



भारत सरकार  
Government of India  
विद्युत मंत्रालय  
Ministry of Power  
पूर्वी क्षेत्रीय विद्युत समिति

**Eastern Regional Power Committee**

14, गोल्फ क्लब रोड, टॉलीगंज, कोलकाता-700033  
14 Golf Club Road, Tollygunj, Kolkata-700033



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**NO. ERPC/PROTECTION/2021/ 668**

**DATE: 06/09/2021**

To,  
As per list enclosed,

**Sub: Notice for 106<sup>th</sup> Protection Coordination sub-Committee (PCC) Meeting of ERPC.**

Sir,

Notice is hereby given that **106<sup>th</sup> PCC meeting** of ERPC will be held on **16.09.2021(Thursday)** from **10:30 hrs** through **online Microsoft Teams meeting platform**. The meeting link will be forwarded through e-mail or message. You are requested to enter the participant name and designation and organisation name while joining the meeting. The following coordinator may be contacted for any assistance:

Kumar Satyam, Asst. Director-II, ERPC, Mob: 7355225072, E-mail: [satyam.24365@gov.in](mailto:satyam.24365@gov.in)

The tentative agenda items for discussion will be as follows:

- 1) Confirmation of the minutes of 105<sup>th</sup> Protection sub-Committee Meeting of ERPC.
- 2) Analysis of following grid disturbances of July 2021:
  - Disturbance at 220 kV Sonenagar (BSPTCL) Substation on 06/08/2021 at 15:28 Hrs
  - Disturbance at 220 kV TTPS (NTPC) Substation on 11/08/2021 at 13:34 Hrs
- 3) Status of Implementation of Islanding Schemes in Eastern Region.
- 4) Follow up of decision of previous Protection Coordination sub-Committee Meetings.
- 5) Single line tripping incidences of transmission elements for **August 2021** as enclosed at **Annexure-1**.

You are requested to kindly furnish the detail report along with all records (SLD, SOE, DR, Relay and schematic diagram of auxiliary supply, wherever applicable) related to above tripping well in advance for meaningful analysis. You are also requested to upload the details in on-line tripping incident reporting system implemented in Protection Database Management System ( [www.erpc-protectiondb.in](http://www.erpc-protectiondb.in) ).

Your participation in the meeting is highly solicited.

Yours faithfully,

  
(D. K. Bauri)

**Superintending Engineer (O& PS)**

**LIST OF ADDRESSES:**

|                                                                                                                                                                     |                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chief Engineer, Trans (O&M)<br>Bihar State Power Transmission Limited,<br>VidyutBhawan, Bailey Road, Patna-800021                                                   | Electrical Supeeerintending Engineer (CRITL)<br>Bihar State Power Transmission Limited,<br>VidyutBhawan,Bailey Road, Patna-800021                                                                           |
| Chief Engineer( System Operation), SLDC ,<br>BSPTCL, Patna-800021                                                                                                   |                                                                                                                                                                                                             |
| Chief Engineer (SLDC)<br>Damodar Valley Corporation, GOMD-I Premises,<br>P.O.- DaneshSeikh Lane, Howrah- 711109                                                     | Chief Engineer (CTC)<br>Damodar Valley Corporation, P.O. Maithon Dam, Dist.<br>Dhanbad,Jharkhand-828207                                                                                                     |
| Chief Engineer, (CRITL)<br>Jharkhand UrjaSancharan Nigam Limited<br>Kusai Colony, Doranda, Ranchi-834002                                                            | Electrical Superintending Engineer (CLD)<br>Jharkhand UrjaSancharan Nigam Limited,<br>KusaiColony,Doranda, Ranchi-834002                                                                                    |
| Chief General Manager (O&M),<br>OPTCL, Janpath, Bhubaneswar,<br>Odisha – 751 022. FAX: 0674-2542932<br><a href="mailto:cgm.onm@optcl.co.in">cgm.onm@optcl.co.in</a> | Sr. General Manager (PPA), Technical Wing,<br>OHPCL, Orissa State Police Housing & Welfare Corpn.<br>Bldg. VaniviharChowk, Janpath, Bhubaneswar-752022                                                      |
| Chief Load Dispatcher, SLDC<br>OPTCL, P.O. Mancheswar Rly. Colony<br>Bhubaneswar-751017                                                                             | Chief Engineer (Testing), WBSETCL<br>Central Testing Laboratory, Abhikshan, Salt Lake,<br>Kolkata-700091 ( Fax no. 2367-3578/1235 )                                                                         |
| Chief Engineer (CLD)<br>WBSETCL, P.O.Danesh Sheikh Lane,<br>AndulRoad, Howrah-711109                                                                                | Addl. Chief Engineer (ALDC)<br>West Bengal Electricity Distribution Company Ltd<br>VidyutBhavan, 7 <sup>th</sup> Floor, Bidhannagar, Sector-I<br>Salt Lake City, Kolkata-700091(Fax-033-2334-5862)          |
| Dy. Chief Engineer (Testing)/ Sr. Manager (Testing)<br>CESC Ltd.,4, SasiSekhar Bose Road,<br>Kolkata-700025                                                         | General Manager (O&M)<br>KhSTPS, NTPC Ltd., P.O.Deepti Nagar,<br>Dist. Bhagalpur, Bihar-813203                                                                                                              |
| General Manager(O&M)<br>FSTPS, NTPC Ltd., P.O. Nabarun,<br>Dist. Murshidabad, West Bengal-742236                                                                    | Dy. General Manager (Engineering),<br>WBPDC, OS Dept. Corporate Office, 3/C, LA Block,<br>Salt Lake-III, Kolkata-700098 (Fax-033-23350516)                                                                  |
| General Manager (O&M)<br>Barh STPS, NTPC Ltd., P.O. NTPC Barh,<br>Dist. Patna, Bihar-803213                                                                         | General Manager (OS), ERHQ-II, NTPC Ltd., 3 <sup>rd</sup> flr.<br>OLIC Building, Plot no. N 17/2, Nayapalli, Unit-8<br>Bhubaneswar- 751012 (Fax No. 0674-2540919)                                           |
| General Manager(O&M), TSTPS, NTPC Ltd.,<br>P.O.Kaniha, Dist. Angul, Orissa-759117                                                                                   | General Manager (O&M), POWERGRID, Odisha<br>Projects, Sahid Nagar, Bhubaneswar – 751 007                                                                                                                    |
| General Manager (OS), ERHQ-I, NTPC Ltd.,<br>LoknayaJaiprakashBhawan, (2 <sup>nd</sup> Floor),<br>DakBunglowChawk, Patna-800001                                      | Manager (Electrical), Adhunik Power & Natural<br>Resources Ltd. “Lansdowne Towers, Kolkata-700020<br>(Fax No. 033-2289 0285)                                                                                |
| Executive Director (O&M)<br>NHPC Ltd., NHPC Office Complex, Sector-33,<br>Faridabad, Haryana-121003 (Fax-01292272413)                                               | Electrical Superintending Engineer, TTPS,<br>TenughatVidyut Nigam Ltd.,Lalpania, Dist. Bokaro,<br>Jharkhand-829149                                                                                          |
| Dy. General Manager (Electrical)<br>IB Thermal Power Station, OPGCL<br>Banhapalli, Dist. Jharsuguda-768234, Orissa                                                  | General Manager (OS), ER-I<br>Power Grid Corporation of India Ltd.,<br>Alankar Place, Boring Road, Patna-800001                                                                                             |
| Chief Engineer (Trans.)<br>Power Deptt., Govt. of Sikkim, Gangtok-731010                                                                                            | Sr. Manager (CTMC)<br>Durgapur Projects Limited,Durgapur-713201                                                                                                                                             |
| Executive Director,<br>ERLDC, POSOCO, Tollygunge, Kolkata-700033                                                                                                    | ShriA.K.Nayak/ShriSumit S Ghosh<br>Maithon Power Limited, Maithon Office, MA 5 Gogna,<br>Dist. Dhanbad, Jhankand State, PIN-828207                                                                          |
| General Manager (OS), ER-II<br>Power Grid Corporation of India Ltd.,<br>J-I-15, Block-EP, Sector-V,Salt Lake,Kolkata-91                                             | Head –Regulatory and contracts, IndiGrid Limited<br>, 247 Embassy, Office No 107, ‘B’ Wing, Hindustan Co.<br>Bus Stop, Gandhi Nagar, L.B.S. Road, Vikhroli West,<br>Mumbai – 400 079. Ph : +91 845509 96408 |
| General Manager (P&O), PTC Ltd.,<br>Kanchanjunga Bldg.,18, Barakhamba Road,<br>New Delhi-110001                                                                     |                                                                                                                                                                                                             |
| Managing Director, Bhutan Power Corporation<br>Post Box no. 580, Thimpu, Bhutan.                                                                                    | Managing Director, Druk Green Power Corprn.<br>P.O. Box-1351, Thimpu, Bhutan.                                                                                                                               |

|                                                                                                                                                                                 |                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Associate Director ( Commercial and Regulatory)<br>Darbhanga-Motihari Transmission Company Limited<br>(DMTCL),503,Windsor, Off CST Road, Kalina,<br>Santacruz(E), Mumbai-400098 | ShriBrajesh Kumar Pande, Plant Head, JITPL.<br>(FAX:011-26139256-65)                               |
| Shri D. P. Bhagava, Chief Consultant (O&M),<br>TeestaUrja Limited, New Delhi (FAX:011-<br>46529744)                                                                             | Director (GM Division), Central Electricity Authority<br>SewaBhawan, R. K. Puram, New Delhi-110066 |
| Director (NPC), CEA, NRPC Building,<br>KatwariaSarai, New Delhi- 110016                                                                                                         | President, Dans Energy Pvt. Ltd, 5th Floor, DLF<br>Building No. 8, Tower-C, Gurgaon - 722002       |
| Director, Shiga Energy Pw. Ltd., 5th Floor, DLF<br>Building No. 8, Tower-C, Gurgaon - 722002                                                                                    | DGM (E&I), HALDIA ENERGY LIMITED, BARIK<br>BHAWAN, KOKATA-700072, FAX: 033-22360955                |
| President , TPTL, BhikajiCama Place, New Delhi ,<br>110066                                                                                                                      |                                                                                                    |

# List of important transmission lines in ER which tripped in AUGUST-2021

| S.NO | LINE NAME                         | TRIP DATE  | TRIP TIME | Relay Indication LOCAL END                             | Relay Indication REMOTE END            | Reason    | Fault Clearance time in msec | Remarks                                                                                   | LOCAL END UTILITY | REMOTE END UTILITY | Utility to update | Utility Response |
|------|-----------------------------------|------------|-----------|--------------------------------------------------------|----------------------------------------|-----------|------------------------------|-------------------------------------------------------------------------------------------|-------------------|--------------------|-------------------|------------------|
| 1    | 220KV-TSTPP-MEERAMUNDALI-2        | 02-08-2021 | 12:18     | TSTPP: R-Earth, 4.7 kA, 35.9 KM                        |                                        | R-Earth   | 350                          | Tripped in Z II time from Meeramundali, Carrier signal not received                       | NTPC TSTPP        | OPTCL              | NTPC TSTPP        |                  |
| 2    | 400KV-SUBHASHGRAM-HALDIA-2        | 03-08-2021 | 03:54     | Subhashgram: R_Y, Ir: 3.336 kA, Iy: 3.354 kA, 84.71 KM | Ir: 6.409 kA, Iy: 6.083 kA, 1.93 KM    | R-Y-Earth | <100                         |                                                                                           | CESC              | PG ER-II           |                   |                  |
| 3    | 400KV-ALIPURDUAR-BINAGURI-1       | 04-08-2021 | 05:14     | -                                                      | N, 81.19Km, 2.6kA                      | Y-Earth   | <100                         | AR attempt failed                                                                         | PG ER-II          | PG ER-II           |                   |                  |
| 4    | 220KV-DARBHANGA (DMTCL)-MOTIPUR-2 | 04-08-2021 | 05:56     | -                                                      | Motipur: B-Earth, 2.934 kA, 33 km      | B-Earth   | <100                         | Single phase tripping during AR failure                                                   | DMTCL             | BSPTCL             | Both utilities    |                  |
| 5    | 220KV-SITAMARHI-MOTIPUR-1         | 04-08-2021 | 11:52     | Sitamarhi: B-Earth, 29 KM, 3.55 kA                     | CB got stuck, LBB operated             | B-Earth   | 500                          | Z II started and carrier received but breaker didn't opened hence LBB operated at Motipur | PMTL              | BSPTCL             |                   |                  |
| 6    | 220KV-SITAMARHI-MOTIPUR-2         | 04-08-2021 | 11:52     | Sitamarhi: B-Earth, Z III, 88 KM, 2.19 kA              | Motipur: B-Earth, Z I, 2.21 kA         | B-Earth   | 500                          | Tripped in Z II time.                                                                     | PMTL              | BSPTCL             |                   |                  |
| 7    | 220KV-RANCHI-CHANDIL-1            | 05-08-2021 | 09:11     | Ranchi: B-Earth, 64.39 km, 2.55 kA                     | Earth, 18.5 KM, 3.4 kA, A/R successful | B-Earth   | 400                          | Carrier signal not sent from Chandil                                                      | PG ER-I           | JUSNL              | Chandil           |                  |

|    |                              |            |       |                                                                               |                                              |           |      |                                                                                                                                           |            |            |                                     |  |
|----|------------------------------|------------|-------|-------------------------------------------------------------------------------|----------------------------------------------|-----------|------|-------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|-------------------------------------|--|
| 8  | 400KV-ALIPURDUAR-BINAGURI-3  | 05-08-2021 | 10:02 | Alipurduar: B-Earth, 38.4 km, 2.8 kA, A/r successful. Tripped in reclaim time | Binaguri: B-Earth, 101.3 km, 1.507 kA, A/r   | B-Earth   | <100 | Tripped in reclaim time                                                                                                                   | PG ER-II   | PG ER-II   |                                     |  |
| 9  | 400KV-MALDA-NEW PURNEA-1     | 06-08-2021 | 05:52 | Malda: B-Earth, 49.39 km, 7.28 kA                                             | New Purnea: B-Earth, 80.6 km, 3.9 kA         | B-Earth   | <100 | Tie Cb A/r attempted after failure of main CB A/r                                                                                         | PG ER-II   | PG ER-I    |                                     |  |
| 10 | 220KV-TENUGHAT-BIHARSHARIF-1 | 06-08-2021 | 11:51 | Tenughat: R-Earth, 129.6 km, 1.23 kA                                          | Biharsharif: R-Earth, Z I, 2.54 kA, 54.88 KM | R-Earth   | <100 | Three phase tripping for single phase fault                                                                                               | JUSNL      | BSPTCL     | Both utilities                      |  |
| 11 | 220KV-PATNA-SIPARA-2         | 06-08-2021 | 14:50 | Patna: Y_ph differential operated                                             |                                              | Y-Earth   | <100 |                                                                                                                                           | PG ER-I    | BSPTCL     |                                     |  |
| 12 | 400KV-BAHARAMPUR-BHERAMARA-3 | 07-08-2021 | 09:25 | DT received at Baharampur                                                     |                                              | No Fault  | NA   | Tripped while availing shutdown of main bay of the line at Bheramara                                                                      | PG ER-II   | Bangladesh |                                     |  |
| 13 | 220KV-TSTPP-MEERAMUNDALI-1   | 07-08-2021 | 09:36 | Y_B-Earth                                                                     |                                              | Y_B-Earth | 500  | Fault was in 220 KV Meeramundali-BSL. Both lines tripped in Z II from TSTPP sensing same fault as fault was not cleared from Meeramundali | NTPC TSTPP | OPTCL      | Line voltage appearing at both ends |  |
| 14 | 220KV-TSTPP-MEERAMUNDALI-2   | 07-08-2021 | 09:36 | Tripped from TSTPP end only                                                   |                                              | Y-B-Earth | 500  |                                                                                                                                           | NTPC TSTPP | OPTCL      |                                     |  |
| 15 | 220KV-BIRPARA-CHUKHA-1       | 07-08-2021 | 19:39 | Chukha: B-Earth, 70.2 km                                                      | Birpara: B-Earth, 59 km, 4.52 kA             | B-Earth   | <100 | Single phase fault, within 500 msec fault occurred in another phase                                                                       | PG ER-II   | Bhutan     |                                     |  |

|    |                                      |            |       |                                                              |                                                |                  |      |                                                                 |          |           |  |  |
|----|--------------------------------------|------------|-------|--------------------------------------------------------------|------------------------------------------------|------------------|------|-----------------------------------------------------------------|----------|-----------|--|--|
| 16 | 400KV-GMR-ANGUL-2                    | 09-08-2021 | 10:28 |                                                              | Angul: B-Earth, 6.4 km, 14.7 kA                | B-Earth          | <100 | Tripped in reclaim time;                                        | GMRKEL   | PG ER-III |  |  |
| 17 | 220KV-NEW MELLI-JORETHANG-1          | 10-08-2021 | 10:17 | New Melli: B-Earth, 10.07 km, 1.98 kA                        | Jorethang: B-Earth, 15.4 km                    | B-Earth          | 600  | High resistive phase to phase fault                             | PG ER-II | DANS      |  |  |
| 18 | 400KV-RAJARHAT-JEERAT-1              | 10-08-2021 | 18:26 | Jeerat: B_ph broken conductor                                |                                                | Broken Conductor | NA   | No fault observed in PMU                                        | PG ER-II | WBSETCL   |  |  |
| 19 | 220KV-CHANDIL-RANCHI-1               | 10-08-2021 | 20:02 | Chandil: R_B, 82.6 km, Ir: 2.43 kA, Ib: 2.55 kA              | Ranchi: R_B, 18.02 km, Ir: 8.5 kA, Ib: 8.57 kA | R_B-Earth        | 500  | Carrier signal not sent from Ranchi                             | PG ER-I  | JUSNL     |  |  |
| 20 | 220KV-MAITHON-DUMKA-1                | 10-08-2021 | 22:21 | Maithon: R-Earth, Z I, 40 KM, 3.927 kA                       | Dumka: R-Earth, 28.08 KM, 1.89 kA              | R-Earth          | <100 | A/r not in servivce. Three phase tripping due to unhealthy PLCC | PG ER-II | JUSNL     |  |  |
| 21 | 400KV-ALIPURDUAR-BINAGURI-2          | 11-08-2021 | 00:57 | Alipurduar: R_B, 21.2 KM, Ir: 25.69 kA, Ib: 21.2 kA, 21.2 km | Binaguri: R_B, Ir: 2.98 kA, Ib: 2.916          | R_B-Earth        | <100 |                                                                 | PG ER-II | PG ER-II  |  |  |
| 22 | 400KV-DSTPS(ANDAL)-RAGHUNATHPUR-1    | 11-08-2021 | 11:24 | DSTPS: B-Earth, Z I, 18.79 kA, 0.99 KM                       |                                                | B-Earth          | <100 | Y_B fault observed in PMU                                       | DVC      | DVC       |  |  |
| 23 | 400KV-NEW PURNEA-MUZAFFARPUR-1       | 11-08-2021 | 22:49 | New Purnea: Y-Earth, 135.2 km, 3.3 kA                        | Muzaffarpur: Y-Earth, 139.6 km, 3.3 kA         | Y-Earth          | <100 | Three phase tripping for single phase fault                     | PG ER-I  | PG ER-I   |  |  |
| 24 | 400KV-NEW PURNEA-MALDA-2             | 12-08-2021 | 01:06 | New Purnea: R-Earth, 106 km, 3.03 kA                         | Earth, 4.166 km, 14.06 kA                      | R-Earth          | <100 | A/r attempt failed                                              | PG ER-I  | PG ER-II  |  |  |
| 25 | 220KV-DARBHANGA (DMTCL)-MOTIPUR-2    | 12-08-2021 | 13:56 | Darbhangha: R-Earth, 31.44 km, 3.933 kA                      | Didn't trip                                    | R-Earth          | <100 |                                                                 | DMTCL    | BSPTCL    |  |  |
| 26 | 220KV-DARBHANGA (DMTCL)-SAMASTIPUR-1 | 12-08-2021 | 22:14 | Darbhangha: R-Earth, 7.6 km, 10 kA                           | Samastipur: R-Earth, 30 km, 3.3 kA             | R-Earth          | <100 |                                                                 | DMTCL    | BSPTCL    |  |  |

|    |                                   |            |       |                                                    |                                            |           |      |                                                                   |           |         |  |  |
|----|-----------------------------------|------------|-------|----------------------------------------------------|--------------------------------------------|-----------|------|-------------------------------------------------------------------|-----------|---------|--|--|
| 27 | 400KV-BARIPADA-KHARAGPUR-1        | 13-08-2021 | 11:56 | Baripada: R-Earth, 75.05 km, 3.3 kA                | Kharagpur: R-Earth, 22.42 km, 7.39 kA      | R-Earth   | <100 | Tripped in reclaim time                                           | PG ER-III | WBSETCL |  |  |
| 28 | 220KV-DARBHANGA (DMTCL)-MOTIPUR-2 | 14-08-2021 | 12:23 | Darbhanga: Y_B, Iy: 3.29 kA, Ib: 3.21 kA, 62.1 km  | Motipur: Y_B, Iy=Ib: 4.24 kA, 44.38 km     | Y_B-Earth | <100 |                                                                   | DMTCL     | BSPTCL  |  |  |
| 29 | 220KV-BUDHIPADAR-KORBA-1          | 14-08-2021 | 13:12 | Budhipadar: B-Earth, 108.1 km, 1.44 kA             | Korba: B-Earth, Z II, 60 KN, 2.039 kA      | B-Earth   | 200  | Three phase tripping for single phase fault                       | OPTCL     | WR      |  |  |
| 30 | 220-KV-NEW PURNEA-MADHEPURA-1     | 14-08-2021 | 14:38 | New Purnea: B-Earth, Z I, 12.8 km, 3.75 kA         | Madhepura; B-Earth, Z I, 71.8 km, 1.78 kA  | B-Earth   | <100 | A/r not operated at New Purnea                                    | PG ER-I   | BSPTCL  |  |  |
| 31 | 220KV-BUDHIPADAR-RAIGARH-1        | 14-08-2021 | 21:02 | Budhipadar: R-Earth, Z I, 65 km, 2.55 kA           |                                            | R-Earth   | <100 |                                                                   | OPTCL     | WR      |  |  |
| 32 | 220KV BARIPADA-BALASORE-1         | 15-08-2021 | 05:41 | Baripada: B-Earth, 28.39 km, 2.71 kA               |                                            | Y-B-Earth | <100 | Initially Y_ph fault in the line, later B_ph fault also appeared. | PG ER-III | OPTCL   |  |  |
| 33 | 220KV KHAGARIA-NEW PURNEA-2       | 15-08-2021 | 09:35 |                                                    | New Purnea: B-Earth, 7.2 km, 9.36 kA       | B-Earth   | <100 |                                                                   | BSPTCL    | PG ER-I |  |  |
| 34 | 220KV-MAITHON-DUMKA-2             | 15-08-2021 | 10:12 | Maithon - B-Earth , FD - 54.909 KM , FC - 2.471 KA | DUMKA - B-Earth , FD - 4 KM , FC - 1.27 KA | B-Earth   | 350  | Three phase tripping for single phase fault                       | PG ER-II  | JUSNL   |  |  |

|    |                               |            |       |                                                 |                                                 |          |      |                                                                                                               |          |           |  |  |
|----|-------------------------------|------------|-------|-------------------------------------------------|-------------------------------------------------|----------|------|---------------------------------------------------------------------------------------------------------------|----------|-----------|--|--|
| 35 | 220KV-JODA-RAMCHANDRAPUR-1    | 15-08-2021 | 11:53 | Joda: R-Earth, 58.82 km, 1.67 kA                | Ramchandra pur: R-Earth, 1.65 kA                | R-Earth  | 100  | A/r not in service. Other two phase tripped in 500 msec from Ramchandrapur end                                | OPTCL    | JUSNL     |  |  |
| 36 | 400KV ARAMBAGH-BAKRESWAR-1    | 15-08-2021 | 12:14 | ARAMBAGH: R-Earth, Z-1, FD-81 KM, FC-4.42 KA    | BAKRESWAR: R-Earth, FD-18 KM                    | R-Earth  | <100 | Tripped in reclaim time                                                                                       | WBSETCL  | WBSETCL   |  |  |
| 37 | 220KV TENUGHAT-BIHARSHARIF    | 15-08-2021 | 13:12 | TENUGHAT: R-Earth, Z-1, FD-100.2 KM, FC 1.07 KA | BIHARSARI FF: R-Earth, 84.3 KM, 1.628 kA        | R-Earth  | 200  | Three phase tripping. A/r not in service                                                                      | TVNL     | BSPTCL    |  |  |
| 38 | 400KV ARAMBAGH-BAKRESWAR-1    | 15-08-2021 | 13:23 | Arambag: R-Earth, 81.8 KM, 4.285 kA             | Bakreshwar: R-Earth, 53 KM, 3.95 kA             | R-Earth  | <100 | A/r attempt failed                                                                                            | WBSETCL  | WBSETCL   |  |  |
| 39 | 220KV KATAPALLI-BOLANGIR-1    | 16-08-2021 | 02:02 |                                                 | Bolangir: B-Earth, 72.3 km, 1.76 kA             | B-Earth  | <100 | Three phase tripping from both ends for single phase fault, three phase A/r from Katapalli; No AR at Bolangir | OPTCL    | PG ER-III |  |  |
| 40 | 220KV-BUDHIPADAR-KORBA-1      | 16-08-2021 | 13:02 | Budhipadar-R-N, Z I, FD-52.6km FC-2.93kA        |                                                 | R-Earth  | <100 | Three phase tripping for single phase fault at Budhipadar                                                     | OPTCL    | WR        |  |  |
| 41 | 400KV-MEDINIPUR-KHARAGPUR-1   | 18-08-2021 | 14:01 | Medinipur-B-Earth, Z I, 61.1 km, 3.893 kA       | Kharagpur: B-Earth, 46.5 km, 5.5 kA, A/r failed | B-Earth  | <100 | A/r attempt failed                                                                                            | PMJTL    | WBSETCL   |  |  |
| 42 | 220KV-MAITHON-KALYANESHWARI-1 | 20-08-2021 | 13:13 | Didn't trip                                     | Tripped during panel shifting at Kalyaneshwari  | No Fault | NA   | No fault observed in PMU                                                                                      | PG ER-II | DVC       |  |  |

|    |                                  |            |       |                                                     |                                       |         |      |                                                                                                                                                              |             |           |  |  |
|----|----------------------------------|------------|-------|-----------------------------------------------------|---------------------------------------|---------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------|--|--|
| 43 | 220KV-NEW PURNEA-MADHEPURA-1     | 22-08-2021 | 11:59 | New Purnea: B-Earth, 1.795 KM, 20.504 kA            |                                       | B-Earth | <100 | Three phase tripping for single phase fault from New Purnea                                                                                                  | PG ER-I     | BSPTCL    |  |  |
| 44 | 220KV-BUDHIPADAR-KORBA-2         | 23-08-2021 | 02:54 | Budhipadar: B-Earth, 191.3 km, 1.79 kA              |                                       | B-Earth | <100 |                                                                                                                                                              | OPTCL       | WR        |  |  |
| 45 | 400KV-KHSTPP-BARH-2              | 23-08-2021 | 03:07 | Tripped on O/V at KHSTPP                            |                                       | O/V     | NA   | Successful A/r observed in 400 KV KHSTPP-Banka II at the same time                                                                                           | NTPC KHSTPP | NTPC Barh |  |  |
| 46 | 400KV-BARIPADA-KHARAGPUR-1       | 24-08-2021 | 11:17 | Baripada: Y-Earth, Z II, 77.2 km, 3.07 kA           | Kharagpur: Y-Earth, 16.27 km, 8.47 kA | Y-Earth | <100 | A/r failed at Baripada but other two phase CB didn't open, later two phase opened on PD                                                                      | PG ER-III   | WBSETCL   |  |  |
| 47 | 400KV-MERAMUNDALI-LAPANGA-2      | 24-08-2021 | 13:18 | Meramundali: B-Earth, 136.1 km, 2.85 kA, A/r failed | Lapanga: B-Earth, 70.8 km, 3.06 kA    | B-Earth | <100 | A/r failed at Meramundali. Tie CB at Lapanga took AR attempt after failed attempt of main CB                                                                 | OPTCL       | OPTCL     |  |  |
| 48 | 220KV-DARBHANGA(DMTCL)-LAUKAHI-2 | 24-08-2021 | 15:57 | Darbhangha: B-Earth, 53.11 km, 1.281 kA             | Laukahi: B-Earth, 42.18 km, 0.909 kA  | B-Earth | 160  | initially DEF started then fault sensed in z-1 by Distance Protection but A/r lockout triggered for single phase fault and all three phase opened at Laukahi | DMTCL       | BSPTCL    |  |  |

|    |                                         |            |       |                                                              |                                                                |          |      |                                                                                                                                                                                     |               |                |  |  |
|----|-----------------------------------------|------------|-------|--------------------------------------------------------------|----------------------------------------------------------------|----------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|--|--|
| 49 | 400 KV DSTPS (ANDAL)-<br>RAGHUNATHPUR-1 | 24-08-2021 | 12:21 | DSTPS: B-Earth, Z I, 55.71<br>km, 6.04 kA                    | Raghunathpur: B-Earth,<br>6.74 km,<br>15.601 kA                | B-Earth  | <100 | Line tripped in<br>reclaim time                                                                                                                                                     | DVC           | DVC            |  |  |
| 50 | 220KV-BEGUSARAI-NEW<br>PURNEA-1         | 24-08-2021 | 17:26 | Begusarai: B-Earth, 218 km,<br>0.4 kA                        | New Purnea:<br>B-Earth, 15.6<br>km, 7.06 kA                    | B-Earth  | <100 | Faulty phase tripped<br>immediately and<br>Rest 2 unfaulted<br>phase also tripped<br>after 400 ms ,at<br>Purnea end reason<br>may be checked<br>,seems PD time<br>delya 400ms only. | BSPTCL        | PG ER-I        |  |  |
| 51 | 220KV DARBHANGA (DMTCL)-<br>LAUKAHI-2   | 25-08-2021 | 04:28 | Darbhangha: Y-Earth, Z I, 34<br>km                           | Laukahi: Y-<br>Earth, 44.34<br>km, 2.097<br>kA                 | Y-Earth  |      | DR of another event<br>uploaded by<br>Laukahi                                                                                                                                       | DMTCL         | BSPTCL         |  |  |
| 52 | 400KV JHARSUGUDA-RAIGARH-<br>1          | 25-08-2021 | 12:19 | Jharsuguda: Y-Earth, Z I, 80<br>km, 3.8 kA                   |                                                                | Y-Earth  | <100 | A/r failed,<br>discrepancy in A/r<br>dead time of two<br>ends                                                                                                                       | PG ER-III     | WR             |  |  |
| 53 | 220KV PATNA-FATUHA-1                    | 25-08-2021 | 13:36 | Patna: R_Y_B, 23.6 km ,Ir:<br>7.6 kA, Iy: 8.2 kA, Ib: 7.3 kA | Patna:<br>Y_ph CT of<br>220 KV<br>Biharsharif-<br>Fatuha burst | R_Y_B    | 500  | Y_ph fault eveloved<br>to three phase fault                                                                                                                                         | PG ER-I       | BSPTCL         |  |  |
| 54 | 220KV SUBHASHGRAM-EMSS<br>(CESC)-2      | 25-08-2021 | 17:14 | Subhashgram: R_Y, 24.8 km,<br>Ir: 6 kA, Iy: 4.8 kA           |                                                                | R_Y      | 350  |                                                                                                                                                                                     | PG ER-II      | WBSETCL        |  |  |
| 55 | 220KV PATNA-FATUHA-1                    | 25-08-2021 | 16:42 |                                                              | Auxiliary<br>Contact short<br>circuit at<br>Fatuha             | No Fault | NA   |                                                                                                                                                                                     | PG ER-I       | BSPTCL         |  |  |
| 56 | 400KV FSTPP-KHSTPP-3                    | 26-08-2021 | 09:58 | Only Main bay tripped                                        | DT received                                                    | No Fault | NA   |                                                                                                                                                                                     | NTPC<br>FSTPP | NTPC<br>KHSTPP |  |  |
| 57 | 400KV PPSP-BIDHANNAGAR-2                | 26-08-2021 | 14:49 | R-Earth, 28.8 km                                             | R-Earth,<br>168.8 km,<br>2.14 kA                               | R-Earth  | <100 |                                                                                                                                                                                     | WBSETC<br>L   | WBSETCL        |  |  |
| 58 | 400KV FSTPP-KHSTPP-3                    | 27-08-2021 | 00:39 | Didn't trip                                                  | DT received                                                    | No Fault | NA   |                                                                                                                                                                                     | NTPC<br>FSTPP | NTPC<br>KHSTPP |  |  |
| 59 | 400KV FSTPP-KHSTPP-3                    | 27-08-2021 | 03:59 | Didn't trip                                                  | DT received                                                    | No Fault | NA   |                                                                                                                                                                                     | NTPC<br>FSTPP | NTPC<br>KHSTPP |  |  |

|    |                                    |            |       |                                               |                                      |          |      |                                                                                                                                                                               |            |             |  |  |
|----|------------------------------------|------------|-------|-----------------------------------------------|--------------------------------------|----------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|--|--|
| 60 | 220KV NEW PURNEA-MADHEPURA-1       | 27-08-2021 | 05:37 | New Purnea: B-Earth, 3.81 kA, 54.9 km         | Madhepura: B-Earth, 3.23 kA, 32.5 km | Y-Earth  | <100 | A/r failed from New Purnea while A/r was successful from Madhepura. Jumper snapping reported                                                                                  | PG ER-I    | BSPTCL      |  |  |
| 61 | 400KV FSTPP-KHSTPP-3               | 27-08-2021 | 05:52 | Didn't trip                                   | DT received                          | No Fault | NA   |                                                                                                                                                                               | NTPC FSTPP | NTPC KHSTPP |  |  |
| 62 | 220KV TTPS-TSTPP-1                 | 27-08-2021 | 12:11 | TTPS: R-Earth, 3.6 km, 12 kA                  | TSTPP: R-Earth, Z II, 25 km, 5.46 kA | R-Earth  | <100 |                                                                                                                                                                               | OPTCL      | NTPC TSTPP  |  |  |
| 63 | 400KV JEERAT-BAKRESWAR-1           | 27-08-2021 | 13:12 | Jeerat: B-Earth, 90.6 km, 3.5 kA              | Bakreshwar: B-Earth                  | B-Earth  | <100 | Fault in reclaim time.                                                                                                                                                        | WBSETCL    | WBSETCL     |  |  |
| 64 | 400KV NEW PPSP-ARAMBAGH-1          | 27-08-2021 | 13:37 | New PPSP: R-Earth, 160 km, 2.3 kA             | Arambagh: R-Earth, 15 kA, 1.6 km     | R-Earth  | <100 |                                                                                                                                                                               | WBSETCL    | WBSETCL     |  |  |
| 65 | 220KV JORETHANG-NEW MELLI-1        | 30-08-2021 | 11:43 | New Melli: B-Earth, 10.07 km, 1.894 kA        |                                      | B-Earth  | <100 | Fault in zone-2 from Jorethang ,Carrier received but No A/r and 3 phase tripping occurred , evolving fault.Same time unit 1 also tripped on Loss of field ,AVR may be checked | DANS       | PG ER-II    |  |  |
| 66 | 220 KV DARBHANGA (DMTCL)-MOTIPUR-1 | 30-08-2021 | 13:01 | Darbhangha: B-Earth, Z II, 1.293 kA, 90.79 km | Didn't trip                          | B-Earth  | <100 | A/R successful from Motipur end ,why tripped from Darbhanga end.                                                                                                              | DMTCL      | BSPTCL      |  |  |
| 67 | 220 KV DARBHANGA (DMTCL)-LAUKAHI-2 | 31-08-2021 | 08:20 | DT received                                   | Didn't trip                          | No Fault | NA   |                                                                                                                                                                               | DMTCL      | BSPTCL      |  |  |

|    |                             |            |       |                                     |                                      |         |      |                                                                                                                                                                                |        |          |  |  |
|----|-----------------------------|------------|-------|-------------------------------------|--------------------------------------|---------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|--|--|
| 68 | 220KV JORETHANG-NEW MELLI-2 | 31-08-2021 | 10:50 | Jorethang: B-Earth, 6.5 km, 1.29 kA | New Melli: B-Earth, 9.12 km, 2.08 kA | B-Earth | 500  | Fault in zone-2 from Jorethang ,Carrier received but No A/r and 3 phase tripping occurred , eveolving fault.Same time unit 1 also tripped on Loss of field ,AVR may be checked | DANS   | PG ER-II |  |  |
| 69 | 220KV CHUKHA-BIRPARA-2      | 31-08-2021 | 12:40 |                                     | Birpara: B-Earth, 39.23 km, 2.722 kA | B-Earth | <100 |                                                                                                                                                                                | Bhutan | PG ER-II |  |  |