|          |                   |                       |                  |  |                                 |                     |                        |                                    | <u>De</u>  | tails of                                   | Grid Eve                          | ents du                 | ring the Month of Dec 2024 in Northern Region  | ्रिड-इंडिया<br>GRID-INDIA  |
|----------|-------------------|-----------------------|------------------|--|---------------------------------|---------------------|------------------------|------------------------------------|--|--|-----------------------------------|-------------------------|--|--|
| SI<br>No |                   | ry of Grid<br>Event   | Affected Area    | Time and Date of occurrence of<br>Grid Event | Time and Date of<br>Restoration | Duration<br>(HH:MM) |                        | ration / loss of<br>the Grid Event | % Loss of gener<br>load w.r.t A:<br>Generation/I<br>Regional Grid dt<br>Even | ntecedent<br>.oad in the<br>aring the Grid | Antecedent Genera<br>the Regional |                         | Brief details of the event (pre fault and post fault system conditions)  | Elements Tripped   |
|          | ( GI 1e<br>GD-1 t | lor GI 2/<br>to GD-5) |                  |  |                                 |                     | Generation<br>Loss(MW) | Load Loss<br>(MW)                  | % Generation<br>Loss (MW)  | % Load<br>Loss (MW)                        | Antecedent<br>Generation (MW)     | Antecedent<br>Load (MW) |  |  |
| 1        | G                 | SI-1                  | Uttarakhand      | 02-12-2024 10:09                             | 02-12-2024 10:49                | 00:40               | 0                      | 72                                 | 0.000  | 0.118                                      | 49023                             | 60826                   |  | i)220KV/132KV 100 MVA ICT-1 at Haldwani(UK)<br>ii)220KV/132KV 100 MVA ICT-2 at Haldwani(UK)<br>iii)132KV Haldwani-Bazpur(UK) ckt-1   |
| 2        | G                 | SI-1                  | Uttarakhand      | 05-12-2024 20:02                             | 05-12-2024 21:04                | 01:02               | 223                    | 83                                 | 0.614  | 0.165                                      | 36316                             | 50444                   | il)During antecedent condition, three 30MW units of Khodri (Unit 1,2 & 4) and three 60 MW units of Chibiro (Unit 2,3 & 4) were running and total active power generation of Khodri and Chibiro was approx. 75 MW and 123 MW (as per SCADA).  il)As reported, at 20:02 hrs, while stopping of 30MW Khodri Unit-2, its 220kV CB malfunctioned and pole discrepancy operated. This led to LBB protection operation resulting in tripping of 220 kV Khodri (UNi-MajriHHP) (UK) Ckt-2 and 220 kV Saharanpur (UP)-Khodri (UN) (UP) Ckt, 220 kV Khodri-Chibiro (UK) Ckt-1 and 30MW Khodri Unit-2.  Unit-2.  ili)As per SCADA, two 60 MW units of Chibiro Unit 2 & 3 also tripped at the same time which caused generation loss of 103 MW (exact reason yet to be shared).  ily)As per FCADA, change in demand and generation of approx. 83 MW and 223 MW respectively in Uttarakhand control area were observed.  vi)As remedial action taken, over hauling & testing of generator CB has been performed and found satisfactory.  | i)220 KV Khodri(UK)-Majri(HP) (UK) Ckt-2<br>ii)220 KV Saharanpur(UP)-Khodri(UK) (UP) Ckt-1<br>ii)220 KV Khodr - Chilibro (UK) Ckt-1<br>iv)30 MW Khodri - UNIT 2<br>vi)80MW Chibro - UNIT 3   |
| 3        | G                 | 5I-1                  | Uttarakhand      | 06-12-2024 21:01                             | 06-12-2024 22:36                | 01:35               | 21                     | 74                                 | 0.063  | 0.156                                      | 33496                             | 47323                   | i)During antecedent condition, only one 30MW unit of Khodri (Unit 2) and one 60 MW unit of Chhibro (Unit 4) were running and total active power generation of Khodri and Chhibro was approx. 21 MW and 49 MW (as per SCADA).  ii)As reported, at 21:01 hrs, while stopping of 30MW Khodri Unit-2, its 220kV CB malfunctioned and pole discrepancy operated. This led to LBB protection operation resulting in tripping of 220 KV Khodri (Unit-Majri(HP) (UK) Ckt-2 and 220 KV Saharanpur(UP)-Khodri(UK) (UP) Ckt, 220 KV Khodri-Chhibro (UK) Ckt-1 and 30MW Khodri Unit-2.  Unit-2.  iii)As per SCADA, change in demand and generation of approx. 74 MW and 21 MW respectively in Ultarakhand control area were observed.  Iv)As reported by SLDC-UK, testing of Generator CB of Unit -2 by expert service engineer is under progress.   | i)220 KV Khodri(UK)-Majri(HP) (UK) Ckt-2<br>ii)220 KV Khodri-Chhibro (UK) Ckt-1<br>ii)220 KV Shanapur(UP)-Khodri(UK) (UP) Ckt<br>iv)30 MW Khodri - UNIT 2  |
| 4        | G                 | GI-2                  | Rajasthan        | 11-12-2024 12:13                             | 11-12-2024 13:20                | 01:07               | 835                    | 0                                  | 1.540  | 0.000                                      | 54210                             | 61487                   | i)400/220kV Jaisalmer(RS) has one and half breaker scheme at 400kV level and double main and transfer bus scheme at 220kV level. ii)During antecedent condition, Renew Solar, Fortum Solar, ACME Aklera and Clean solar was injecting approx. 109 MW, 236 MW, 267 MW and 245 MW respectively to Jaisalmer(RS) at 220kV level. Active power was going out to Akal(RS) through 220kV Jaisalmer(RS). Akal Ckt.1. & 2 carrying approx. 253 MW each. 400/220 kV 500 MVA ICT 1 & 3 talasiamer(RS) were carrying approx. 261 MW and 248 MW respectively from 220kV level to 400kV level. iii)As reported, at 12:13 hrs, 400/220 kV 500 MVA ICT 1 & 3 tripped along with 220kV lines of Renew Solar, Fortum Solar, ACME Aklera and Clean solar connected from 220kV Jaisalmer(RS) and 12:13 hrs, 400/220 kV 500 MVA ICT 1 & 3 tripped along with 220kV lines of Renew Solar, Fortum Solar, ACME Aklera and Clean solar connected from 20kV Jaisalmer(RS) and 12:13 hrs, 400/220 kV 500 MVA ICT 1 & 3 tripped along with 220kV lines of Renew Solar, Fortum Solar, ACME Aklera and Clean solar connected from 20kV Jaisalmer(RS) at 12:13 hrs, 400/220 kV 500 MVA ICT 1 & 3 tripped along with 220kV lines of Renew Solar, Fortum Solar, ACME Aklera and Clean solar connected from 20kV Jaisalmer(RS) at 12:13 hrs, 400/220 kV 500 MVA ICT 1 & 3 tripped along with 220kV lines of Renew Solar, Fortum Solar, ACME Aklera and Clean solar connected from 20kV Jaisalmer(RS) at 12:13 hrs, 400/220 kV 500 MVA ICT 1 & 3 tripped along with 220kV lines of Renew Solar, Fortum Solar, ACME Aklera and Clean solar connected from 20kV Jaisalmer(RS) at 12:13 hrs, 400/220 kV 500 MVA ICT 1 & 3 tripped along with 220kV lines of Renew Solar, Fortum Solar, ACME Aklera and Clean solar connected from 20kV Jaisalmer(RS) at 12:13 hrs, 400/220 kV 500 MVA ICT 1 & 3 tripped along with 220kV lines of Renew Solar, Fortum Solar, 400/220 kV 500 MVA ICT 1 & 3 tripped along with 220kV lines of Renew Solar, 500 MVA ICT 1 & 3 tripped along with 220kV lines of Renew Solar, 500 MVA ICT 1 & 3 tripped along with 220kV lines of Renew | ij400/220 kV 500 MVA iCT 1 at Jaisalmer(RS)<br>ij400/220 kV 500 MVA iCT 3 at Jaisalmer(RS)<br>iij400 KV Jaisalmer-Barmer (RS) Ckt-2<br>iij200k Jaisalmer(RS)-Renew Solar Ckt<br>vj220kV Jaisalmer(RS)-Fortum Solar Ckt<br>vj220kV Jaisalmer(RS)-Akal Ckt-1<br>vij220kV Jaisalmer(RS)-Akal Ckt-1<br>vij220kV Jaisalmer(RS)-Akal Ckt-2   |
| 5        | GI                | iD-1                  | Rajasthan        | 12-12-2024 12:25                             | 13-12-2024 03:35                | 15:10               | 1860                   | 0                                  | 3.444  | 0.000                                      | 54001                             | 60300                   | i)Generation of 220kV Azure 41(IP) station evacuates through 220 KV AzurePSS41 St_BHD_PG (APFOL)-Bhadia(PG) (Azure) Ckt. During antecedent condition, Azure 41(IP) station was generating approx. 294 MW (as per PMU), illy reported, at 122-Shx, 220 KV AzurePSS41 St_BHD_PG (APFOL)-Bhadia(PG) (Azure) Ckt tripped on B-N phase to earth fault due to differential protection operation (lexact reason and location of fault yet to be shared). iii] unliplue to tripping of 220 KV AzurePSS41 St_BHD_PG (APFOL)-Bhadia(PG) (Azure) Ckt, Azure 41(IP) S/s lost its connectivity from grid and blackout occurred at 220kV Azure 42(IP) S/s. however the state of  | i)220 KV AzurePSS41 SL_BHD_PG (APFOL)-Bhadla(PG) (Azure) Ckt   |
| 6        | G                 | SI-2                  | Uttar<br>Pradesh | 12-12-2024 12:02                             | 12-12-2024 14:15                | 02:13               | 0                      | 140                                | 0.000  | 0.228                                      | 54946                             | 61451                   | i)During antecedent condition, 400/220 kV 500 MVA ICT 1 and ICT 2 at Basti was carrying approx. 97 MW each. 400kV Gorakhpur (PG)-Basti(UP) (PG) Ckt-2 and 400 KV LUCKNOW_1[PG)-BASTI(UP) (PG) CkT-2 was in open condition and site engineers were checking wiring of LBB and carrying out Circuit Breaker at Basti end. ii)As reported, at 12:02 hrs, during CB timing testing of 400 KV LUCKNOW_1[PG)-BASTI(UP) (PG) CkT-2 (Z1) Bus-Bar protection operated due to malfunction of 89A Gas density Monitor.  iii]This led to the tripping obth 400kV Bus-18. II and the elements connected with them. III)As per Wold ad 400kV Lucknow(PG), no fault in system is observed. VISCADA data of 400/220 kV 500 MVA ICT 3 was in suspected condition before and tripping the tripping incident. VI)As per SCADA, change in demand of approx. 140MW is observed in UP control area.  | 1,400 KV Gorakhpur (PG)-Basti(UP) (PG) Ckt-1     18/1400/220 KV 500 MVA ICT 1 at Basti(UP)     18/1400/220 KV 500 MVA ICT 1 at Basti(UP)     18/1400 KV Luckow, 1/PG)-Basti(UP) (UP) Ckt-2     14/1400 KV Luckow, 1/PG)-Basti(UP) (PG) Ckt-1     14/1400 KV Tanda(NT)-Basti(UP) (UP) Ckt-1     14/1400 KV Tanda(NT)-Basti(UP) (UP) Ckt-1     14/1401 KV Tanda(NT)-Basti(UP) (UP) Ckt-1     14/1401 KV BUS REACTOR NO 1 AT 400 KV BUS REACTOR NO 1 AT 400 KV BUS REACTOR NO 1 AT 400 KV BUS REACTOR NO 1 AT |
| 7        | G                 | 5I-1                  | Haryana          | 13-12-2024 10:41                             | 13-12-2024 13:36                | 02:55               | 0                      | 40                                 | 0.000  | 0.060                                      | 55849                             | 66263                   | i) During antecedent condition, 220 KV Bhiwani-Charkhi Dadri (BB) Ckt-4, 220 KV Bhiwani-Charkhi Dadri (BB) Ckt-2 and 220 KV Bhiwani (HV)-Bhiwani (BB) (HVPNL) Ckt-2 were carrying appx. 18MW, 17MW and 186 MW respectively.  ii) As reported, at 10:41 hrs, load shifting from 220KV Bus-2 to Bus-1 at 400/220KV Bhiwani was being done to avail shutdown of 220KV Bus-2 under annual maintenance. During load shifting bus Bar protection operated causing tripping of 220KV Bus-2 and all the elements connected to it.  iii) At the same time, 220 KV Bhiwani (HV)-Bhiwani (BB) (HVPNL) Ckt-1 also tripped which was connected to 220kV Bus-1 (exact nature of protection operated yet to be shared). Detailed report of the tripping is yet to be furnished from SLOC end.  Iv) As per PMU at Bhiwani (BBMB), Ye phase to phase fault is observed with fault clearing time of ~120 ms.  V) As per SCADA, 40MW loss occurred in Haryana control area.   | 1)220 KV Bhiwani-Charkhi Dadri (BB) Ckt-4<br>ii)220 KV Bhiwani-Charkhi Dadri (BB) Ckt-2<br>ii)220 KV Bhiwani (HV)-Bhiwani (BB) (HVPNL) Ckt-1<br>v)220 KV Bhiwani(HV)-Bhiwani(BB) (HVPNL) Ckt-2<br>v)220 KV Bhiwani(HV)-Bhiwani(BB) (HVPNL) Ckt-1   |

|           |                                 |                    |  |                                 |                     |                        |                                    | Det  | tails of                                | Grid Eve                          | ents du                 | ring the Month of Dec 2024 in Northern Region  | ्रिड-इंडिया<br>GRID-INDIA  |
|-----------|---------------------------------|--------------------|--|---------------------------------|---------------------|------------------------|------------------------------------|--|---|-----------------------------------|-------------------------|--|--|
| SI<br>No. | Category of Grid<br>Event       | Affected Area      | Time and Date of occurrence of<br>Grid Event | Time and Date of<br>Restoration | Duration<br>(HH:MM) |                        | ration / loss of<br>the Grid Event | % Loss of genera<br>load w.r.t An<br>Generation/Lo<br>Regional Grid du<br>Even | tecedent<br>oad in the<br>ring the Grid | Antecedent Genera<br>the Regional |                         | Heief details of the event (pre fault and post fault system conditions)  | Elements Tripped   |
|           | ( GI lor GI 2/<br>GD-1 to GD-5) |                    |  |                                 |                     | Generation<br>Loss(MW) | Load Loss<br>(MW)                  | % Generation<br>Loss (MW)  | % Load<br>Loss (MW)                     | Antecedent<br>Generation (MW)     | Antecedent<br>Load (MW) |  |  |
| 8         | GI-2                            | Rajasthan          | 14-12-2024 18:05                             | 14-12-2024 19:00                | 00:55               | 0                      | 400                                | 0.000  | 0.685                                   | 47300                             | 58389                   | i)During antecedent condition, 400/220 kV 315 MVA ICT 1 and ICT 2 at Bikaner(RS) was carrying approx. 240MW each. 400KV Bikaner-Sikar(PG) Ckt-2 and 220kV Bikaner-Dungargarh (RS) line were in open condition.  ii)As reported, at 18:35 hrs, y phase isolator on 220KV side of 400/220 kV 315 MVA ICT 2 at Bikaner(RS) burnt and tripped.  iii)As per PMU at 8 bihadia/PG), R PMU tin system is observed with delayed fault clearance of 760ms.  iv)Due to tripping of ICT-2, PS implemented at Bikaner(RS) S/r related to overloading of remaining ICTs after tripping of any ICT operated. As per SPS scheme, 220kV Bikaner-Dungargarh (RS) line and 220kV Bikaner-Dungargarh (RS) line and 20xW Bikaner-Bord Dungargarh (RS) line and 20xW Bikaner-Bord Dungargarh (RS) line should open. However, 220kV Bikaner-Dungargarh (RS) line should open. However, 220kV Bikaner-Dungargarh (RS) line should open. However, 220kV Bikaner-Bord Dungargarh (RS) line should be safe to the specific properties of the specific properties of the specific properties of the specific properties of the specific properties.  in the specific properties of the specific properties of the specific properties of the specific properties of the specific properties. The specific properties of the specific proper | IJ400/220 kV 315 MVA ICT 1 at Bikaner(RS)<br>IIJ400/220 kV 315 MVA ICT 2 at Bikaner(RS)<br>IIJ125 MVAR BUS REACTOR NO 2 AT 400KV<br>BIKANER(RS)  |
| 9         | GD-1                            | Rajasthan          | 15-12-2024 11:35                             | 15-12-2024 12:30                | 00:55               | 1066                   | 0                                  | 1.942  | 0.000                                   | 54898                             | 62567                   | il/Generation of 2/20kV Azure 41(IP) station evacuates through 220 KV AzurePSS41 SL_BHD_PG (APFOL)-Bhadia(PG) (Azure) Ckt. which was generating approx. 294 MW (as per PMU). Similarly, 220kV Azure 24(IP) station evacuates through 220 KV BADDA(PG)-AZURE POWER 34 SOLAR(APTEL) (APTEL) CKT. 4 which was generating 1221MW (as per PMU). ii/As reported, at 11:35hrs, 220 KV AzurePSS41 SL_BHD_PG (APFOL)-Bhadia(PG) (Azure) Ckt tripped on B-th yhase to earth fault due to differential protection operation on account of broken jumper at tower location 50. At the same time 13 OM NA 220/33NV CT at 220kv AzurePS 43 also tripped on account of Differential relay protection (exact reason yet to be shared) iii)Due to tripping of 220 KV AzurePS541 SL_BHD_PG (APFOL)-Bhadia(PG) (Azure) Ckt and 130 MWA 220/33NV CT at 220kv AzurePS41 SL_BHD_PG (APFOL)-Bhadia(PG) (AzurePS41 SL_BHD_PG (AZUREPS41 SL_BHD_PG (AZUREPS41 SL_BHD_PG (AZUREPS41 SL_BHD)-PG (AZUREPS41 SL_BHD_PG (AZUREPS41 SL_BHD)-PG (A | i)220 KV AzurePSS41 SL_BHD_PG (APFOL)-<br>BhaddalPG (Azure) Ckt<br>ii)130 MWA 220/33KV ICT at 220kV Azure 34   |
| 10        | GD-1                            | Punjab             | 27-12-2024 13:48                             | 27-12-2024 14:52                | 01:04               | 0                      | 25                                 | 0.000  | 0.050                                   | 42449                             | 49705                   | i))220/66kV Mehal_Kalan has double main bus scheme at 220kV level. ii)JAs reported at 13:48 hrs, Bus Bar protection operated due to the damage in B-phase Circuit Breaker limb of 220 KV PAKHOWAL(PSTCL)- MEHAL- KALAN(PS) (PSTCL) CKT-1 (details yet to be furnished). iii)Due to the operation of Bus Bar protection all the elements connected in the 220KV system tripped. Complete blackout occurred at 220kV Mehal_Kalan S/s. Iv)As per PMU at Moga (PG), R-N phase to earth fault with fault clearing time of 120ms is observed. V)As per SCADA, change in demand of approx. 20 MW is observed in Punjab control area.  | 1)220 KV MOGA(PG)-MEHAL- KALAN(PS) (PSTCL) CKT-1 I)320 KV MOGA(PG)-MEHAL- KALAN(PS) (PSTCL) CKT-2 II3220 KV PAKHOWAL(PSTCL)- MEHAL- KALAN(PS) (PSTCL) CKT-1 WAJ220 KV PAKHOWAL(PSTCL)- MEHAL- KALAN(PS) (PSTCL) CKT-2  |
| 11        | GD-1                            | Uttar Pradesh      | 29-12-2024 15:56                             | 29-12-2024 16:54                | 00:58               | 35                     | 27                                 | 0.085  | 0.060                                   | 41015                             | 45099                   | ii)Duzing the antecedent condition, 2 generators at Tanakpur were generating 19MW (Unit-2) and 16MW (Unit-3).  iii)During the antecedent condition, 2 generators at Tanakpur were generating 19MW (Unit-2) and 16MW (Unit-3).  iii)As reported at 15:56 hrs, 220WC 86 Ganj-iDenha ckt tripped on Ya Bhase to phase fault, fault distance was "7.23km (2-1) from CB Ganj end. At the same time, all the other lines connected to 220 CB Ganj (except 290WC 86 Ganj-iSterangin) and 220WC Tanakpur-Shirarganj ckt also tripped 220 KV TANAKPUR(NH)-SITARGANU[PG] (PG) CKT tripped due to Y-B phase to phase fault with fault current of 1.14KA. The fault was in Zone-3.  ii)Purther, 132WC Tanakpur-Mahindermagne ckt was hand tripped for safety purpose leading to tripping of 31.4 MW Unit-28.3 at Tanakpur HEP due to loss of evacuation path.  ii)As per PMU at Barellly(PG), Y-B phase to phase fault with delayed fault clearing time of 920ms is observed.  iii)As per SADA, change in demand of approx. 27 MW is observed in Uttar Pradesh control area.   | 1)220 KV TANAKPUR(NH)-CBGANI(UP) (PG) CKF-1<br>ii)31.4 MW TANAKPUR HPS- UNIT 3<br>iii)31.4 MW TANAKPUR HPS- UNIT 2<br>WZ20 KV TANAKPUR HIS- TANGANI/PG) (PG) CKF-1<br>VJ220 to Barelliy-CB Gani (UP) ckt-1<br>vJ220 to Barelliy-CB Gani (UP) ckt-2<br>vii)220 kW Barelliy-CB Gani (UP) ckt-2<br>vii)220 KV CB Gani-Dohna<br>viii)132kV Tanakpur-Maindernagar ckt |
| 12        | GD-1                            | Rajasthan          | 29-12-2024 11:30                             | 29-12-2024 12:10                | 00:40               | 0                      | 305                                | 0.000  | 0.536                                   | 48669                             | 56913                   | 1)220/132kV Dausa[RS] has double main and transfer but scheme at 220kV level. ii)During antecedent condition, 220 kv Alway[RS]-Dausa[RS] Ckt and 220 kV Lakot(RS)-Dausa[RS] Ckt were not in service. iii)As reported, at 11:30 hrs, heavy, sparking in the isolator of the 220 kV BASS(IPG)-DAUSA[RS] (PG) CKT-1 resulted into snapping of conductor and line tripped. iii)As reported, at 11:30 hrs, heavy, sparking in the isolator of the 220 kV BASS(IPG)-DAUSA[RS] (PG) CKT-1 resulted into snapping of conductor and line tripped. iii)As the same time, all the elements connected to both the 220kV buses tripped and there was no source of supply at 132kV level, complete Diackout occurred at 220/132kV Dausa[RS] Vs. vs. Spark  | i)220 KV BASSI(PG-)-DALISA(RS) [PG] CKT-1<br>ii)220 KV BASSI(PG-)-DALISA(RS) [PG] CKT-2<br>iii)220 KV SAWAMADHOPUR(RS)-DALISA(RS) [PG]<br>CKT-1<br>ii)220 KV Sikarai - Dausa(RS) Ckt   |
| 13        | GI-1                            | Jammu &<br>Kashmir | 31-12-2024 05:57                             | 31-12-2024 09:16                | 03:19               | 0                      | 225                                | 0.000  | 0.501                                   | 33230                             | 44900                   | i)400/220kV Amargarh S/s have two bus at 220kV side i.e., main bus & reserve bus. ii)During antecedent condition, 220 kV Amargarh (NRSS XXXI)-Delina(PDD) (PDD IK) Ckt-1 and Ckt-2 were carrying 105 and 107 MW respectively and feeding Delina load. iii)As reported, at 05:57 hrs, 220 kV Amargarh (NRSS XXXI)-Delina(PDD) (PDD IK) D/C tripped from both ends on 8-kV phase to earth fault. iii)As per PMULA Amargarh (PG), two successive 8-kP phase to earth fault which cleared within 120 msec is observed. v/As per SCADA, change in demand of approx. 225MW is observed in J&K control area.  | i) J220 KV Amargarh (NRSS XXIX)-Delina (PDD) (PDD JK) Ckt-1 ii) 220 KV Amargarh (NRSS XXIX)-Delina (PDD) (PDD JK) Ckt-2  |
| 14        | GI-1                            | Jammu &<br>Kashmir | 31-12-2024 13:33                             | 31-12-2024 19:34                | 06:01               | 0                      | 78                                 | 0.000  | 0.142                                   | 51255                             | 54907                   | 1)220/132/33kV Bisnah 5/s have two bus at 220kV side i.e., main bus & reserve bus. ii)During antecedent condition, 220 kV SAMBA(PG)-BISHNAH(JK) (PDD JK) CKT-1 was carrying 76 MW load and feeding Bisnah load. iii)As reported, at 13:33 hrs, 1328/33X/50MVMCTc1 BisNHAH tripped na account of fire incident. At the same time 220 kV SAMBA(PG)-BISHNAH(JK) (PDD JK) CKT-1 also tripped. The tripping details are still awaited. iv)As per PMU a Amargarh(NIOKGIN), Vn Phase to earth fault with delayed fault clearing time of 880 msec is observed. v)As per SCADA, change in demand of approx. 78 MW is observed in J&K control area.  | i)220 KV SAMBA(PG)-BISHNAH(JK) (PDD JK) CKT-1<br>ii)132KV/J33KV SOMVA ICT-1 BISHNAH  |
| 15        | Gl-1                            | Jammu &<br>Kashmir | 31-12-2024 19:47                             | 31-12-2024 21:07                | 01:20               | 0                      | 235                                | 0.000  | 0.402                                   | 42675                             | 58436                   | 1)220/132k/ 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.   1)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.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   1)220/132kV Ziankote S/s Are on the same tower (D/C tower) and line length is "21.4km.   | i)220 KV Amargarh (INDIGRID)-Ziankote(JK) (PDD JK)<br>Ckt-1<br>ii)220 KV Amargarh (INDIGRID)-Ziankote(JK) (PDD JK)<br>Ckt-2  |

|           |                                 |               |  |                              |                     | ]                           | Details (                          | of Grid I   | Events                                  | during th                     | e Mont                    | h of Dec 2024 in Western Region   | श्रिड-इंडिया<br>GRID-INDIA  |
|-----------|---------------------------------|---------------|--|------------------------------|---------------------|-----------------------------|------------------------------------|---|---|-------------------------------|---------------------------|---|---|
| SI<br>No. | Category of Grid<br>Event       | Affected Area | Time and Date of occurrence of Grid<br>Event | Time and Date of Restoration | Duration<br>(HH:MM) | Loss of gene<br>load during | ration / loss of<br>the Grid Event | % Loss of genera-<br>load w.r.t An<br>Generation/Lo<br>Regional Grid du<br>Even | tecedent<br>oad in the<br>ring the Grid | Antecedent Genera<br>Regional | tion/Load in the<br>Grid* | Brief details of the event ( pre fault and post fault system conditions)  | Elements Tripped  |
|           | ( GI 1or GI 2/<br>GD-1 to GD-5) |               |  |                              |                     | Generation<br>Loss(MW)      | Load Loss<br>(MW)                  | % Generation<br>Loss (MW)   | % Load<br>Loss (MW)                     | Antecedent<br>Generation (MW) | Antecedent<br>Load (MW)   |   |   |
| 1         | GI-2                            | WR            | 01-12-2024 17:42                             | 01-12-2024 19:05             | 01:23               | 761                         | -                                  | 1.11%   | -                                       | 68467                         | 62485                     | At 17:42 hrs / 01-12-2024, 400 kV RKM-Bus Reactor-1 (50 MVAR) tripped on Over current earth fault protection operation due to failure of R-phase Lightening arrester top stack. Non operation of differential protection operation of 8us reactor is undesirable. After 6 cycles of fault occurrence, RKM Unit-1, 236, 360 MW) tripped simaltaneously on over current protection operation, which was undesirable since fault was outside the zone of protection. Generation loss of 761 MW at RKM thermal power plant due to the event.  | Tripping of following Elements:<br>1. 400 K RKM-Bus Reactor-1 (50 MVAR)<br>2. RKM Unit-1,283 (360 MW)<br>3. RKM GT-4 (Idle Charged)             |
| 2         | GI-1                            | WR            | 03-12-2024 12:31                             | 03-12-2024 17:25             | 04:54               | -                           | 48                                 | -   | 0.07%                                   | 75782                         | 70089                     | At 12:31 hrs / 03.12-2024, 220 kV Saki-Bus-2 and all connected elements (as mentioned in elements tripped column) tripped on bus bar protection operation due to fault in Y phase 220 kV Earth cum Disconnector Switch (EDS) Bus-2 side module of Bus coupler bay because of internal flashover. Load loss of 48 MW occurred at Saki and downstream network due to the event.   | Tripping of following Elements: 1. 220 kV Saki-Bus-2 2. 220 kV Saki-Arrey-2 3. 220 kV Saki-FbC-2 3. 220/33 kV Saki-ICT-2 (125 MVA)              |
| 3         | GD-1                            | WR            | 09-12-2024 15:57                             | 09-12-2024 16:32             | 00:35               | 927                         | -                                  | 1.19%   | -                                       | 77952                         | 67855                     | At 15:57 hrs / 09-12-2024, 400 kV KSK Mahanadi-Champa-4 tripped on phase to phase fault from KSK end only on Z-1, during inspection dead bird was found near the 400 kV KSK Mahanadi-Champa-4 bay at KSK switchyard. Prior to the incident 400 kV KSK Mahanadi-Champa-3 was under planned shutdown from 10:34 po 9-12-2024 for AMP Work. Due to this KSK Mahanadi-Init-283 (600 MW) tripped due to loss of evacuation path. Generation loss of 927 MW occurred at KSK Mahanadi Thermal Power Plant.   | Tripping of following Elements:<br>1. 400 kV KSK Mahanadi-Champa-4<br>2. KSK Mahanadi-Unit-2&3 (600 MW)   |
| 4         | GD-1                            | WR            | 10-12-2024 02:58                             | 10-12-2024 06:29             | 03:31               | -                           | -                                  | -   |   | 62011                         | 48055                     | At 02:58 hrs / 10-12-2024, 220 kV Barsaita Desh- Rewa 1 tripped only at Barsaita Desh end on Differential protection operation and Barsaita Desh- Rewa 2 tripped at Rewa end only (No indication as reported by Powergrid WR-2) During charging of 220/38 kV Barsaita Desh-Tc2 which was under planned shutdown for AMP work since 19:37 hrs / 09-12-2024. With these trippings 220 kV Barsaitadesh Solar Plant became dead. No generation loss occurred due to the event.  | Tripping of following Elements:<br>1. 220/33 kV Barsalta Desh ICT-18.3<br>2. 220 kV Barsalta Desh-Bus-18.2<br>3. 220 kV Barsalta Desh-Rewa-18.2 |
| 5         | GI-2                            | WR            | 11-12-2024 15:04                             | 11-12-2024 16:42             | 01:38               | -                           | •                                  | -   | -                                       | 77282                         | 63584                     | At 15:04 hrs / 11-12-2024, 400 kV Vapi II-Vapi(PG)-1&2 tripped on SOTF indication during CSD commisioning in main bay of 400 kV Vapi II-Bus Reactor at Vapi II, current in 8 phase of these lines reached upto 5.43 kA. After 1.1 seconds 400 kV Vapi II-Kakrapar 3&4-2 tripped on Zone-1 B-E fault. No generation or load loss occurred during the event   | Tripping of following Elements:<br>1. 400 kV Vapi II-Vapi(PG)-1.8.2<br>2. 400 kV Vapi II-Bus Reactor  |
| 6         | GD-1                            | WR            | 17-12-2024 07:12                             | 17-12-2024 12:09             | 04:57               | 95                          | -                                  | 0.12%   | -                                       | 76284                         | 63494                     | At 07:12 hrs / 17-12-2024, 220kV Bhuj-Vadva tripped on B-E fault without auto recloser attempt at both ends. At the time of patrolling no abnormalities were found. Generation loss of 95 MW occurred at Vadva (GIWEL-II) Wind Power plant due to loss of evacuation path.  | Tripping of following Elements:<br>1. 220 kV Vadva- Bhuj-1  |
| 7         | GI-2                            | WR            | 26-12-2024 17:52                             | 26-12-2024 19:42             | 01:50               | 719                         | -                                  | 0.93%   | -                                       | 77498                         | 67240                     | At 17:52 hrs / 26-12-2024, JPL Stage 1-Unit-1,2&3 (250 MW) tripped on over current to earth fault during charging of 400 kV JPL Stage 1-JPL Stage 2-J/C line, the line tripped on pole discrepancy operation. The tripping of units was undesirable.  In earlier incidences of tripping of 400 kV JPL Stage 1-JPL Stage 2-J/C line at 06:12 hrs / 23-12-2024 and 05:22 hrs / 26-12-2024 on differential, 400 kV JPL Stage 2-Tamnar-3 tripped instantaneously for a fault in 2-3 at Tamnar end (Main 2 relay tripped for a fault seen in 2-3 by Main-1 relay). Generation loss of 719 MW occurred at JPL Stage 1 due to tripping of JPL Stage 1-Unit-1,2&3 (250 MW). | Tripping of following Elements:<br>1. JPL Stage 1-Unit-1,283 (250 MW)   |
| 8         | GD-1                            | WR            | 28-12-2024 12:22                             | 28-12-2024 15:31             | 03:09               | 28                          | •                                  | 0.04%   | -                                       | 71360                         | 62001                     | At 12:22 hrs / 28-12:2024, 220 kV Bhawsingpura-Khandwa-1 tripped on persistent R-E fault, auto recloser attempted from Khandwa end only. Due to this 220 kV Bhawsingpura-Kanwani-1 radial line also tripped due to disconnection with grid. Generation loss of 28 MW occurred at Bhawsingpura and Kanwani (Masaya) Solar Plant due to the above event.  | Tripping of following Elements:<br>1. 220 kV Bhawsingpura-Khandwa-1<br>2. 220 kV Bhawsingpura-Kanwani-1   |
| 9         | GI-2                            | WR            | 28-12-2024 19:52                             | 28-12-2024 23:14             | 03:22               | -                           | -                                  | -   | -                                       | 62011                         | 49653                     | At 19:52 hrs / 28-12-2024, 765 kV Champa-Bus-3 tripped on busbar protection operation resulting in tripping of all connected Main Bays of element and 765 kV Champa-Rotra-1 due to flashover in R phase CT of 765 kV Champa Kotra-1 Earlier at 19:50 hrs / 28-12-2024, 765 kV Champa-HC-13 tripped on Differential protection operation due to failure of its B phase CT. At 22:13 hrs / 28-12-2024, 765 kV Champa-Dharamjaigarh-1 tripped due to failure of its B phase CT. As informed by Powergrid, weather conditions at Champa deteriorated with very heavy wind, lightening and stormy rain. No generation or load loss occurred due to the event             | Tripping of following Elements: 1. 765 kV Champa-Bus-3 2. 765 kV Champa-Kotra-1 3. 765 kV Champa-Oharamjaigarh-1 4. 765 kV Champa-ICT-3         |

|   |                                 |                   |  |                              |                     |  | Details of Grid Events during the Month of Dec 2024 in Southern Region |                           |                     |   |                         |  |  |  |  |  |  |  |  |  |
|---|---------------------------------|-------------------|--|------------------------------|---------------------|--|--|---------------------------|---------------------|---|-------------------------|--|--|--|--|--|--|--|--|--|
|   | Category of Grid<br>Event       | Affected Area     | Time and Date of<br>occurrence of Grid Event | Time and Date of Restoration | Duration<br>(HH:MM) | Loss of generation / loss of<br>load during the Grid Event |  |                           |                     | Antecedent Generation/Load in the<br>Regional Grid* |                         | Brief details of the event ( pre-fault and post fault system conditions) Elements Tripped  |  |  |  |  |  |  |  |  |
|   | ( GI 1or GI 2/<br>GD-1 to GD-5) |                   |  |                              |                     | Generation<br>Loss(MW)                                     | Load Loss<br>(MW)  | % Generation<br>Loss (MW) | % Load<br>Loss (MW) | Antecedent<br>Generation (MW)                       | Antecedent<br>Load (MW) |  |  |  |  |  |  |  |  |  |
|   | 1 GD - 1                        | KERALA            | 02-12-2024 08:43                             | 02-12-2024 09:41             | 00:58               | 0  | 84   | 0.00%                     | 0.19%               | 43163.61  | 44957.27                | Complete Outage of 220kV/110kV/33kV Punnapura SS of KSEB: The triggering incident was failure of HV side Y-phase CT of 200MVA 220kV/110kV Transformer#2 at Punnapura SS resulting in 220kV Bus-2 fault. Due to non-operation of 8BP PALLOM-1, PUNNAPRA - 220kV, PUNNAPRA - 220kV, PUNNAPRA - 220kV - Bus 1, PUNNAPRA - 220kV Punnapura SS of KSEB.   |  |  |  |  |  |  |  |  |
|   | 2 GD - 1                        | TAMILNADU         | 03-12-2024 11:00                             | 03-12-2024 11:15             | 00:15               | 24   | 0  | 0.05%                     | 0.00%               | 44192.0   | 44403.98                | Complete Outage of 400kV/110kV Thappagundu SS of TANTRANSCO: During antecedent conditions, 400kV Annaikadavu Thappagundu line-2 was under outage. The triggering incident was RN fault in 400kV Annaikadavu Thappagundu line-1.  Due to loss of both 400kV connected lines there was complete outage of 400kV/110kV Thappagundu SS of TANTRANSCO.  |  |  |  |  |  |  |  |  |
| 3 | GD - 1                          | NDHRA PRADE       | 04-12-2024 17:44                             | 04-12-2024 20:35             | 02:51               | 5  | 0  | 0.01%                     | 0.00%               | 41532.08  | 45168.3                 | Complete Outage of 400kV Greenko CPSS, 400kV AMGEPL Wind Plant, and 400kV Pinnapuram PSP: During antecedent conditions, 400kV Greenko CPSS, 400kV AMGEPL Wind Plant and 400kV Pinnapuram PSP were radially connected to 400kV/11kV GREENKO_PSP-ST-1, 755kV/400kV Kurnool SS through 400kV Greenko CPSS Kurnool line-1. Triggering Incident was inadvertent tripping of 400kV/18kV GREENKO_PSP-GT-3, 400kV Greenko CPSS kurnool line-1 at Greenko CPSS and during testing activity. This resulted in the complete outage of 400kV/33kV AMGEPL_WIND-ICT-2 400kV Greenko CPSS, 400kV AMGEPL Wind Plant, and 400kV Pinnapuram PSP. |  |  |  |  |  |  |  |  |
|   | 4 GD - 1                        | TAMILNADU         | 13-12-2024 15:06                             | 13-12-2024 16:06             | 01:00               | 0  | 169  | 0.00%                     | 0.35%               | 40286.8   | 48649.96                | Complete Outage of 400kV/230kV/110kV Tharamani SS of TANTRANSCO: 230kV Tharamani Bus-2 was not in service during antecedent conditions. As per the reports submitted, the triggering incident was tripping of 230kV Bus-1 BBP on maloperation. Tripping of 230kV Tharamani Bus-1 led to complete outage of 400kV/230kV Tharamani SS.   |  |  |  |  |  |  |  |  |
|   | 5 GD - 1                        | ANDHRA<br>PRADESH | 29-12-2024 16:30                             | 30-12-2024 06:44             | 14:14               | 0  | 0  | 0.00%                     | 0.00%               | 37520.27  | 46882.62                | Complete Outage of 400kV RYTPP Generating station of APGENCO: As per the reports submitted, the triggering incident was tripping of 400kV RYTPP Kalikiri Line-1&2 on over voltage at 19:41hrs and 16:30hrs respectively. Tripping of both lines led to complete outage of 400kV RYTPP Generating station.  |  |  |  |  |  |  |  |  |
|   | 6 GI-2                          | KARNATAKA         | 02-12-2024 20:52                             | 02-12-2024 23:10             | 02:18               | 340  | 40   | 0.01                      | 0.0                 | 35595.59  | 39442.84                | Tripping of 400kV Bus-1 at 400kV/220kV Jindal TPS: The triggering incident was breaker flashover (Unit side to Grid side external breaker flashover) in Unit-6 during synchronizing the unit. Due to the breaker flash-over Y-pole started JINDAL - 400kV - Bus 1, 400kV/220kV JINDAL-ICT-1, 400kV/220kV conducting even when the breaker was open leading to LBB operation and tripping of 400kV Bus-1 at 400kV/220kV Jindal JINDAL-ICT-2, JINDAL - UNIT 3, JINDAL - UNIT 5, JINDAL - UNIT 6 TPS.   |  |  |  |  |  |  |  |  |

|           |                                 |                             |   |                              |                     |                        |                                     | Details o   | f Grid                                  | Events d  | uring th                | ne Month of Dec 2024 in Southern Region  | ि ग्रिड-इंडिया<br>GRD-INDIA  |
|-----------|---------------------------------|-----------------------------|---|------------------------------|---------------------|------------------------|-------------------------------------|---|---|---|-------------------------|--|--|
| SI<br>No. | Category of Grid<br>Event       | Affected Area               | Time and Date of occurrence of Grid Event | Time and Date of Restoration | Duration<br>(HH:MM) |                        | eration / loss of<br>the Grid Event | % Loss of gener-<br>load w.r.t An<br>Generation/L<br>Regional Grid du<br>Even | tecedent<br>oad in the<br>ring the Grid | Antecedent Generation/Load in the<br>Regional Grid® |                         | Brief details of the event ( pre fault and post fault system conditions)   | Elements Tripped   |
|           | ( GI 1or GI 2/<br>GD-1 to GD-5) |                             |   |                              |                     | Generation<br>Loss(MW) | Load Loss<br>(MW)                   | % Generation<br>Loss (MW)   | % Load<br>Loss (MW)                     | Antecedent<br>Generation (MW)                       | Antecedent<br>Load (MW) |  |  |
| 7         | GI-2                            | KARNATAKA                   | 02-12-2024 21:35                          | 02-12-2024 23:10             | 01:35               | 211                    | 97                                  | 0.01  | 0.0                                     | 33965.06  | 37981.08                | Tripping of 400kV Bus-2 of 400kV/220kV Jindal TPS: The triggering incident was Y-N fault after isolator and before the breaker at TR-18 of Jindal TPS (within the bus zone). During the previous event at 20:52 Hrs all the elements connected to 400kV Bus-1 tripped including TR-18 breaker. For the restoration of TR-18, the isolator to Bus-2 was closed on a suspected Y-N fault leading to Bus bar protection operation and tripping of all elements connected to 400kV Bus-2.  | JINDAL - 400KV - Bus 2,<br>400KV-JINDAL-BPS-3,<br>400KV-JINDAL-BPS-4 |
| 8         | GI-1                            | ANDHRA<br>PRADESH           | 06-12-2024 23:09                          | 06-12-2024 23:42             | 00:33               | 0                      | 0                                   | 0.0   | 0.0                                     | 36147.52  | 40076.54                | Tripping of 220kV Bus of 220/132 kV KV_KOTA_OLD SS: The triggering incident was Y-ph CT failure of 220kV KV_Kota-<br>KV_Kota_Old-1 at KV_Kota Old station, Bus Bar protection operated leading to the tripping of all the elements connected<br>to 220kV Bus. This led to the de-energization of 220kV Bus of 220/132 kV KV_KOTA_OLD SS. The 132kV network was<br>intact during the event.   |  |
| 9         | GI-2                            | KARNATAKA                   | 14-12-2024 13:49                          | 14-12-2024 15:49             | 02:00               | 0                      | 0                                   | 0.0   | 0.0                                     | 42144.93  | 46943.85                | Tripping of 400kV Bus-2 of RTPS of KPCL: As per the reports submitted, the triggering incident was tripping of 400kV RTPS Bus-2 on operation of BBP due to intiation of LBB trip from Main breaker of GT-7. This led to tripping of all elements connected to 400kV RTPS Bus-2.  | RTPS - 400KV - Bus 2   |
| 10        | GI-1                            | KARNATAKA<br>TAMILNADU      | 19-12-2024 13:58                          | 19-12-2024 17:20             | 03:22               | 0                      | 40                                  | 0.0   | 0.0                                     | 44453.45  | 51590.07                | Tripping of 220kV Bus-2 at 220kV/66kV YERRAANDAHALLI: In the antecedent conditions, 220/66kV YERRAANDAHALLI is operating in bus split condition at 220kV level, where in 220kV Bus-2 was radially connected to 220kV Yerrahandalli Hosur line. The triggering incident is the R-N fault in the 220kV Yerrahandalli-Hosur line, the line tripped at both ends on Z1 protection. The tripping of the only line connected to Bus-2 led to the tripping of 220kV Bus-2 at 220kV/66kV YERRAANDAHALLI.   | 220KV-YERRAANDAHALLI-HOSUR-1   |
| 11        | GI-1                            | KARNATAKA<br>TAMILNADU      | 21-12-2024 13:23                          | 21-12-2024 13:50             | 00:27               | 0                      | 36                                  | 0.0   | 0.0                                     | 45329.61  | 50797.74                | Tripping of 220kV Bus-2 at 220kV/66kV YERRAANDAHALLI: In the antecedent conditions, 220/66kV YERRAANDAHALLI is operating in bus split condition at 220kV level, where in 220kV Bus-2 was radially connected to 220kV Yerrahandalli Hosur line. The triggering incident is the R-N fault in the 220kV Yerrahandalli-Hosur line, the fault was sensed in Z1 at both ends, at Hosur end AR operated and AR was successful and the line was holding, at Yerrahandalli end as AR is disabled and 3ph tripped. The tripping of the only line connected to Bus-2 led to the tripping of 220kV Bus-2 at 220kV/66kV YERRAANDAHALLI. | 220KV-YERRAANDAHALLI-HOSUR-1   |
| 12        | GI-1                            | KARNATAKA<br>,<br>TAMILNADU | 21-12-2024 14:45                          | 21-12-2024 15:28             | 00:43               | 0                      | 27                                  | 0.0   | 0.0                                     | 45410.32  | 51561.68                | Tripping of 220kV Bus-2 at 220kV/66kV YERRAANDAHALLI: In the antecedent conditions, 220kV/66kV YERRAANDAHALLI is operating in bus split condition at 220kV level, where in 220kV Bus-2 was radially connected to 220kV Yerrahandalli Hosur line. The triggering incident is the R-N fault in the 220kV Perrahandalli-Hosur line, the line tripped at both ends on Z1 protection. The tripping of the only line connected to Bus-2 led to the tripping of 220kV Bus-2 at 220kV/66kV YERRAANDAHALLI.   | 220KV-YERRAANDAHALLI-HOSUR-1   |

|           |                                 |               |   |                                 |                     |                        | Det                               | ails of G   | rid Ev                                  | ents durii                     | ng the N                | Month of Dec 2024 in Eastern Region  | गिड-इंडिया<br>GRID-INDIA                                       |
|-----------|---------------------------------|---------------|---|---------------------------------|---------------------|------------------------|-----------------------------------|---|---|--------------------------------|-------------------------|--|--|
| SI<br>No. | Category of Grid<br>Event       | Affected Area | Time and Date of occurrence of Grid Event | Time and Date of<br>Restoration | Duration<br>(HH:MM) |                        | ration / loss of<br>he Grid Event | % Loss of genera<br>load w.r.t An<br>Generation/Lo<br>Regional Grid du<br>Event | tecedent<br>oad in the<br>ring the Grid | Antecedent General<br>Regional |                         | Brief details of the event ( pre fault and post fault system conditions)   | Elements Tripped   |
|           | ( GI 1or GI 2/<br>GD-1 to GD-5) |               |   |                                 |                     | Generation<br>Loss(MW) | Load Loss<br>(MW)                 | % Generation<br>Loss (MW)   | % Load<br>Loss (MW)                     | Antecedent<br>Generation (MW)  | Antecedent<br>Load (MW) |  |  |
| 1         | GD-I                            | JSPL (CPP)    | 19.12.2024 13:27                          | 19.12.2024 14:40                | 01:13               | 00:00                  | 533                               | 1.91%   | 2.97%                                   | 26591                          |                         | At 13:27 Hrs, 400 kV JSPL-Meramundali D/c tripped due to a fire incident at tower Loc. 62. Consequently, 400 kV Bus-182 at JSPL became dead. Captive power plant JSPL has 6 units of 135 MW capacity each. Unit-1 with emergency load of 107 MW was separately connected with 220 kV Bus-1 (220 kV bus-coupler remaining open). Unit-6 is under overhauling and other 4 units (unit-2,3.4,5) connected to 220 kV Bus-2 were generating around 508 MW and rest around 25 MW was imported from grid for its captive load. As both evacuating lines tripped, the captive island didn't survive. | 400 kV Meramundali-JSPL D/c<br>U#2,3,4,5 (135 MW) each at JSPL |

|           |                                 |  |   |                              | De                  | etails o                    | f Grid l                            | Events di   | ıring t             | he Month  | of Dec                  | 2024 in North Eastern Region  | ि शिड-इंडिया<br>GRID-INDIA  |
|-----------|---------------------------------|--|---|------------------------------|---------------------|-----------------------------|-------------------------------------|---|---------------------|---|-------------------------|---|---|
| SI<br>No. | Category of Grid<br>Event       | Affected Area  | Time and Date of occurrence of Grid Event | Time and Date of Restoration | Duration<br>(HH:MM) | Loss of gen-<br>load during | eration / loss of<br>the Grid Event | % Loss of generation / loss of<br>load w.r.t Antecedent<br>Generation/Load in the<br>Regional Grid during the Grid<br>Event |                     | Antecedent Generation/Load in the<br>Regional Grid* |                         | Brief details of the event ( pre fault and post fault system conditions)  | Elements Tripped  |
|           | ( GI 1or GI 2/<br>GD-1 to GD-5) |  |   |                              |                     | Generation<br>Loss(MW)      | Load Loss<br>(MW)                   | % Generation<br>Loss (MW)   | % Load<br>Loss (MW) | Antecedent<br>Generation (MW)                       | Antecedent<br>Load (MW) |   |   |
| 1         | GD I                            | Monarchak and Rokhia S/S<br>of Tripura Power System                                    | 06-12-2024 13:06                          | 06-12-2024 14:05             | 00:59               | 17                          | 8                                   | 1.10%   | 0.40%               | 1550  | 1980                    | Monarchak and Rokhia S/S of Tripura Power System was connected with rest of NER Grid through 132 kV Monarchak – Udaipur Line, 132 kV Monarchak – Rokhia line and 132 kV Rokhia – Agartala D/C lines. A fl. 13:06 Hrs Of 05.12.204, 132 kV Monarchak – Udaipur Line, 132 kV Monarchak – Rokhia line and 132 kV Rokhia – Agartala D/C lines tripped along with Rokhia unit-9 due to which Monarchak and Rokhia areas of Tripura Power System got Isolated from NER Grid and collapsed due to no source available in these areas Power supply was extended to Monarchak area of Tripura Power System by charging 132 kV Monarchak – Udaipur Line at 13:28 Hrs of 06:12.2024 and power extended to Rokhia S/S by charging 132 kV Monarchak-Rokhia line at 14:05 Hrs of 06:12.2024.  | 132 kV Monarchak – Udaipur Line, 132 kV Monarchak<br>– Rokhia line and 132 kV Rokhia – Agartala D/C lines |
| 2         | GD1                             | Along and Pasighat areas<br>of Arunachal Pradesh<br>Power System                       | 08-12-2024 03:46                          | 08-12-2024 05:12             | 01:26               | 0                           | 2                                   | 0.00%   | 0.14%               | 1632  | 1448                    | Along and Pasighat areas of Arunachal Pradesh Power System were connected with rest of NER Grid through 132 kV Along-Basar & 132 kV Roing-Pasighat lines. At 03:46 Hrs of 08-12-2024, 132 kV Along-Basar line, 132 kV Along-Pasighat Line and 132 kV Roing-Pasighat line tripped. Due to tripping of these elements, Along and Pasighat 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 and Pasighat areas of Arunachal Pradesh Power System by charging 132 kV Roing-Pasighat Line at 05:12 Hrs of 08-12-2024.  | 132 kV Along-Basar line, 132 kV Along-Pasighat Line<br>and 132 kV Roing-Pasighat line                     |
| 3         | GD I                            | Pavoi area of Assam Power<br>System  | 16-12-2024 15:43                          | 16-12-2024 16:23             | 00:40               | 0                           | 11                                  | 0.00%   | 0.53%               | 1954  | 2070                    | Pavoi (BNC) area of Assam Power System was connected with rest of NER Grid through 132 kV BNC-Pavoi 1 & 2 & 132 kV Gohpur-Pavoi 1 & 2 lines. At 15:43 hrs of 16-12-2024, 132 kV BNC-Pavoi 1 & 2 & 132 kV Gohpur-Pavoi 1 & 2 lines tripped. Due to tripping of these elements, Pavoi 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 Pavoi area of Assam Power System by charging 132 kV Gohpur-Pavoi 1 & 2 lines at 16:23 Hrs of 16-12-2024.  | 132 kV BNC-Pavol 1 &2 & 132 kV Gohpur-Pavol 1 & 2<br>lines  |
| 4         | GD I                            | Sonabil, Ghoramari,<br>Depota, Dhekiajuli and<br>Rowta areas off Assam<br>Power System | 20-12-2024 15:04                          | 20-12-2024 15:24             | 00:20               | 0                           | 57                                  | 0.00%   | 2.79%               | 2051  | 2044                    | Sonabil, Ghoramari, Depota, Dhekiajuli and Rowta areas of Assam Power System was connected with rest of NER Grid through 220 kV Balipara-Sonabil II line. Prior to the event, 220 kV Balipara-Sonabil I line was under shutdown. 132 kV Rowta-Siphajhar and 132 kV Rowta-Tangla lines was open due to system requirement. At 15:04 Hrs of 20-12-204, 220 kV Balipara-Sonabil line tripped and 595 at Sonabil operated successfully which caused tripping of 2001,132 kV, 100 MVA ICT-18. II at Sonabil. Due to tripping of these elements, Sonabil, Ghoramari, Depota, Dhekiajuli and Rowta areas of Assam Power System got solated from NER Grid and collapsed due to no source available in these areas.  Power supply was extended to the affected areas by charging 220/132kV Sonabil ICT#1 & 2 at 15:24 Hrs of 20-12-2024. | 220 kV Balipara-Sonabil II line   |