	1	0.00%	0.05%	1515	1824	Tipaimukh area of Manipur Power System was connected with rest of NER Grid through 132kV Aizawl-Tipaimukh and 132kV Jiribam-Tipaimukh lines. At 09:37 Hrs of 13-03-2025, 132 kV Aizawl-Tipaimukh and 132 kV Jiribam-Tipaimukh lines tripped. Due to tripping of these elements, Tipaimukh area of Manipur Power System got isolated from NER Grid and collapsed due to no source available in this area. Power supply was extended to Tipaimukh area of Manipur Power System by charging 132kV Aizawl-Tipaimukh line at 10:40 Hrs of 13-03-2025.	132 kV Aizawl-Tipaimukh and 132 kV Jiribam-Tipaimukh lines
3	GD I	Tipaimukh area of Manipur Power System	15-03-2025 12:35	15-03-2025 14:03	01:28	0	1	0.00%	0.05%	1301	1903	Tipaimukh area of Manipur Power System was connected with rest of NER Grid through 132kV Aizawl-Tipaimukh and 132kV Jiribam-Tipaimukh lines. At 12:35 Hrs of 15-03-2025, 132 kV Aizawl-Tipaimukh and 132 kV Jiribam-Tipaimukh lines tripped. Due to tripping of these elements, Tipaimukh area of Manipur Power System got isolated from NER Grid and collapsed due to no source available in this area. Power supply was extended to Tipaimukh area of Manipur Power System by charging 132 kV Aizawl-Tipaimukh line at 14:03 Hrs of 15-03-2025.	132 kV Aizawl-Tipaimukh and 132 kV Jiribam-Tipaimukh lines
4	GD I	Tezu and Namsai areas of Arunachal Pradesh Power System	18-03-2025 15:56	18-03-2025 21:14	05:18	0	8	0.00%	0.39%	1740	2047	Tezu and Namsai areas of Arunachal Pradesh Power System were connected with rest of NER Grid through 132 kV Roing – Tezu line. At 15:56 Hrs of 18-03-2025, 132 kV Roing – Tezu line tripped. Due to tripping of this element, Tezu and Namsai areas of Arunachal Pradesh Power System got isolated from NER Grid and collapsed due to no source available in these areas. Power supply was extended to Tezu and Namsai areas of Arunachal Pradesh Power System by charging 132 kV Roing – Tezu line at 21:14 Hrs of 18-03-2025.	132 kV Roing – Tezu line
5	GD I	Tuirial S/S of NEEPCO & Kolasib and Bairabi areas of Mizoram Power system	20-03-2025 14:24	20-03-2025 15:26	01:02	0	6	0.00%	0.30%	1531	2026	Kolasib area of Mizoram Power System was connected with rest of NER Grid through 132 kV Kolasib-Badarpur and 132 kV Kolasib – Aizawl lines. Tuirial and Bairabi S/S are connected with Kolasib via 132 kV Kolasib – Tuirial line and 132 kV Kolasib – Bairabi line. At 14:24 Hrs of 20-03-2025, 132 kV Aizawl-Kolasib and 132kV Badarpur-Kolasib lines tripped. Due to tripping of these elements, Kolasib, Tuirial and Bairabi areas of Mizoram Power system got isolated from NER grid and collapsed due to no source available in these areas. Power supply was extended to Kolasib area by charging 132 kV Aizawl-Kolasib line at 15:26 Hrs of 20-03-2025.	132 kV Aizawl-Kolasib and 132kV Badarpur-Kolasib lines

Details of Grid Events during the Month of March 2025 in North 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 for GI 2/ GD-1 to GD-5)					Generation Loss(MW)	Load Loss (MW)	% Generation Loss (MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
6	GD I	132 kV Kameng S/S of NEEPCO & Khupi and Seppa areas of Arunachal Pradesh Power system	23-03-2025 18:18	23-03-2025 19:41	01:23	0	3	0.00%	0.11%	2794	2695	132 kV Kameng S/S of NEEPCO and Khupi and SEPPA areas of Arunachal Pradesh Power System were connected with rest of NER Grid through 132 kV Tenga-Khupi line and 132 kV Kameng-Khupi line and 400/132 kV ICT at Kameng. At 18:18 Hrs of 23.03.2025, 400/132 kV ICT at Kameng and 132 kV Tenga-Khupi line tripped. Due to these trippings, 132 kV Kameng S/S, Khupi and Seppa areas resulting in grid disturbance at 132 kV Kameng S/S of NEEPCO and Khupi & Seppa areas of Arunachal Pradesh got isolated from NER Grid and collapsed due to no source available in these areas. Power supply was restored to Khupi area of Arunachal Pradesh Power System by charging 132kV Tenga-Khupi line at 19:41 Hrs of 23.03.2025.	400/132 kV ICT at Kameng and 132 kV Tenga-Khupi line
7	GD I	Mawlyndep area of Meghalaya Power System	23-03-2025 12:09	23-03-2025 12:32	00:23	0	12	0.00%	0.62%	1319	1946	Mawlyndep area of Meghalaya Power System was connected with rest of NER Grid through 132 kV NEHU-Mawlyndep & 132 kV Mawlyndep-Mustem lines. At 12:09 Hrs of 23-03-2025, 132 kV Mawlyndep-Mustem and 132 kV Mawlyndep-NEHU lines tripped. Due to tripping of these elements, Mawlyndep area of Meghalaya Power system got isolated from NER grid and collapsed due to no source available in this area. Power supply was extended to Mawlyndep area of Meghalaya Power System by charging 132 kV Mawlyndep-NEHU line at 12:32 Hrs of 23-02-2025.	132 kV Mawlyndep-Mustem and 132 kV Mawlyndep-NEHU lines
8	GD I	Loktak S/S of NHPC and radially connected Renggang area of Manipur Power System	24-03-2025 11:38	24-03-2025 13:05	01:27	0	1	0.00%	0.05%	1369	2106	Loktak S/S of NHPC and Renggang area of Manipur power system were connected with rest of NER grid through 132 kV Loktak-Jiribam, 132 kV Loktak-Imphal(PG), 132 kV Loktak-Ningthoukhong and 132 kV Loktak-Renggang lines. Prior to the event, 132 kV Loktak-Imphal(PG) line was under planned shutdown and all units of Loktak were withdrawn as per schedule. Also, 132 kV Jiribam(MA)-Renggang line was under outage since 17-11-2023. At 11:38 Hrs of 24.03.2025, 132 kV Loktak-Jiribam, 132 kV Loktak-Ningthoukhong and 132 kV Loktak-Renggang lines tripped resulting in blackout of Loktak S/S of NHPC and Renggang area of Manipur. Power supply was extended to Loktak by charging 132 kV Loktak - Jiribam line at 13:05 Hrs of 24-03-2025.	132 kV Loktak-Jiribam, 132 kV Loktak-Ningthoukhong and 132 kV Loktak-Renggang lines
9	GD I	Gohpur area of Assam power system	26-03-2025 17:38	26-03-2025 18:52	01:14	0	0	0.00%	0.00%	2500	2890	Gohpur area of Assam power system was connected with the rest of the NER grid through 132 kV Gohpur-Nirjuli, 132 kV Gohpur-BNC(PG), 132 kV Gohpur-Itanagar, 132 kV Gohpur-North Lakhimpur D/C lines & 132 kV Gohpur-BNC(AS) D/C lines. Prior to the event, 132 kV BNC(PG) - Gohpur line was under emergency shutdown. Also, Assam requested for shutdown of 132 kV Bus section of Gohpur S/S, hence opening of following lines along with Bus Sectionalizer: 1. 132 kV Nirjuli- Gohpur Line 2. 132 kV Chimpur (Itanagar)- Gohpur Line (LULO) At 17:38 Hrs of 26.03.2025, 132 kV Gohpur Bus tripped during opening of the bus sectionalizer due to flashover in CB of bus sectionalizer resulting in tripping of 132 kV Gohpur-BNC(AS) D/C and 132 kV Gohpur-North Lakhimpur D/C lines. This led to blackout of 132 kV Gohpur S/S. Power supply was extended to Gohpur SS by charging 132 kV Gohpur - Nirjuli Line at 18:52 Hrs of 26-03-2025.	132 kV Gohpur-BNC(AS) D/C and 132 kV Gohpur-North Lakhimpur D/C lines
10	GD I	Renggang area of Manipur power system	29-03-2025 10:52	29-03-2025 11:13	00:21	0	1	0.00%	0.04%	1369	2427	Renggang area of Manipur Power System was connected with rest of NER Grid through 132 kV Loktak-Renggang line. Prior to the event, 132 kV Jiribam-Renggang line was under long outage since 18:18 Hrs of 17.11.2023. At 10:52 Hrs of 29-03-2025, 132 kV Loktak-Renggang line tripped. Due to tripping of this element, Renggang area of Manipur Power System was isolated from NER Grid and collapsed due to no source available in this area. Power supply is restored in Renggang area of Manipur Power System by charging 132 kV Loktak-Renggang line at 11:13 Hrs of 29-03-2025.	132 kV Loktak-Renggang line
11	GD I	Thoubal(Old) area of Manipur power system	29-03-2025 14:27	29-03-2025 17:45	03:18	0	11	0.00%	0.44%	1484	2475	Thoubal(Old) area of Manipur power system was connected to rest of NER grid through 132 kV Thoubal(New)-Thoubal(Old) & 132 kV Thoubal(Old)-Kakching lines. At 14:27 Hrs 29-03-2025, due to wildfire near Thoubal S/S, 132 kV Thoubal(Old)-Kakching, 132 kV Thoubal(New) - Kongba I and 132 kV Thoubal(New) - Kakching lines tripped. Also, 400/132 kV ICT at Thoubal and 132 kV Thoubal(New) -Thoubal(Old) lines were hand tripped due to which blackout at Thoubal(Old) S/S occurred. Power was extended to Thoubal(Old) S/S by charging 400/132 kV ICT at Thoubal at 17:45 Hrs of 29-03-2025.	132 kV Thoubal(Old)-Kakching, 132 kV Thoubal(New) - Kongba I, 132 kV Thoubal(New) - Kakching lines, 400/132 kV ICT at Thoubal and 132 kV Thoubal(New) -Thoubal(Old) lines
12	GD I	Thoubal(Old) area of Manipur power system	29-03-2025 21:56	30-03-2025 00:31	02:35	0	8	0.00%	0.29%	2190	2775	Thoubal(Old) area of Manipur power system was connected to rest of NER grid through 132 kV Thoubal(New)-Thoubal(Old) & 132 kV Thoubal(Old)-Kakching lines. Prior to the event, 132 kV Thoubal(New) - Kongba I, 132 kV Thoubal(New) - Kakching I and 132 kV Thoubal(Old) - Kakching lines tripped at 14:27 Hrs of 29-03-2025. At 21:56 Hrs, 132 kV Thoubal (New) - Kongba II, 132 kV Thoubal (New) -Thoubal(Old) lines and 315 MVA, 400/132 kV ICT at Thoubal were hand tripped due to wildfire near the Thoubal S/S of Manipur Power system due to which blackout at Thoubal(Old) S/S occurred. Power supply is restored in Thoubal(Old) area of Manipur Power System by charging 132 kV Thoubal (New) - Thoubal(Old) line at 00:31 Hrs of 30-03-2025.	132 kV Thoubal (New) - Kongba II, 132 kV Thoubal (New) -Thoubal(Old) lines and 315 MVA, 400/132 kV ICT at Thoubal