

Details of Grid Events during the Month of Feb 2025 in Northern Region



Sl No.	Category of Grid Event (GI for GI 2/ GD-1 to GD-5)	Affected Area	Time and Date of occurrence of Grid Event	Time and Date of Restoration	Duration (HEMM)	Loss of generation / loss of load during the Grid Event		% Loss of generation / loss of load vs. 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	GI-1	Uttarakhand	01-02-2025 09:01	01-02-2025 10:57	01:56	0	0	0.000	0.000	50216	60207	<p>i)220KV Khodri(UK) generating station has 4 generating units of 30MW each and has double main bus scheme. The power is evacuated mainly through 220KV Khodri(UK)-Majri(HP) (UK) Ckt-1 & 2, 220KV Saharanpur(UP)-Khodri(UK) (UP) Ckt, 220KV Khodri – Saraswan Ckt, 220KV Khodri –Jhaja Ckt and 220KV Khodri – Chibro Ckt-1 & 2.</p> <p>ii)As reported, at 09:01 hrs, while stopping of 30MW Unit-4 at Khodri(UK), its R-phase pole of CB stucked and the trip coil of R-phase burnt. Due to this, pole discrepancy operated which as per logic, led to LBB protection operation resulting in tripping of 220 KV Khodri(UK)-Majri(HP) (UK) Ckt-2, 220 KV Saharanpur(UP)-Khodri(UK) (UP) Ckt and 220 KV Khodri - Chibro (UK) Ckt-2.</p> <p>iii)As per PMU at Dehradun(PG), no fault was found in the system.</p> <p>iv)As per SCADA, no change in demand/generation in Uttarakhand control area was observed.</p> <p>v)As reported by SLDC-UK, testing of Generator CB of Unit-4 by expert service engineer has been carried out and fault has been rectified. As remedial action taken, the stuck pole of R-phase was opened manually and the control valve assembly was replaced with a new one.</p>	<p>i)220 KV Saharanpur(UP)-Khodri(UK) (UP) Ckt</p> <p>ii)220 KV Khodri(UK)-Majri(HP) (UK) Ckt-2</p> <p>iii)220 KV Khodri - Chibro (UK) Ckt-2</p>
2	GI-2	Himachal Pradesh	03-02-2025 03:57	03-02-2025 05:11	01:14	157	0	0.600	0.000	26154	36145	<p>i)220KV Bhakra(BBMB) generating station has 6 generating units of 157MW each. Unit-1, VI and VII were connected to Bus-1 of 220KV along with 220 KV Bhakra_R-Ganguwal (BB) Ckt-2 and 220 KV Bhakra_R(BB)-Mahilpur(PS) (PS) Ckt-2.</p> <p>ii)During the antecedent condition only Bhakra HPS - UNIT 6 was operational and generating 157MW. 220 KV Bhakra_R-Ganguwal (BB) Ckt-2 and 220 KV Bhakra_R(BB)-Mahilpur(PS) (PS) Ckt-2 were carrying 1 MW and 48MW of load respectively.</p> <p>iii)As reported, at 03:57 hrs, R-N phase to earth fault occurred in 220 KV Bhakra- Jamalpur Ckt-2. At the same time Bus Bar protection for 220KV Bus-1 operated. This led to tripping of 220KV Bus-1, 220 KV Bhakra_R-Ganguwal (BB) Ckt-2, 220 KV Bhakra_R(BB)-Mahilpur(PS) (PS) Ckt-2 and 157 MW Bhakra HPS - UNIT 6 (Details Awaited)</p> <p>iv)As per PMU at Bhakra(BBMB), R-N phase to earth fault was found in the system.</p> <p>v)As per SCADA, approx 157 MW hydro generation loss is observed at 220 KV Bhakra Dam S/S.</p>	<p>i)220 KV Bhakra_R-Ganguwal (BB) Ckt-2</p> <p>ii)220KV Bus 1 at Bhakra_R(BB)</p> <p>iii)220 KV Bhakra_R(BB)-Mahilpur(PS) (PS) Ckt-2</p> <p>iv)157 MW Bhakra HPS - UNIT 6</p>
3	GI-2	Himachal Pradesh	03-02-2025 19:35	03-02-2025 23:24	03:49	177	0	0.412	0.000	43002	57934	<p>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.</p> <p>ii)During antecedent condition, only 50MW Unit-1 at Sainj HEP(HP) was running (generating approx. ~45MW) and 130MW Unit-4 at Parbati-3 HEP(NHPC) (generating approx. ~132MW).</p> <p>iii)As reported, at 06:31 hrs, R-N fault occurred on 400 KV Parbati_2(NH)-Sainj (HP) (PKTCL) Ckt-1 in Z-2 and fault current was 2.92 KA from Sainj end.</p> <p>iv)As per DR of the line of Parbati3 end, fault was sensed in Z-1 and tripping command to R-ph CB was given. However, R-ph pole failed to open leading to operation of LBB protection. This led to tripping of all the elements connected to the Bus (Tripping details awaited) and complete blackout of 400KV Parbati-3 s/stn occurred.</p> <p>v)As per PMU, R-N fault with delayed clearance of fault in 400msec is observed.</p> <p>vi)During this event, Approx 132 MW hydro generation loss is observed at Parbati-III and 45 MW hydro generation loss is observed at Sainj. (As per SCADA).</p>	<p>i)400 KV Parbati_2(NH)-Sainj(HP) (PKTCL) Ckt-1</p> <p>ii)400 KV Parbati_3(NH)-Parbati Pooling Banala(PG) (PKTCL) Ckt-1</p> <p>iii)400 KV Parbati_3(NH)-Sainj(HP) (PKTCL) Ckt-1</p>
4	GI-1	Himachal Pradesh	05-02-2025 18:45	05-02-2025 18:56	00:11	427	0	0.882	0.000	48394	59037	<p>i)220KV Bhakra(BBMB) generating station has 6 generating units of 157MW each. Unit-1, VI and VII were connected to Bus-1 of 220KV along with 220 KV Bhakra_R-Ganguwal (BB) Ckt-2 and 220 KV Bhakra_R(BB)-Mahilpur(PS) (PS) Ckt-2.</p> <p>ii)During the antecedent condition only Bhakra HPS - UNIT 6 and 7 were operational and generating 156MW and 157MW respectively. 220 KV Bhakra_R-Ganguwal (BB) Ckt-2 and 220 KV Bhakra_R(BB)-Mahilpur(PS) (PS) Ckt-2 were carrying 33 MW and 110MW of load respectively.</p> <p>iii)As reported, at 03:57 hrs, Bus Bar protection for 220KV Bus-1 operated. This led to tripping of 220KV Bus-1, 220 KV Bhakra_R-Ganguwal (BB) Ckt-2, 220 KV Bhakra_R(BB)-Mahilpur(PS) (PS) Ckt-2 and 157 MW Bhakra HPS - UNIT 6 and 7(Details Awaited)</p> <p>iv)As per PMU at Bhakra(BBMB), Y-N phase to earth fault was found in the system.</p> <p>v)As per SCADA, approx 427 MW hydro generation loss is observed at 220 KV Bhakra Dam S/S.</p>	<p>i)220 KV Bhakra_R-Ganguwal (BB) Ckt-2</p> <p>ii)220KV Bus 1 at Bhakra_R(BB)</p> <p>iii)220 KV Bhakra_R(BB)-Mahilpur(PS) (PS) Ckt-2</p> <p>iv)157 MW Bhakra HPS - UNIT 7</p>
5	GI-2	Rajasthan	08-02-2025 20:54	08-02-2025 21:40	00:46	0	170	0.000	0.318	40180	53479	<p>i)800/220KV Ajmer substation has One and half breaker scheme in 400KV and Double Main & Transfer bus scheme in 220KV system.</p> <p>ii)During antecedent condition, 400 KV AJMER-BHILWARA (RS) CKT-2 was carrying 23MW, 400/220 KV 315 MVA ICT 1 & 3 were loaded 214 and 223MW each.</p> <p>iii)As reported, at 20:54 hrs, B-N fault occurred on 400 KV AJMER-BHILWARA (RS) CKT-2. As per DR/ EL, two B-N faults occurred. The fault was detected in Z1 and the fault current was 3.88KA.</p> <p>iv)However, at the same time 400/220KV ICT-1 and ICT-3 tripped. As per DR/EL of ICT-1 & 3, 50-N (High Set Overcurrent Earth fault) and 67-N (Directional Overcurrent earth Fault) operated respectively.</p> <p>v)SLDC Rajasthan confirmed that due to low current relay settings of 50N and 67N on ICT 1 & 3, both elements picked up the current earth fault of 400 KV AJMER-BHILWARA (RS) CKT-2 and tripped. RVPNL has confirmed that relay settings have been corrected.</p> <p>vi)During this event, approx 170 MW of demand change was observed in Rajasthan control area. (As per SCADA).</p>	<p>i)800/220 KV 315 MVA ICT 1 AT AJMER(RS)</p> <p>ii)800/220 KV 315 MVA ICT 3 AT AJMER(RS)</p> <p>iii)800 KV AJMER-BHILWARA (RS) CKT-2</p>
6	GI-2	Uttar Pradesh	09-02-2025 00:54	09-02-2025 01:57	01:03	0	0	0.000	0.000	33452	40621	<p>i)800/220/132KV Muradnagar-New(UP) has one and half breaker scheme at 400KV level and double main and transfer bus scheme at 220KV level.</p> <p>ii)As reported, at 00:54 hrs, 400KV Muradnagar_2-Mathura (UP) Ckt tripped on Y-N phase to earth fault with fault current of 4.084KA from Muradnagar_2 end and fault clearing time of 287 ms, zone-1 distance protection operated (as per DR at Muradnagar_2 end) and DT received at Mathura end (as reported).</p> <p>iii)Due to delayed opening of CB at Muradnagar_2 end of 400KV Muradnagar_2-Mathura (UP) Ckt, LBB protection operated and both main and tie Cbs at Muradnagar_2 end of 400 KV MURADNAGAR_2-MATHURA (UP) Ckt-1 opened and all the 400KV Cbs connected at 400KV Bus-1 of Muradnagar_2 tripped. DT received at remote ends (as reported).</p> <p>iv)As per PMU at Muradnagar1(UP), Y-N phase to earth fault with delayed fault clearing time of 280ms is observed.</p> <p>v)As per SCADA, no change in demand is observed in UP control area.</p>	<p>i)800 KV MURADNAGAR_2-MATHURA (UP) Ckt-1</p> <p>ii)800KV BUS 1 AT MURADNAGAR_2(UP)</p>
7	GI-1	Haryana	11-02-2025 21:13	11-02-2025 23:20	02:07	0	112	0.000	0.216	39527	51916	<p>i)220KV Hissar Sub-station has double main bus system.</p> <p>ii)During antecedent condition, 220 KV Hissar IA(HV) – Narwana Ckt, 220 KV Hissar IA – Masudpur Ckt 1 & 2, 220/132 KV 100 MVA ICT-1 & 160 MVA ICT-2 were connected to 220KV Bus-1 at Hissar IA(HV) and 220 KV Hissar(PG)-Hissar IA(HV) (PG) Ckt-1 & 2 and 220 KV Hissar(BB)-Hissar IA(HV) (HVPNL) Ckt-1 & 2 were connected to 220KV Bus-2 at Hissar IA(HV). 220 KV Bus Coupler at Hissar IA(HV) was in open condition.</p> <p>iii)As reported, at 21:13hrs, Y-phase CT of 220 KV Hissar(BB)-Hissar IA(HV) (BBMB) Ckt-2 got damaged with a heavy blast which caused collateral damage to 220KV L&E Isolator.</p> <p>iv)220 KV Hissar(BB)-Hissar IA(HV) (BBMB) Ckt-2 tripped on distance protection operation (zone-1, fault distance=0 km from Hissar IA end; zone-2, fault current=5.18KA and fault distance=4.06km from Hissar(BB)).</p> <p>v)During the same time, busbar protection operated at 220KV Bus-2 at Hissar IA(HV) end and all the elements connected to Bus-2 tripped.</p> <p>vi)As per PMU at Hissar(PG), Y-N phase to earth fault with fault clearing time of 80ms is observed.</p> <p>vii)As per SCADA, change in demand of approx. 112MW was observed in Haryana control area.</p>	<p>i)220 KV Hissar(BB)-Hissar IA(HV) (BBMB) Ckt-2</p> <p>ii)220 KV Hissar(BB)-Hissar IA(HV) (HVPNL) Ckt-1</p> <p>iii)220 KV Hissar(PG)-Hissar IA(HV) (PG) Ckt-2</p> <p>iv)220 KV Hissar(PG)-Hissar IA(HV) (PG) Ckt-1</p> <p>v)220 KV Hissar IA(HV) Bus-2</p>

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						Generation Loss(MW)	Load Loss (MW)	% Generation Loss (MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
8	GD-1	Delhi	45703.39931	45703.41667	91406.017	0	194	0	0.298825	54149	64921	<p>i)220kV Narela(DTL) S/s has double main bus arrangement at 220kV level. 220/132kV 50MVA ICT-1 and 100MVA ICT-2 at Narela(BB) are connected on the same extended Bus of 220kV Narela(DTL).</p> <p>ii)During antecedent condition, 220 KV Panipat(BB)-Narela(DV) (BBMB) Ckt-1, 2 & 3, 220 KV Delhi RR(BB)-Narela(DV) (BBMB) Ckt-1& 2 and 220/66kV 100 MVA ICT-1, 2 and 3 at Narela(DTL) were connected to 220kV Bus-1 at Narela(DTL) and 220 KV Mandola(PG)-Narela(DV) (DTL) Ckt-1 & 2, 220 KV DSIDC Bawana-Narela(DV) (DTL) Ckt-1 & 2 and 220/132kV 50MVA ICT-1 and 100MVA ICT-2 at Narela(BB) were connected to 220kV Bus-2 at Narela(DTL). 220kV Bus coupler at Narela(DTL) was in OFF position.</p> <p>iii)As reported, sequence of event is as follows: a.As 09:19 hrs, both CBs at 220kV side of 220/132kV 50MVA and 100 MVA ICT-1 & 2 at Narela(BB) were manually opened for 220kV Bus Isolator changeover operation from Bus-2 to Bus-1. b.As 09:30 hrs, 89A Bus-1 Isolator of 220/132kV 100MVA ICT-2 at Narela(BB) was closed. c.Since the 220kV Bus Coupler CB at Narela(DTL) was already in OFF position since 08.09hrs, the said closure of 89A Isolator with 89B Isolator already closed of 220/132kV 100MVA ICT-2 at Narela(BB) resulted in a position to function as a 220kV Bus Coupler. d.As 09:34 hrs, 89B Bus-2 Isolator of 220/132kV 100MVA ICT-2 at Narela(BB) was tried to open, but the operation could not be done completely due to 89B Isolator struck in between and heavy arcing flames evolved due to said ON load 89B Isolator opening operation. e.As caused ionization in air around 89B Isolator of 220/132kV 100MVA ICT-2 at Narela(BB) and R-B-N double phase to earth fault occurred due to arcing via Isolator structure. f.As this resulted in zone-2 busbar protection operation (as confirmed from DR) and all the elements connected to 220kV Bus-2 at Narela(DTL) tripped. g.Since 89B Isolator opening operation was not complete, fault continued to be fed from Bus-1 through 220 KV Panipat(BB)-Narela(DV) (BBMB) Ckt-1, 2 & 3 via 89A Bus-1 Isolator of 220/132kV 100MVA ICT-2 at Narela(BB) to faulty 89B Bus-2 Isolator. This led to zone-1 busbar protection operation (as confirmed from DR) and all the elements connected to 220kV Bus-1 at Narela(DTL) also tripped and complete blackout occurred at 220kV Narela(DTL). iv)As per DR at Narela(DTL), Zone 2 Bus Bar protection operated followed Zone 1 Bus Bar protection operation. v)As per PMU at Maharanji Bagh(PG), Y-N phase to earth fault followed by Y-B phase to phase fault with fault clearing time of 120msec and 80msec is observed. vi)As per SCADA, change in demand of approx. 58 MW is observed in Delhi control area. However, SLDC-Delhi has reported load loss of approx. 194 MW.</p>	<p>i)220 KV Panipat(BB)-Narela(DV) (BBMB) Ckt-1, 2 & 3 ii)220 KV Mandola(PG)-Narela(DV) (DTL) Ckt-1 & 2 iii)220 KV Delhi RR(BB)-Narela(DV) (BBMB) Ckt-1& 2 iv)220 KV DSIDC Bawana-Narela(DV) (DTL) Ckt-1 & 2 v)220 kv Bus-1 and Bus-2 at Narela(DTL) vi)220/66kV 100 MVA ICT-1, 2 and 3 at Narela(DTL)</p>
9	GD-1	Rajasthan	15-02-2025 06:55	15-02-2025 07:56	01:01	228	0	0.496	0.000	45992	54927	<p>i)Generation of 220kV AHEJ4L(IP) station evacuates through 220 KV Adani Renew Park SL_FGARH_FBTL (AREPRL)-AHEJ4L PSS 4 HB_FGRAH_FBTL (AHEJ4L) (AREPRL) Ckt. During antecedent condition, at 220kV AHEJ4L PSS 4 station was generating approx. 228 MW (as per PMU).</p> <p>ii)As reported, at 06:55hrs, transient B-N phase to earth fault occurred at 220 KV Adani Renew Park SL_FGARH_FBTL (AREPRL)-AHEJ4L PSS 4 HB_FGRAH_FBTL (AHEJ4L) (AREPRL) Ckt and line successfully auto-reclosed.</p> <p>iii)However, during the same time, 220/33 kv 150 MVA ICT 1 and 2 at AHEJ4L PSS 4 HB_FGRAH_FBTL (AHEJ4L) tripped (Exact reason and nature of protection operated yet to be shared) which led to complete blackout out of 220kV AHEJ4L PSS4(IP) S/s.</p> <p>iv)As per PMU at Fatehgarh_2(PG), B-N phase to earth fault (voltage dipped upto 0.87 p.u.) is observed with fault clearing time of 120ms.</p> <p>v)As per PMU at AWPS2(IP), wind generation loss of approx. 228 MW is observed at AHEJ4L PSS4(IP).</p>	<p>i)220/33 kv 150 MVA ICT 1 at AHEJ4L PSS 4 HB_FGRAH_FBTL (AHEJ4L) ii)220/33 kv 150 MVA ICT 2 at AHEJ4L PSS 4 HB_FGRAH_FBTL (AHEJ4L)</p>
10	GD-1	Rajasthan	16-02-2025 14:27	16-02-2025 16:15	01:48	90	0	0.174	0.000	51756	54965	<p>i)Generation of 220kV JGCPL(IP) station evacuates through 220 KV Bikaner_2 (PBTSL)-JGCPL_SL_BIK2_PG (Juniper_NEPL) Ckt. During antecedent condition, 220kV JGCPL(IP) station was generating approx. 90 MW.</p> <p>ii)As reported, at 14:27hrs, 220 KV Bikaner_2 (PBTSL)-JGCPL_SL_BIK2_PG (Juniper_NEPL) Ckt tripped on B-N phase to earth fault due to differential protection operation (exact reason and location of fault yet to be shared).</p> <p>iii)Due to tripping of 220 KV Bikaner_2 (PBTSL)-JGCPL_SL_BIK2_PG (Juniper_NEPL) Ckt, JGCPL(IP) S/s lost its connectivity from grid and blackout occurred at 220kV JGCPL(IP)S/s.</p> <p>iv)As per PMU at Bikaner_2(PG), B-N phase to earth fault (voltage dipped upto 0.75 p.u.) with unsuccessful A/R is observed with fault clearing time of 80ms. After the fault clearance voltage increased upto 1.04 p.u.</p> <p>v)As per PMU, solar generation loss of approx. 90 MW is observed respectively at JGCPL(IP).</p> <p>vi)As per SCADA, dip in ISTS total solar generation of approx. 211 MW is observed.</p>	<p>i) 220 KV Bikaner_2 (PBTSL)-JGCPL_SL_BIK2_PG (Juniper_NEPL) Ckt</p>
11	GH	J&K	17-02-2025 14:54	17-02-2025 14:59	00:05	0	210	0.000	0.371	54206	56622	<p>i)220/132kV Delina substation has Double main and transfer bus scheme.</p> <p>ii)During antecedent condition, 220kV Amargarh (INDIGRID)-Delina(JK) D/C was carrying 106 MW each and feeding Delina load.</p> <p>iii)As reported, at 14:54 hrs, 132kV Delina - Pattan line tripped due to broken jumper condition while returning the same line from shutdown (exact reason, nature and location of fault need to be shared).</p> <p>iv)During the same time, 220/132kV 160MVA ICT-1 at Delina(JK) tripped on earth fault (exact nature of protection operated need to be shared).</p> <p>v)Subsequently, this led to overloading of 220/132kV 160MVA ICT-2 & 3 at Delina(JK) and got tripped on over-current protection operation.</p> <p>vi)As per PMU at Amargarh (INDIGRID), R-Y-B 3 phase to earth fault with fault clearing time of 80 msec is observed.</p> <p>vii)As per SCADA, change in demand of approx. 210 MW is observed in J&K control area.</p>	<p>i) 220/132kV 160MVA ICT-1 at Delina (JK) ii) 220/132kV 160MVA ICT-2 at Delina (JK) iii) 220/132kV 160MVA ICT-3 at Delina (JK)</p>
12	GI-2	UP	22-02-2025 17:18	22-02-2025 18:40	01:22	0	106	0.000	0.209	47874	50657	<p>i)800/220kV Moradabad(UP) has double main and transfer bus scheme in both 400kV and 220kV system. 220/132kV Moradabad-2(UP) was connected to the same 220kV bus as that of 400/220kV Moradabad(UP).</p> <p>ii)During the antecedent condition, 400/220 KV 500 MVA ICT 1 at Moradabad(UP), 220/132 KV 160 MVA ICT 2 & ICT 3 at Moradabad-2(UP) were carrying 79MW, 20MW and 20MW. 400/220 KV 240 MVA ICT 3 at Moradabad(UP) was under shutdown.</p> <p>iii)As reported, at 17:18hrs, fault occurred in 132kV Moradabad-2 - Golbari Ckt (Exact reason, nature and location of fault yet to be shared).</p> <p>iv)Since the fault wasn't cleared at 132kV level, it propagated further into 220kV system which led to Bus Bar protection operation at both 220kV Bus-1 & 2 at Moradabad-2(UP) and all the elements connected to both the 220kV buses at Moradabad-2(UP) tripped.</p> <p>v)As per PMU at Bareilly(PG), Y-B phase to phase fault is observed with fault clearing time of 80ms.</p> <p>vi)As per SCADA, change in demand of approx. 106MW is observed in UP control area.</p>	<p>i) 400/220 kv 500 MVA ICT 1 at Moradabad(UP) ii) 220/132 kv 160 MVA ICT 2 at Moradabad-2(UP) iii) 220/132 kv 160 MVA ICT 3 at Moradabad-2(UP) iv) 220kV Moradabad-2 - Amethi (UP) Ckt v) 220kV Moradabad-2 - Sambhal (UP) Ckt</p>

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						Generation Loss(MW)	Load Loss (MW)	% Generation Loss (MW)	% Load Loss (MW)	Antecedent Generation (MW)	Antecedent Load (MW)		
13	GD-1	Rajasthan	23-02-2025 18:05	23-02-2025 23:18	05:13	29	0	0.068	0.000	42623	49032	i)Generation of 400kV Azure43(IP) (both PSS and RS) evacuates through 400 KV Bikaner(PG)-AzurePSS43 SL_BKN_PG(Azure) (Azure) Ckt. ii)During antecedent condition, Azure43(IP) was generating approx. 29 MW (as per PMU). iii)As reported, at 18:05hrs, 400 KV Bikaner(PG)-AzurePSS43 SL_BKN_PG(Azure) (Azure) Ckt tripped due to DT received at Bikaner(PG) end. (Exact reason yet to be shared) iv)During the same time, 400 KV AzurePSS43 SL_BKN_PG-AzureRS43 SL_BKN_PG (Azure) Ckt, 400/33 kv 150 MVA ICT 1 & 2 at AzurePSS43 SL_BKN_PG(Azure) and 400/33 kv 150 MVA ICT 1 & 2 at AzureRS43 SL_BKN_PG(Azure) also tripped due to loss of evacuation path (Exact reason and nature of protection operated yet to be shared). This led to complete blackout of 400kV Azure43(IP) S/s. v)As per PMU at Bikaner(PG), no fault was observed in the system. vi)As per PMU at Azure43(IP), solar generation loss of approx. 29 MW is observed.	i) 400 KV Bikaner(PG)-AzurePSS43 SL_BKN_PG(Azure) (Azure) Ckt ii) 400 KV AzurePSS43 SL_BKN_PG-AzureRS43 SL_BKN_PG (Azure) Ckt iii) 400/33 kv 150 MVA ICT 1 at AzurePSS43 SL_BKN_PG(Azure) iv) 400/33 kv 150 MVA ICT 2 at AzurePSS43 SL_BKN_PG(Azure) v) 400/33 kv 150 MVA ICT 1 at AzureRS43 SL_BKN_PG(Azure) vi) 400/33 kv 150 MVA ICT 2 at AzureRS43 SL_BKN_PG(Azure)
14	GD-1	Haryana	45715.34097	45715.4	91430.059	0	414	0	0.745234	46503	55553	i)800kV Daulatabad(HV) has one and half breaker bus scheme in 400kV and double main bus transfer for 220kV system. ii)During the antecedent condition, 400 KV GURGAON(PG)-DAULATABAD(HV) (HV) CKT-1&2, 400 KV JHAJJAR(APCL)-DAULATABAD(HV) (HV) CKT-1 & 2 and 400kV DAULATABAD-DHANONDA CKT-1&2 were carrying 228MW (each circuit), 353MW (each circuit) and 138MW (each circuit) respectively. iii)As reported, at 08:11hrs, B-N fault occurred on 400 KV GURGAON(PG)-DAULATABAD(HV) (HV) CKT-2. On this fault, line successfully autoreclosed from Gurgaon(PG) end but CB at Daulatabad end failed to open. During patrolling, flag was found wrapped on phase conductor at tower location no. 54-55. iv)During inspection, both trip coils of 400 KV GURGAON(PG)-DAULATABAD(HV) (HV) CKT-2 at Daulatabad end were found burnt. v)As CB at Daulatabad end failed to open, LBB of Gurgaon Bay should have operated. However, LBB protection also didn't operate. During the inspection, it was found that bus bar relay was in error mode. vi)Further, all the 400kV lines i.e., 400 KV GURGAON(PG)-DAULATABAD(HV) (HV) CKT-1, 400 KV JHAJJAR(APCL)-DAULATABAD(HV) (HV) CKT-1 & 2 and 400kV DAULATABAD-DHANONDA CKT-1&2 tripped on operation of distance protection in Z-2. vii)Further, 400/220kV 315MVA ICT-1,2,3&4 at Daulatabad(HV) tripped on operation of non-directional O/C E/F protection operation and fault got cleared. Tripping of all the elements led to blackout of the 400/220kV Daulatabad(HV) S/s. viii)As per PMU at Gurgaon(PG), B-N phase to earth fault with delayed clearance of ~1080 msec is observed. ix)As per SCADA, change in demand of approx. 414MW is observed in Haryana control area. x)As reported, fault trip coils have been replaced and bus bar relay is reboot. Bus bar relay is working properly however it has been kept under observation and feedback has been given to relay OEM for review of relay.	i)800 KV GURGAON(PG)-DAULATABAD(HV) (HV) CKT-2 ii)800/220 KV 315 MVA ICT 1 AT DAULATABAD(HV) iii)800/220 KV 315 MVA ICT 2 AT DAULATABAD(HV) iv)800/220 KV 315 MVA ICT 3 AT DAULATABAD(HV) v)800/220 KV 315 MVA ICT 4 AT DAULATABAD(HV) vi)800 KV JHAJJAR(APCL)-DAULATABAD(HV) (HV) CKT-2 vii)800 KV JHAJJAR(APCL)-DAULATABAD(HV) (HV) CKT-1 viii)800 KV GURGAON(PG)-DAULATABAD(HV) (HV) CKT-1
15	GD-1	Rajasthan	28-02-2025 11:52	28-02-2025 12:50	00:58	140	0	0.270	0.000	51922	57710	i)Generation of 220kV JUNIPER GREEN COSMIC Pvt Ltd (JGCL)(IP) evacuates through 220 KV Bikaner_2 (PBTSL)-JGCL_SL_BIK2_PG (Juniper_NEPL) Ckt-1 and 220kV JGCL_SL_BIK2_PG (Juniper_NEPL) – MSEEPL Ckt. ii)During antecedent condition, 220 KV Bikaner_2 (PBTSL)-JGCL_SL_BIK2_PG (Juniper_NEPL) Ckt-1 was carrying approx. 140 MW of load (as per PMU) and 220kV JGCL_SL_BIK2_PG (Juniper_NEPL) – MSEEPL Ckt was in shutdown. iii)As reported, at 11:52hrs, 220 KV Bikaner_2 (PBTSL)-JGCL_SL_BIK2_PG (Juniper_NEPL) Ckt tripped due to relay malfunctioning. (Exact reason yet to be shared) iv)Due to tripping of the line, complete RE generation of JGCL(IP) got affected due to loss of evacuation path. v)As per PMU at JGCL(IP), no fault was observed in the system. vi)As per PMU at JGCL(IP), solar generation loss of approx. 140 MW is observed.	220 kv Bikaner_2 (PBTSL)-JGCL_SL_BIK2_PG (Juniper_NEPL) Ckt-1
16	GI-1	J&K	28-02-2025 03:30	28-02-2025 06:48	03:18	0	126	0.000	0.344	31699	36679	i)220/132kV Ziankote S/s have two bus at 220kV side i.e., main bus & reserve bus. 220kV Amargarh-Ziankote ckt-1&2 are on the same tower (D/C tower) and line length is ~21.4km. ii)During antecedent condition, 220kV Amargarh (INDIGRID)-Ziankote (JK) ckt-2 was carrying 139 MW and feeding Ziankote load. 220kV Amargarh (INDIGRID)-Ziankote (JK) ckt-1 was already tripped at 02:40 hrs on R-N fault. iii)As reported, at 03:30 hrs 220 KV Amargarh (INDIGRID)-Ziankote(JK) (PDD JK) Ckt-2 also tripped on R-N fault (details of cause of fault and location of fault yet to be received). iv)As per PMU at Amargarh (INDIGRID), no fault was observed in system. v)As per SCADA, change in demand of approx. 126 MW is observed in J&K control area.	i)220 KV Amargarh (INDIGRID)-Ziankote(JK) (PDD JK) Ckt-1 ii)220 KV Amargarh (INDIGRID)-Ziankote(JK) (PDD JK) Ckt-2

Details of Grid Events during the Month of Feb 2025 in Western Region



Sl No.	Category of Grid Event (GI for GI-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	WR	13:12 / 07-02-2025	14:30 / 07-02-2025	01:18	-	541	-	0.75%	82721	72287	At 13:12 Hrs / 07-02-2025, 400 kV Nagothane-Dabhol-2 tripped on R-Y phase fault due to agriculture fire between tower location 150-160. Due to non operation of primary and backup protection, the fault was cleared after 1147 msec on Backup Earthfault Protection of ICTs. After 10 minutes, 220 kV Nagothane became dead at 13:22 Hrs / 07-02-2025 due to tripping of lines from remote end and 400/220 kV Nagothane substation became dead. Load loss of 541 MW occurred at Nagothane area (Maharashtra) due to the event.	Tripping of following Elements: 1 400kV Nagothane-Padghe-1 2 400kV Nagothane-Padghe-2 3 400kV RGPPL-Nagothane-1 4 400kV RGPPL-Nagothane-2 5 400/220 kV Nagothane ICT-1 6 400/220 kV Nagothane ICT-2 7 400/220 kV Nagothane ICT-3
2	GD-1	WR	17:10 / 10-02-2025	18:38 / 10-02-2025	01:28	-	-	-	-	81205	72568	At 17:10 hrs 220kV Umariya (Agar Unit-5) Pachora ckt tripped from Umariya (Agar) end only. No indications observed. No generation loss recorded as the tripping occurred in non solar hours.	Tripping of following Elements: 1. 220kV Umariya (Agar)-Pachora ckt
3	GD-1	WR	19:09 / 10-02-2025	21:34 / 10-02-2025	02:25	-	-	-	-	78849	69066	Jamkhambaliya had requested emergency outage of 220KV-JAMKHAMBALIYA-MANJA for attending SF6 gas pressure low in 203 main breaker at Jamkhambaliya end. Shutdown was availed at 15:20 hrs. After completion of work, line normalised at 18:46 hrs. However at 19:09 hrs. at 220kV Manja end, while charging 220/33kV ICT, the line tripped due to earth fault. Manja has informed that its 202 main breaker of 220/33kV ICT is under forced outage since 06th March 2024. Since then, 220/33kV Manja ICT was kept charged through TBC bay 201. DT has been received at Jamkhambaliya end. There is no generation loss due to this tripping.	Tripping of following Elements: 1 220KV-Jamkhambaliya-Manja 2 220/33kV Manja ICT
4	GD-1	WR	10:25 / 11-02-2025	12:14 / 11-02-2025	01:49	340	-	0.39%	-	87327	79157	At 10:25 hrs 220kV Umariya (Agar Unit-5) Pachora ckt tripped from Umariya (Agar) end only. No indications observed. 330-340MW generation loss recorded due to the loss of evacuation path.	Tripping of following Elements: 1. 220kV Umariya (Agar)-Pachora ckt
5	GD-1	WR	16:28 / 11-02-2025	18:20 / 11-02-2025	01:52	162	-	0.19%	-	83126	74840	At 16:28 hrs 220kV Umariya (Agar Unit-5) Pachora ckt tripped from Umariya (Agar) end only. No indications observed. 162 MW generation loss recorded due to the loss of evacuation path.	Tripping of following Elements: 1. 220kV Umariya (Agar)-Pachora ckt
6	GD-1	WR	16:28 / 11-02-2025	18:20 / 11-02-2025	01:52	111	-	0.13%	-	83126	74840	At 16:28 hrs 220kV Ladwan (Agar Unit-5) Pachora ckt tripped from Ladwan (Agar) end only. Planned outage of 220 KV main bay (204) of 220 KV Ladwan Pachora at Pachora end was availed at 10:27 hrs and normalized at 16:27 hrs. At 16:28 hrs, DT was sent from Pachora SS to Ladwan which is suspected to be extended while changing Bay from Transfer mode to Local Mode. 111 MW generation loss recorded due to the loss of evacuation path.	Tripping of following Elements: 1. 220 kV Agar4(Ladwan)-Pachora ckt
7	GD-1	WR	10:11 / 12-02-2025	11:11 / 12-02-2025	01:00	280	-	0.31%	-	89569	77923	At 10:11 hrs 220kV Umariya (Agar Unit-5) Pachora ckt tripped from Umariya (Agar) end only. No indications observed. 280 MW generation loss recorded due to the loss of evacuation path	Tripping of following Elements: 1. 220kV Umariya (Agar)-Pachora ckt
8	GD-1	WR	10:11 / 12-02-2025	11:14 / 12-02-2025	01:03	138	-	0.15%	-	89569	77923	At 10:11 hrs 220kV Ladwan ICTs 1&2 tripped while availing the planned outage of 220kV Pachora Bus Coupler at 220kV Pachora. 138 MW generation loss recorded due to the loss of connected 2 ICTs.	Tripping of following Elements: 1. 220 kV Agar4(Ladwan)-Pachora ckt

Details of Grid Events during the Month of Feb 2025 in Western Region



Sl No.	Category of Grid Event (GI for GI-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)		
9	GI-2	WR	20:42 / 13-02-2025	21:12 / 13-02-2025	00:30	-	-	-	-	74646	63241	At 20:42 hrs/13.02.2025, during relay testing of 765kV Lakadiya Bus-2 (which was already in planned outage), 765kV Lakadiya Bus-1 got tripped. This resulted in tripping of 765kV Lakadiya – Banaskantha-1, 765/400kV Lakadiya ICTs -1&2 and 765kV Lakadiya Bus reactor. 765kV Lakadiya Vadodara Double Circuit lines remained in service, with power flow redirected through the 765kV Bhuj-II Double Circuit via Tie bays.	Tripping of following Elements: 1. 765kV Lakadiya Bus-1 2. 765kV Lakadiya – Banaskantha -1 3. 765/400kV Lakadiya ICTs 1 4. 765/400kV Lakadiya ICTs 2 5. 765kV Lakadiya Bus reactor
10	GD-1	WR	15:45 / 15-02-2025	19:02 / 15-02-2025	03:17	114		0.14%	-	81824	73847	At 15:45 Hrs/15-02-2025, 220 kV Pritamnagar- Indore tripped on R-E fault & resulted in blackout of 220 kV Pritamnagar substation due to radial feeder . Generation loss of 114 MW occurred due to the event.	Tripping of following Elements: 1. 220 kV Pritamnagar- Indore
11	GD-1	WR	15:45 / 15-02-2025	22:52 / 27-02-2025	295:07	97		0.13%	-	75035	60746	At 21:13 Hrs/15-02-2025, 220kV Bhuj-Gadhsisa S/C tripped due to B-Y fault, which resulted in loss of evacuation path. After patrolling team found EHV Line Tower No: 15/3 damaged from top section due to conductor theft case at fault location. About 97 MW generation loss occurred at 220 KV Gadhsisa WPP.	Tripping of following Elements: 1. 220kV Bhuj-Gadhsisa
12	GD-1	WR	11:42 / 22-02-2025	12:09 / 22-02-2025	00:27	-	346	-	0.45%	84237	76472	At 11:42Hrs/22-02-2025, 220kV Kolhapur Bus-1 tripped due to LBB operated at 220 kV Bidri CB at 400 kV Talandge, which resulted in tripping of all elements. About 346MW load loss occurred at 400KV/220 KV Kolhapur SS.	Tripping of following Elements: 1. 220kV Kolhapur Bus-1 2. 400kV/220kV ICT-1 3. 400kV/220kV ICT-2 4. 220 kV Kolhapur-ichakranji-1 5. 220 kV Kolhapur-Hamidwada 6. 500 MVA ICT 1 7. 220 kV Kolhapur-Mudshingi 1 8. 220 kV Bus Coupler 9. 220kV Kolhapur-Bidri
13	GD-1	WR	15:38 / 22-02-2025	19:26 / 22-02-2025	03:48	44		0.05%	-	82323	75362	At 15:38 Hrs/22-02-2025, 400kV Khavda PS I-Khavda PSS9 S/C tripped on differential relay protection, which resulted in loss of evacuation path. It was confirmed that wrong operation made by testing & commissioning project team in 428 tie bay of 429 which lead to tripping. About 44 MW generation loss occurred at 400 kV Khavda PSS9 WPP.	Tripping of following Elements: 1. 400kV Khavda PS I-Khavda PSS9 S/C

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



Sl No.	Category of Grid Event (GI for GI2/ 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	KARNATAKA	07-02-2025 14:52	07-02-2025 15:31	1:18	0	152	0.00%	0.24%	54730.89	62729.53	Complete Outage of 220kV/66kV Nittur SS of KPTCL: During antecedent conditions, 220kV Nittur Arasikere was under outage as per SLDC instructions. 220kV/66kV Nittur was being radially fed through 220kV Nittur Neamangala line. As per the reports submitted, the triggering incident was B-N fault in 220kV Nittur Neamangala line and the line tripped. Tripping of the only connected line led to complete outage of 220kV/66kV Nittur SS.	220KV-NITTUR-NELAMANGALA-1
2	GD - 1	KARNATAKA	11-02-2025 13:42	11-02-2025 14:30	00:48	0	472	0.00%	0.75%	54101.3	62994.34	Tripping of 220kV Bus-1 of 400kV/220kV Nelamangala SS, 220kV Bus-2 of 220kV/66kV Penya SS, Complete outage of 220kV/66kV Brindavan SS, 20kV/110kV Nittur SS, 220kV/110kV Anhepalya SS of KPTCL: As per the reports submitted, the triggering incident was B-N fault in 66kV Anhepalya BG Pura line. At the same time, 220kV Nelamangala Bus-1 BBP maloperated and all elements connected to 220kV Nelamangala Bus-1 tripped. Tripping of 220kV Bus-1 of 400kV/220kV Nelamangala SS led to loss of power supply to 220kV Bus-2 of 220kV/66kV Penya SS, 220kV/66kV Brindavan SS, 20kV/110kV Nittur SS and 220kV/110kV Anhepalya SS of KPTCL.	220KV-ANCHEPALYA-NAGAMANGALA-2, 220KV-NELAMANGALA-BRINDAVAN-1, 220KV-NELAMANGALA-DODDABALLAPUR-1, 220KV-NITTUR-NELAMANGALA-1, 220KV-PEENYA-NELAMANGALA-1, 400KV/220KV NELAMANGALA-ICT-1, 400KV/220KV NELAMANGALA-ICT-2
3	GD - 1	ATAKA, TELANGANA	12-02-2025 17:04	12-02-2025 18:20	01:16	0	0	0.00%	0.00%	48743.45	61000.08	Tripping of 220kV Bus-2 of 220kV/110kV RAICHUR_KA SS of KPTCL and Complete outage of 220kV Upper Jurala PH of TGENCO: Triggering incident was YB fault in 220kV RAICHUR_KA Upper Jurala line-2. At Upper Jurala end, line tripped on operation of Zone-2 carrier aided protection. At the same time, 220kV Bus-2 BBP maloperated at 220kV RAICHUR_KA end. At Upper Jurala end, during antecedent, 220kV Jurala lines were kept open and hence it was radial on 220kV RAICHUR_KA. Therefore, due to tripping of both connected Upper Jurala lines there was complete outage at 220kV Upper Jurala PH.	220KV-JURALA-RAICHUR_KA-1, 220KV-RTPS-RAICHUR_KA-2, 220KV-JURALA-RAICHUR_KA-2
4	GD - 1	ANDHRA PRADESH	13-02-2025 11:53	13-02-2025 12:08	00:15	0	130	0.00%	0.20%	56261.04	65431.98	Complete outage of 220kV/132kV Nuziveedu SS of APTRANSCO: During antecedent conditions, 220kV Nuziveedu KV_Kota_old line was under outage on load management (to control the loading of 220kV KV_Kota_old KV_Kota line of 400kV/220kV KV_kota SS). Hence from 220kV side, 220kV/132kV Nuziveedu SS was radially fed from 220kV VTPS and from 132kV side, the grid connected line was 132kV Nuziveedu Kanumolu line. Triggering incident was BN fault in 220kV Nuziveedu VTPS line. Due to the tripping of 220kV Nuziveedu VTPS line, 132kV Nuziveedu Kanumolu line got overloaded and tripped on operation of OC protection at Kanumolu end. This resulted in complete outage of 220kV/132kV Nuziveedu SS.	NUZVID - 220KV, 220KV-VTPS-NUZVID-1
5	GD - 1	KARNATAKA	19-02-2025 08:55	19-02-2025 09:10	00:15	1196	487	2.19%	0.75%	54517.62	64600.44	Complete outage of 400kV/220kV UPCL of Adani: During antecedent conditions, there was bus split operation at 220kV Kemar SS. The triggering incident was opening of Main Bay of 400kV/220kV ICT#1 at UPCL for planned maintenance coincided with the LV breaker tripping, leading to an overload on ICT#2. The UPCL SPS operated and tripped U#2 despite 400kV lines being in service, and 400kV/220kV ICT#2 later tripped on backup OC protection, causing complete outage of 220kV/110kV Kavoore SS, 220kV/110kV MSEZ(Bajpe) SS, tripping of 220kV Bus-1 of 220kV/110kV Kemar SS of KPTCL and tripping of 400kV Bus-1 and 220kV Bus-1 and 2 at 400kV/220kV UPCL of Adani.	400KV/220KV UPCL-ICT-1, 400KV/220KV UPCL-ICT-2, UPCL - UNIT 2, UPCL - UNIT 1
6	GD - 1	KARNATAKA	19-02-2025 14:01	19-02-2025 14:45	0:44	782	1072	1.39%	1.68%	56444	63967.66	Grid Disturbance in North Karnataka: At 220kV Narendra_KA SS, during antecedent conditions, isolators of both buses were under closed condition. While carrying out 100MVA Trafo-1 CB dismantling work crane came in arcing zone (B phase) of 220kV Narendra_KA Bus resulting in a BN fault. 220kV Bus zone-1 & 2 operated (since isolators of both buses were in closed condition). This resulted in the tripping of all the elements connected to 220kV Narendra_KA SS. This eventually led to complete outage of 220kV/110kV Narendra_KA SS, 220kV/110kV Ambewadi SS, 220kV Nagheri PH, 220kV/ Kanabargi SS, 220kV/110kV Soudatti SS, 220kV/110kV Bidnal SS, 220kV/110kV Hubli SS, 220kV/110kV Belagaum SS, 220kV/110kV Athani SS, 220kV/110kV Kudachi SS, 220kV/110kV Haveri SS, 220kV/66kV Shigaon SS, 220kV/110kV Mughalkod SS, 220kV/110kV Chikkodi SS, 220kV/110kV Kanagala SS, 220kV/110kV Aequs, 220kV/110kV Indal, 220kV/33kV Tadas SS.	220KV-GHATPRABHA-MUGHALKHOD-1, 220KV-GHATPRABHA-MUGHALKHOD-2, 220KV-NARENDRA-MAHALINGAPURA-1, 220KV-NARENDRA-MAHALINGAPURA-2, 220KV-AMBEWADI-PONDA-1, 220KV-AMBEWADI-PONDA-2

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



Sl No.	Category of Grid Event (GI for GI2/ 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)		
7	GD - 1	KARNATAKA	20-02-2025 10:52	20-02-2025 11:59	01:07	0	254	0.00%	0.38%	55541.17	67121.5	Complete Outage of 220kV/66kV Bidadi_KA SS, 220kV Toyota and Tripping of 220kV Bus-2 of 220kV/66kV Somanahalli_KA SS of KPTCL: During antecedent conditions, 220kV Somanahalli_KA Bidadi_KA line-1 was under outage and there was bus split operation at 220kV Somanahalli_KA SS with 220kV Somanahalli Bus-2 being fed from 220kV Bidadi Somanahalli Line-2. 220kV Toyota is being radially fed from 220kV/66kV Bidadi SS. The triggering incident was 220kV Bus-1 fault at 220kV/110kV Bidadi_KA SS due to failure of isolator rigid bus damp in 220kV Somanahalli_KA Bidadi_KA line-2 bay. Due to non-operation of 220kV Bus-1 BBP at 220kV/110kV Bidadi_KA SS, the fault was cleared by tripping of 220kV Bidadi connected lines from remote ends in zone-2, and in few lines on zone-4. Tripping of all connected lines led to complete outage of 220kV/66kV Bidadi_KA SS, 220kV Toyota and Tripping of 220kV Bus-2 of 220kV/66kV Somanahalli_KA SS.	220KV-BIDADI_PG-BIDADI-2, 220KV-BIDADI_PG-BIDADI-1, 220KV-BIDADI-KOTHIPURA-1, 220KV-BIDADI-KOTHIPURA-2, 220KV-BIDADI-SOMANAHALLI-2
8	GD - 1	KARNATAKA	21-02-2025 15:10	21-02-2025 16:52	01:42	0	200	0.00%	0.30%	52582.68	66603.05	Complete Outage of 220kV/66kV Dobbaspeth SS of KPTCL: During antecedent conditions, 220kV Dobbaspeth Kadur line was under outage. Hence 220kV Dobbaspeth SS was radially fed from 400kV/220kV Neelamangala SS. The triggering incident was BN fault in 220kV Dobbaspeth Neelamangala line and the line tripped. Due to tripping of the only connected line, there was complete loss of supply at 220kV/66kV Dobbaspeth SS.	220KV-DOBBASPETH-NELAMANGALA-1
9	GD - 1	KARNATAKA	22-02-2025 16:28	22-02-2025 16:32	00:04	0	670	0.00%	1.03%	51470.0	65249.35	Tripping of 220kV Bus-1 of 400kV/220kV Kolar_PG, complete outage of 220kV/66kV Kolar SS, 220kV Bus-2 of 220kV/66kV Malur SS, 220kV/66kV T Gollahalli SS, 220kV/66kV Chinthamani SS, 220kV/66kV Srinivasapura SS of KPTCL: During antecedent conditions, 220kV Kolar_PG Bus-2 was under outage. The triggering incident was failure of B-pole post insulator causing a fault in 220kV Kolar_PG Bus-1. Immediately, 220kV Bus-1 BBP operated and all elements connected to Bus-1 tripped. Since, 220kV/66kV Kolar SS, 220kV Bus-2 of 220kV/66kV Malur SS, 220kV/66kV T Gollahalli SS, 220kV/66kV Chinthamani SS, 220kV/66kV Srinivasapura SS are being radially fed from 220kV Kolar_PG Bus-2. Tripping of 220kV Kolar Bus-2 led to loss of power supply to these stations.	220KV-KOLAR_AC-CHINTAMANAI-1, 220KV-KOLAR_AC-CHINTAMANAI-2, 220KV-KOLAR_AC-T_GOLLAHALLI-1, 220KV-KOLAR_AC-T_GOLLAHALLI-2, 220KV-KOLAR_KAR-KOLAR_AC-1, 220KV-KOLAR_KAR-KOLAR_AC-2, KOLAR_AC - 220KV - Bus 1, 400KV/220KV KOLAR_AC-ICT-2, 400KV/220KV KOLAR_AC-ICT-3, 400KV/220KV KOLAR_AC-ICT-1
10	GD - 1	KARNATAKA	26-02-2025 11:09	26-02-2025 11:23	00:14	31	320	0.05%	0.48%	59271.59	66978.68	Tripping of 220kV Bus-1 of 220kV Infosys Switching Station and Complete Outage of 220kV/66kV Infosys Pooling Station, 220kV/66kV Gowribidanur SS, 220kV/66kV Mitteramari SS, 220kV/66kV Sira SS and 220kV/66kV KIADB-DBPura SS: During antecedent conditions, 220kV KIADB DB Pura were under outage. As per the reports submitted, the triggering incident was R-N fault in 220kV Hiriyur Infosys Line-1. At the same time, 220kV Sira Infosys Line-2, 220kV bus coupler of 220kV Infosys Switching Station and 220kV Madhugiri Gowribidanur line tripped. Tripping of all these lines led to complete outage of 220kV/66kV Infosys Pooling Station, 220kV/66kV Gowribidanur SS, 220kV/66kV Mitteramari SS, 220kV/66kV Sira SS and 220kV/66kV KIADB-DBPura SS.	220KV-HIRIYUR-INFOSYS-1, 220KV-SIRA-INFOSYS-2, 220KV-GOWRIBIDANUR-MADHUGIRI-1

Details of Grid Events during the Month of Feb 2025 in Eastern Region



Sl No.	Category of Grid Event (GI for GI 2/ GD-1 to GD-5)	Affected Area	Time and Date of occurrence of Grid Event	Time and Date of Restoration	Duration (HHE: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-I	GMR	04.02.2025 16:49	04.02.2025 17:04	00:15	655	0	2.34%	0.00%	27938	20555	At 16:49 Hrs, 400KV Angul-GMR-2 tripped due to B-Earth fault (B-Ph conductor snapped at 21 km from GMR). 400KV-Angul-GMR Ckt-1 was under planned shutdown. Both Bus at 400 kV GMR(JPP) became dead as it was radially connected to 400 kV Angul S/S and total generation loss of 655 MW occurred. 400 kV GMR-Angul-1 charged at 17:04 Hrs	400 kV GMR-Angul-2 350 MW U#1, U#2 at GMR
2	GI-I	Indravati	15.02.2025 16:49	15.02.2025 18:23	01:34	200	0	0.65%	0.00%	30943	20241	At 16:49 Hrs on 15.02.2025, while synchronizing U#2 at Indravati, bus bar protection operated for 220 kV Bus-1 which resulted in tripping of all elements connected to 220 kV Bus-1 at Indravati. Running units (U#1, U#4) at Indravati tripped leading to generation loss of around 200 MW.	220 KV Main Bus - 1 at Indravati 150 MW U#1, U#2, U#4 at Indravati 315 MVA 400/220 kV ICT#1, ICT2 at Indravati 220 KV Therubali-Indravati-1,2,3
3	GD-I	PVUNL	20.02.2025 02:33	21.02.2025 22:13	43:40	0	0	0.00%	0.00%	26983	18664	At 02:33 Hrs on 20.02.2025, 400KV Tenughat-PVUNL tripped due to Y_N fault. At present PVUNL is drawing start up power radially through this line. As the line tripped, 400 kV PVUNL S/s became dead. Around 32 MW start up power was being drawn at that instance.	400 KV Tenughat-PVUNL-1
4	GD-I	Angul, GMR, JIPL	20.02.2025 16:20	20.02.2025 17:57	01:37	1777	0	6.15%	0.00%	28913	27136	At 16:20 Hrs on 20.02.2025, 400 kV Bus-1 & 2 and 765 kV Bus 1 & 2 at 765/400 kV Angul S/s tripped. All elements except 765 kV Jharsuguda-Angul-1&2, 765/400 kV ICT-1&2, 400 kV Angul-Bolangir (these elements remained charged through tie bay) tripped. Generation loss of 1777 MW occurred at GMR and JIPL due to loss of evacuation path. GMR and JIPL S/s also became dead. Inclement weather with localized storm was reported around Angul S/s.	765 kV Bus-1 and Bus-2 at Angul 400 kV Bus-1 and Bus-2 at Angul 765 kV Angul-Jharsuguda-3 765 kV Angul-Srikakulam D/c 765/400 kV ICT-3,4 330 MVA 765 kV Bus Reactor-2 at Angul 125 MVA 400 kV Bus Reactor-1,2,3 at Angul 600 MW U#1, U#2 at JIPL 350 MW U#1, U#2 at GMR 400 kV Angul-JIPL D/c 400 kV Angul-GMR D/c

Details of Grid Events during the Month of Feb 2025 in North Eastern Region



Sl No.	Category of Grid Event (GI for GI2/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 I	Along, Pasighat, Napit & Niglok areas of Arunachal Pradesh Power System	05-02-2025 11:15	05-02-2025 12:17	01:02:00	0	21	0.00%	1.02%	1751	2057	Along, Pasighat, Napit & Niglok areas of Arunachal Pradesh Power System were connected with rest of NER Grid through 132 kV Basar-Along & 132 kV Roing - Pasighat lines. At 11:15 Hrs of 05-02-2025, 132 kV Along-Basar, 132 kV Along-Pasighat & 132 kV Roing - Pasighat lines tripped. Due to tripping of these elements, Along, Pasighat, Napit & Niglok 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 Along, Pasighat, Napit & Niglok areas of Arunachal Pradesh Power System by charging 132 kV Roing - Pasighat line at 12:17 Hrs of 05-02-2025.	132 kV Along-Basar, 132 kV Along-Pasighat & 132 kV Roing - Pasighat lines
2	GD I	Khuppi and Seppa areas of Arunachal Pradesh Power System	13-02-2025 15:25	13-02-2025 18:22	02:57:00	0	1.2	0.00%	0.06%	1785	2038	Khuppi and Seppa areas of Arunachal Pradesh Power System was connected with rest of NER Grid through 132 kV Kameng - Khupi & 132 kV Tenga - Khupi lines. At 15:25 Hrs of 13-02-2025, 132 kV Kameng - Khupi, 132 kV Tenga - Khupi lines & 132 kV Bus Coupler at Kameng tripped. Due to tripping of these elements, Khuppi and Seppa 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 Khuppi and Seppa areas by charging 132 kV Kameng - Khupi line at 18:22 Hrs of 13-02-2025.	132 kV Kameng - Khupi, 132 kV Tenga - Khupi lines & 132 kV Bus Coupler at Kameng.
3	GD I	Renggang area of Manipur Power System	14-02-2025 05:51	14-02-2025 10:19	04:28:00	0	1	0.00%	0.06%	2058	1693	Renggang area of Manipur Power System was connected with rest of NER Grid through 132 kV Loktak-Renggang line. 132 kV Jiribam-Renggang line was under long outage since 18:18 Hrs of 17.11.2023. At 05:51 Hrs of 14-02-2025, 132 kV Loktak-Renggang line tripped due to maloperation of 132 kV Bus coupler at Loktak. 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 was extended to Renggang area of Manipur Power System by charging 132 kV Loktak-Renggang line at 10:19 Hrs of 14-02-2025.	132kV Loktak-Renggang line & 132 kV Bus coupler at Loktak
4	GD I	Along area of Arunachal Pradesh Power System	15-02-2025 00:38	15-02-2025 03:44	03:06:00	0	4	0.00%	0.25%	1768	1631	Along area of Arunachal Pradesh Power System was connected with rest of NER Grid through 132 kV Along-Basar & 132 kV Along-Pasighat lines. At 00:38 Hrs of 15-02-2025, 132 kV Along-Pasighat and 132kV Along-Basar lines tripped. Due to tripping of these elements, Along area of Arunachal Pradesh Power System got isolated from NER Grid and collapsed due to no source available in this area. Power supply was extended to Along area by charging 132 kV Along -Pasighat line at 03:44 Hrs of 15-02-2025	132 kV Along-Basar & 132 kV Along-Pasighat lines
5	Near Miss	Doyang S/S of NEEPCO	16-02-2025 19:59	16-02-2025 20:32	00:33:00	20	0	0.86%	0.00%	2335	2581	Doyang S/S of NEEPCO was connected with rest of NER Grid through 132 kV Dimapur-Doyang D/C lines, 132 kV Doyang-Sanis line and 132 kV Doyang-Mokokchung Line. Prior to the event, 132 kV Doyang-Dimapur I line, 132 kV Doyang-Sanis line, Doyang Unit-2 & 3 were connected to Bus-I. And, 132 kV Doyang-Dimapur II line and 132 kV Doyang-Mokokchung line were connected Doyang Bus-II. Doyang Unit-I was under planned shutdown. At 19:59 Hrs of 16-02-2025, during desynchronization of Doyang Unit-2, 132 kV Bus-I at Doyang tripped on operation of bus bar protection resulting in tripping of all elements connected to Doyang Bus-I. Due to tripping of these elements, 132	132 kV Doyang-Dimapur I line, 132 kV Doyang-Sanis line, Doyang Unit-2 & 3 & 132 kV Bus coupler at Doyang
6	GD I	Panchgram area of Assam Power System	20-02-2025 12:30	20-02-2025 12:48	00:18:00	0	18	0.00%	0.89%	2491	2031	Panchgram area of Assam Power System was connected with rest of NER Grid through 132 kV Panchgram-Hailakandi, 132 kV Panchgram-Badarpur & 132 kV Lumshnong-Panchgram lines. 132 kV Panchgram-Srikona line was under long outage since 14.01.2019. At 12:30 Hrs of 20-02-2025, 132 kV Panchgram-Hailakandi, 132 kV Panchgram-Badarpur & 132 kV Lumshnong-Panchgram lines tripped. Due to tripping of these elements, Panchgram area of Assam Power System got isolated from NER Grid and collapsed due to no source available in this area. Power supply was extended to Panchgram area of Assam Power System by charging 132 kV Panchgram-Badarpur line at 12:48 Hrs of 20-02-2025.	132 kV Panchgram-Hailakandi, 132 kV Panchgram-Badarpur & 132 kV Lumshnong-Panchgram lines
7	GD I	Panchgram area of Assam Power System	22-02-2025 14:26	22-02-2025 15:05	00:39:00	0	20	0.00%	1.00%	1605	1995	Panchgram area of Assam Power System was connected with rest of NER Grid through 132 kV Panchgram-Hailakandi, 132 kV Panchgram-Badarpur & 132 kV Lumshnong-Panchgram lines. 132 kV Panchgram-Srikona line was under long outage since 14.01.2019. At 14:26 Hrs of 22-02-2025, 132 kV Panchgram-Hailakandi, 132 kV Panchgram-Badarpur & 132 kV Lumshnong-Panchgram lines tripped. Due to tripping of these elements, Panchgram area of Assam Power System got isolated from NER Grid and collapsed due to no source available in this area. Power supply was extended to Panchgram area of Assam Power System by charging 132 kV Panchgram-Hailakandi line at 15:05 Hrs of 22-02-2025.	132 kV Panchgram-Hailakandi, 132 kV Panchgram-Badarpur & 132 kV Lumshnong-Panchgram lines