



सत्यमेव जयते

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/ 13

DATE: 05.04.2021

To,

As per list enclosed,

Sub: Notice for 101st Protection Coordination sub-Committee (PCC) meeting of ERPC

Sir,

Notice is hereby given that **101st PCC meeting** of ERPC will be held on **13.04.2021(Tuesday)** from **10:30hrs** 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: satyam24365@gmail.com

The tentative agenda items for discussion will be as follows:

- 1) Confirmation of the minutes of 100th Protection sub-Committee Meeting of ERPC.
- 2) Analysis of following grid disturbances of March 2021:

Sr. No	GD/ GI	Date	Time	Affected System	Summary	Load loss (MW)	Gen loss (MW)
1	GD-1	09-03-2021	08:02	JSPL	At 07:50:45:808 hrs, 400 kV JSPL – Meramundali - 2 got tripped after unsuccessful auto-reclose attempt due to persistent Y phase to earth fault. At 08:02:27:939 hrs, 400 kV JSPL – Meramundali – 1 got tripped after unsuccessful auto-reclose attempt due to persistent Y phase to earth fault resulting in total power failure at JSPL plant. During line patrolling, it was observed that “Y” Phase Insulators of both the circuits were damaged and conductors were lying on top of Blue Phase cross arms at tower location at 111.	333	373
2	GD-1	10-03-2021	19:35	Rangpo, Dikchu HEP, Teesta III HEP,	At 10th March 2021 at 19:35 Hrs both the 400 kV Rangpo- Kishangunj S/C and 400k V Teesta III- Kishangunj S/C tripped due to R and B phase to earth fault resulted in islanding operation of 1560	54	1560

				Teesta V HEP, Jorethang HEP, New Melli, Tashiding HEP, Chujachen HEP, Gangtok	MW generation at Sikkim hydro complex with 54 MW load at Gangtok. Consequently all the generators tripped and total power failure occurred.		
3	GD-1	22-03-2021	11:05	JUSNL	220 kV Godda - Dumka D/C were not in service. On 22-03-2021 at 11:05 hrs 220 kV Farakka - Lalmatia S/C and 132 kV KhSTPP - Lalmatia S/C tripped resulting in total power failure at Lalmatia and Godda S/S.	45	0
4	GD-1	23-03-2021	16:18	BSPTCL	400 kV Barh - Motihari - 2 was under shutdown. 400/132 kV Motihari S/S is connected to rest of the grid via 400 kV Gorakhpur - Motihari - 2. On 23-03-2021 at 16:18 hrs 400 kV Gorakhpur - Motihari - 2 tripped from Motihari end due to Overvoltage at Motihari end. Due to outage of radial infeed source, load of 132 kV Motihari, Betiah, Raxaul got interrupted.. Power supply to Nepal (Surajpura & Ramnagar) also got interrupted.	300	0

3) Single line tripping incidences of transmission lines for month of March 2021 is 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 trippings well in advance for meaningful analysis during the meeting. 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.

Your participation in the meeting is highly solicited.

Yours faithfully,


05/04/2021
(D. K. Bauri)

Superintending Engineer(O& PS)

LIST OF ADDRESSES:

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

General Manager (P&O), PTC Ltd., Kanchanjunga Bldg., 18, Barakhamba Road, New Delhi-110001	
Managing Director, Bhutan Power Corporation Post Box no. 580, Thimpu, Bhutan.	Managing Director, Druk Green Power Corprn. P.O. Box-1351, Thimpu, Bhutan.
Associate Director (Commercial and Regulatory) Darbhanga-Motihari Transmission Company Limited (DMTCL), 503, Windsor, Off CST Road, Kalina, Santacruz(E), Mumbai-400098	ShriBrajesh Kumar Pande, Plant Head, JITPL. (FAX:011-26139256-65)
Shri D. P. Bhagava, Chief Consultant (O&M), TeestaUrja Limited, New Delhi (FAX:011- 46529744)	Director (GM Division), Central Electricity Authority SewaBhawan, R. K. Puram, New Delhi-110066
Director (NPC), CEA, NRPC Building, KatwariaSarai, New Delhi- 110016	President, Dans Energy Pvt. Ltd, 5th Floor, DLF Building No. 8, Tower-C, Gurgaon - 722002
Director, Shiga Energy Pw. Ltd., 5th Floor, DLF Building No. 8, Tower-C, Gurgaon - 722002	DGM (E&I), HALDIA ENERGY LIMITED, BARIK BHAWAN, KOKATA-700072, FAX: 033-22360955
President , TPTL, Bhikaji Cama Place, New Delhi , 110066	

List of important transmission lines in ER which tripped in MARCH-2021

S.NO	LINE NAME	TRIP DATE	TRIP TIME	Relay Indication LOCAL END	Relay Indication REMOTE END	Reason	Fault Clearance time in msec	Remarks	DR CO NFIGU RATIO	DR/EL RECEIVED FROM LOCAL END	DR/EL RECEIVED FROM REMOTE END
1	400KV-DSTPS(ANDAL)-RAGHUNATHPUR-1	03-01-2021	11:34	RTPS: Y-n, z1, 7.157 kA, 56.29 km		Y-Earth	<100	At the time of A/R only 3 phase MCB opened and TCB opened after 2 seconds when next fault		YES	YES
2	400KV-DURGAPUR-JAMSHEDPUR-1	03-01-2021	13:16	Durgapur: R-B, 53.2 Km, Ir-7.38 kA, Ib-9.32 kA	Jamshedpur: R-B, Z-I, 136.8 Km, Ir-3.68 kA, Ib-4.14 kA;	R-B	<100			YES	YES
3	400KV-PPSP-BIDHANNAGAR-2	03-01-2021	15:16	PPSP: R Ph, Z-I, 106.4 Km	Bidhannagar: R ph,Z-I,34.94km,6.185 kA,	R-Earth	<100	No A/R at PPPSP end .		NO	NO
4	220KV-PARULIA-PARULIA(PG)-2	03-01-2021	13:42	LBB operated at DVC end		No Fault	NA	No fault observed in PMU.		NO	NO
5	220KV-PARULIA-PARULIA(PG)-1	03-01-2021	13:42	LBB operated at DVC end		No Fault	NA	No fault observed in PMU.		NO	NO
6	220KV-KHAGARIA-NEW PURNEA-2	03-01-2021	14:11	GSS KHAGARIA (NEW) end:B-Phase, Z-1 ,Fault location : 44.26km, Ic: 1.322kA		B-Earth	<100	No A\R from khagaria end , all 3 phase breker opened from khagaria end at the instant of fault .	Insufficient DR Time frame	YES	YES
7	400KV-NEW PPSP-ARAMBAGH-1	03-01-2021	12:18	RI at New PPSP: Z-I, B Ph 65.7 km, 2.99 kA	RI at Arambag: Z-I, B Ph, 130.6 km, 2.41 kA;	B-Earth	<100	A/r unsuccessful.		NO	NO
8	400KV-LAPANGA-OPGC (IB THERMAL)-1	03-02-2021	19:59	Lapanga- Did not trip	OPGC-86B trip relay operated	No Fault	NA			YES	NO
9	400KV-ALIPURDUAR (PG)-BONGAIGAON-1	03-05-2021	20:13	R-N 2.86 KA,Z2 AT APD		R-Earth	1500	High resistive fault cleared after 1.5 seconds .		YES	NO
10	400KV-KOLAGHAT-NEW CHANDITALA-1	03-05-2021	17:05	KTPP end: No relay indication found	New Chanditala end: Direct trip received, 86tripp	No Fault	NA			YES	NO

11	220KV-JAMSHEDPUR-JINDAL-1	03-05-2021	13:10	Jamshedpur end dist prot operated, Y ph , Z1, fault distance=20.788 Km, Fault %=15.40%, Fault current=2163.51 A,	back up earth fault at jindal end	Y-Earth	<100			NO	NO
12	220KV-DEHRI-GAYA-2	03-05-2021	12:45	Zone-1 distance at 67.03KM Ic-1.478KA at dehri end	B-N 27.5 km 4.56 kA z1 a/r successful	B-Earth	<100	A/r successful from Gaya end .		YES	YES
13	400KV-BARIPADA-PANDIABILI-1	03-05-2021	05:00	PANDIABILI -B-N , FD- 113.9 KM , FC- 2.96 KA ,	BARIPADA - B-G , FD- 121.4 KM , FC - 2.56 KA	B-Earth	<100		MCB &TC B status showing wrong in DP	YES	NO
14	400KV-BARIPADA(PG)-NEW DUBURI-1	03-05-2021	06:04	Baripada: R_N, 2.33 kA, 138.5 KM	New Duburi: R_N, 7.45 kA, 25.9 KM	R-Earth	<100	Prior to tripping 4 time auto recloser took place at same distance		YES	YES
15	220KV-JSPL-JAMSHEDPUR(DVC)-1	03-06-2021	14:48	JSPL: B-N, 1KA (TRIPPED FROM JSPL END ONLY)		B-Earth	<100			NO	NO
16	220KV-CHUKHA-BIRPARA-1	03-06-2021	13:37	CHUKHA: Z1,R-B, 7KM, IR- 5.3KA, IB-5.3KA	BIRPARA: R-B,FD 64.54KM,IR 2.618KA,IB 2.868KA;	R-B	<100			NO	YES
17	400KV-RANCHI-ROURKELA-1	03-07-2021	07:03	, Ranchi-Z1 R-N FC-2.588kA FD- 105.8	Rourkela-Z1 R-N FC- 5.79kA FD-39.908km	R-Earth	<100			YES	YES
18	220KV-RENGALI(PH)-TSTPP-1	03-07-2021	12:32	Rengali PH-R-Y-Ph E/f	TSTPP-R-Ph, Z-2, 21KM, 5.9kA	R-Earth	500	Seems one end opened in z-1 and other in z-2		NO	NO
19	400KV-BARIPADA(PG)-NEW DUBURI-1	03-08-2021	04:35	Baripada: R-N, F.C: 2.42kA, F.D: 131.9KM	Duburi End: R-N, F.C: 7.49kA, F.D: 28.3KM.	R-Earth	<100	R phase fault initially then during dead time B phase fault observed and 3 phase tripping occurred .Prior to tripping the A/R of both the lines successfully operated for 3	TCB open status showing always	YES	YES

20	400KV-BARIPADA-PANDIABILI-2	03-08-2021	04:36	Baripada: B-N, F.C: 2.39kA, F.D: 139KM	Pandiabili: B-N, F.C: 3.05kA, F.D: 107.2kM	R-Earth	<100	Prior to tripping the A/R of both the lines successfully operated for 3 times. Seems some permanent fault	MCB &TC B status showing	YES	YES
21	400KV-GOKARNA-SAGARDIGHI-2	03-08-2021	17:39	Gokarna:Y_N, 12.6 KM, 12.14 kA	Sagardighi: Y_N, 22.07 KM, 11.27 kA	Y-Earth	<100			NO	NO
22	220KV-JODA-RAMCHANDRAPUR-1	03-08-2021	12:57	Joda: Y_N, 87.514 KM, 1.85 kA	Ramchandrapur: Y_N, 57.8 KM, 2.27 kA	Y-Earth	<100	A/R not observed and whether this line is having a/r scheme or not .Delayed clearance observed at Joda end as fault detected in zone 2, whether	DR not configured as per	YES	YES
23	400KV-MEDINIPUR-KHARAGPUR-1	03-08-2021	10:44	DT received at Medinipur		No Fault	NA			NO	NO
24	400KV-MEERAMUNDALI-JSPL-1	03-09-2021	08:02	Meramundali-Y-N, Ib-8.8 KA, 35.6 KM.		Y-Earth	500	From PMU/DR it seems A/R deadtime is low approx 400msec and also at the time of A/R delayed clearance of 400 ms observed in both line2 Whether SCFE	Breaking opening status	YES	YES
25	400KV-MEERAMUNDALI-JSPL-2	03-09-2021	07:50	Y-N fault, 10 KA fault current, 35.7 KM from Meeramundali end		Y-Earth	500	From PMU/DR it seems A/R deadtime is low approx 400msec and also at the time of A/R delayed clearance of 400 ms observed in both	Breaking opening status	YES	YES
26	400KV-KISHANGANJ-TEESTA-III-1	03-10-2021	19:35	Kishanganj: R-B fault, 121.Km, 4.9kA	Teesta-3: R-B fault, R- 2.186kA, B-1.118kA, 102Km	R-B	<100			YES	YES
27	400KV-KISHANGANJ(PG)-RANGPO-1	03-10-2021	19:35	Kishanganj: R-B Fault, Rph- 5.2KA, B-5.2KA, 117.4Km	Rangpo: B-N, 3.223kA, 82.657Km	R-B	<100			YES	YES
28	220KV-TENUGHAT-BIHARSARIFF-1	03-10-2021	19:05	Tripped from Biharsharif end only. LA burst in Baripahari S/s 132/33 KV ICT		No Fault	500	Tripped for downstam fault		NO	NO

29	220KV-KATAPALLI-BOLANGIR(PG)-1	03-10-2021	17:24	B_N, 0.8 kA, 87 KM (Bolangit). Tripped from Bolangir only		B-Earth	<100			YES	NO
30	220KV-TSTPP-MEERAMUNDALI-1	03-11-2021	19:52	Line CVT Fuse fail alarm			500	jumper snapped in line of meeramundali- Bhushan Steel caused transient effect and oscillation		NO	NO
31	220KV-TSTPP-MEERAMUNDALI-2	03-11-2021	19:52	Line CVT Fuse fail alarm			500	jumper snapped in line of meeramundali- Bhushan Steel caused transient effect and oscillation		NO	NO
32	400KV-RANCHI-RAGHUNATHPUR-3	03-11-2021	19:18	Ranchi-Z1 R-N FC-3.39kA FD- 103.8km	RTPS-Z R-N SOTF FC- 5.6kA FD-58km	R-Earth	<100	Ranchi end all 3 phase tripping at the instant of fault .While A/R successful from other end .		YES	YES
33	220KV-KATAPALLI-BOLANGIR(PG)-1	03-11-2021	02:39	BOLANGIR:- R-N FAULT 7.5KM 4.7KA CHARGED FROM KATAPALLO END		R-Earth	<100	Seems 3 phase auto reclose from Katapalli end		YES	NO
34	220KV-KATAPALLI-BOLANGIR(PG)-1	03-11-2021	00:55	bolangir end:- RN fault 7.424km 4.649ka charged from katapalli end		R-Earth	<100	Seems 3 phase auto reclose from Katapalli end		YES	NO
35	220KV-DARBHANGA (DMTCL)-MOTIPUR-2	03-12-2021	23:47	Carrier added tripping at Darbhanga			<100			NO	NO
36	220KV-CHANDIL-STPS(WBPDCL)-1	03-12-2021	18:32	CHANDIL: Z2, B-N, FC-1.43KA, 98KM	STPS:-Z 1, B-N, 8.8KA , 6.8 KM;	B-Earth	<100	3 PHASE TRIPPING AT stps END a/r LOCKOUT OCCURRED .At chandil end tripping in z-2 whether carrier communication scheme healthy or not?		YES	YES
37	400KV-MERAMUNDALI-LAPANGA-1	13/03/2021	08:52	KA,Z1,Dist.=76.6 KM Main-II:- Y-E,IY=7.87 KA,Z1,Dist.=32.8 KM	Lapanga end:- Y-E,IY=2.39 KA,Dist=156.6 KM	Y-Earth	<100	Earth Wire which slipped from its suspension clamp nearer to Y-PH conductor		YES	YES

38	400KV-ARAMBAGH-BAKRESWAR-1	13/03/2021	12:40	ARAMBAG: R-Y PHASE, ZONE1, CARRIER SENT, 0.9 KM, Ir= 13.925 kA ,Iy = 14.197 kA	BKTPP: R-Y, ZONE2, 128.6 KM,	R-Y	<100			NO	YES
39	400KV-MERAMUNDALI-LAPANGA-1	14/03/2022	13:38	Y-N fault, 2.9 KA, 124 Km from LAPANGA , SOTF Z1		Y-Earth	<100			NO	YES
40	400 KV GORAKHPUR-MOTIHARI -II	14/03/2022	11:47	At 11:30 hrs & 11:47 hrs 400 KV Gorakhpur Motihari-2 tripped while attempted antitheft charging from Gorakhpur end		B-Earth		High resistive fault cleared after 300 milli seconds .		YES	NO
41	400KV-KOLAGHAT-ARAMBAGH-1	15/03/2021	16:20	arambag dt receipt	kolaghat no relay b cb tripped	No Fault	NA	kolaghat was doing on off breaker test without due intimation to sldc,carrier was inadvertently not turned off during the test.Similar reason led to again tripping at 16:20		NO	NO
42	220KV-DALTONGUNJ-GARWAH (NEW)-1	15/03/2021	14:45	DT RECEIVED		No Fault	NA	Dt receipt at Daltonganj ,reason may be shared.		YES	NO
43	400KV-KOLAGHAT-ARAMBAGH-1	15/03/2021	16:08	arambag dt receipt kolaghat no relay		No Fault	NA	kolaghat was doing on off breaker test without due intimation to sldc,carrier was inadvertently not turned off during the test.Similar reason led to again tripping at 16:20		NO	NO
44	220KV-RENGALI(PG)-RENGALI(GRIDCO)-1	16/03/2021	16:02	220 KV bus I tripped		Y-Earth	<100	Clamp towards BUS side broke and the conductor fell on the ground from the defective CB NO. 202 (ICT # 2 Incomer Bay) which was under		YES	
45	400KV-KHARAGPUR-KOLAGHAT-1	17/03/2021	12:09	KGP-Z1, B-N,SOTF, FD- 33.40KM,FC- 5.815KA		B-Earth	<100			YES	YES

46	220KV-TENUGHAT-BIHARSARIFF-1	17/03/2021	14:10	Tenughat- Z1 Y-N FC-1.368kA FD-112.9km		Y-Earth	<100			NO	NO
47	400KV-KHARAGPUR-KOLAGHAT-1	17/03/2021	10:37	KTPP: SOTF, Fc= 6.04 kA, 29.11 km		B-Earth	<100			YES	YES
48	220KV-BUDHIPADAR-KORBA-1	18/03/2021	13:28	Budhipadar: B_N, 1.28 kA		B-Earth	700	Tripped on directional over current after 700 ms ,rising current observed nature of fault may be shared.		YES	NO
49	220KV-NEW PURNEA-MADHEPURA-1	18/03/2021	14:00	New Purnea: B_N, 79.6 KM, 2.35 kA	Madhepura: B-N, 7Km, 5.16kA	B-Earth	350	Zone -2 from purnea end and 3 phase tripping occurred ,as no carrier signal received.Seems A/R attempted from madhepura		YES	YES
50	220KV-JODA-RAMCHANDRAPUR-1	18/03/2021	12:39	JODA - OVERCURRENT FAULT - Y FC - 1.4 KA ,	RAMCHANDARPUR POWER SWING INDICATION	Y-Earth	700	From joda end tripped on directional over current and at rep end also tripped on directional earth fault.		YES	YES
51	220KV-CHANDIL-STPS(WBPDCL)-1	18/03/2021	04:57	IR=0.03 KA IY =1.53 KA, IB =0.04 KA DIST 94.3 Z2 FROM CHANDIL	Y-N Z1 7.98 Ka 11.16 kM FROM STPS	Y-Earth	350	3 PHASE TRIPPING AT stps END a/r LOCKOUT OCCURRED .At chandil end tripping in z-2 whether carrier		YES	YES
52	220KV-CHANDIL-STPS(WBPDCL)-1	20/03/2021	05:04	Chandil: R_N 1.52 kA, 96.3 KM	Santalalih: R_N, 6.99 kA, 11.04 KM	R-Earth	500	3 PHASE TRIPPING AT stps END a/r LOCKOUT OCCURRED .At chandil end tripping in z-2 whether carrier communication scheme		YES	YES
53	220KV-TENUGHAT-BIHARSARIFF-1	21/03/2021	11:46	R-Phase ,fault location:-125.5 km, Ia:- 1.182KA, fault resistance:- 49.74ohm. Fault in zone 1.from biharshariff.	5 KA 39.75 km z1 r-n from tenughat	R-Earth	<100			NO	NO
54	220KV-TENUGHAT-BIHARSARIFF-1	21/03/2021	11:06	biharsariff end:- R-N, z1, 127.1 km, Ia:- 1.146KA, Fault in zone 1.	from tenughat:R-N 2.267 kA,43.81 km z1	R-Earth	<100			NO	NO
55	220KV-FSTPP-LALMATIA-1	22/03/2021	11:05	FSTPP: Z1, Y-B, 85KM, IY-2.66KA, IB-2.6KA; TRIPPED FROM		Y-B	1000			NO	NO

56	220KV-MALDA(PG)-GAZOLE-1	22/03/2021	16:29	220KV Bus bar operated		No Fault	NA	At 16:29 hrs Bus Bar protection operated at 220KV Malda Bus-1 &2. No Fault signature at PMU. As gathered from ER-2 spurious Bus bar	YES	NO
57	220KV-MALDA(PG)-GAZOLE-2	22/03/2021	16:29	220KV Bus bar operated		No Fault	NA	At 16:29 hrs Bus Bar protection operated at 220KV Malda Bus-1 &2. No Fault signature at PMU. As gathered from ER-2 spurious Bus bar protection operated during final check-up	NO	NO
58	220KV-TENUGHAT-BIHARSARIFF-1	22/03/2021	09:44	TENUGHAT- Z1, R-N, 41KM, 2.24KA;	BIHARSARIFF: Z1, R-N, 1.67KA, 127KM	R-Earth	<100		NO	NO
59	220KV-CHANDIL-STPS(WBPDCL)-1	23/03/2021	05:34	, Chandil-Z2 RN FC-1.58ka FD-95.4	STPS-Zone - 1, R - phase, 12.81 KM, 6.548 KA	R-Earth	500	3 PHASE TRIPPING AT stps END a/r LOCKOUT OCCURRED .At chandil end tripping in z-2 whether carrier	NO	NO
60	220KV-NEW PURNEA-MADHEPURA-1	23/03/2021	12:40	MADHEPURA:-Y,B pickup z1 trip,IL1-0.18KA, IL2- 1.96KA,IL3- 2.13KA ,DIST-72.6KM		Y-B	<100	FIRE HAS BEEN OBSERVE AT THE FAULT LOCATION	YES	NO
61	400KV-GORAKHPUR-MOTIHARI-2	23/03/2021	16:18	Gorakhpur- DT received	Motihari- O/V Stg-1	O/V	NA		NO	NO
62	400KV-JAMSHEDPUR-CHAIBASA(PG)-1	23/03/2021	14:52	Jamshedpur:- 14.4km I=11.69ka Rn fault,	Chaibasa : - 46.4km ,I=2.73ka, Rn fault	R-Earth	<100		YES	YES
63	400KV-DSTPS(ANDAL)-RAGHUNATHPUR-1	23/03/2021	13:11	RTPS: Main 1P442: FAULT LOCATION: 53.58 km. Zone-1 , IB: 4.814 kA IC: 4.781 kA		Y-B	<100		YES	YES
64	400KV-DSTPS(ANDAL)-RAGHUNATHPUR-2	23/03/2021	13:11			No Fault	NA	The said line was tripped from DSTPS end only along with tripping of Ckt-1 as it was charged through Tie bay of Ckt-1. Main CB of 400 KV DSTPS-RTPS CKT#2 at DSTPS is not	NO	NO

65	220KV-RANGPO-NEW MELLI-1	24/03/2021	18:45	Rangpo: R-Y, Ir-10.99kA, Iy=11kA, 61Mtr		R-Y	1000	From New melli tripped in z-3 z-3 sensed from Rangpo end however not tripped,Kindly furnish details of tripping and		YES	YES
66	400KV-RANGPO-TEESTA-V-1	24/03/2021	14:39	Rangpo: R-B, Ir-2.75kA, Ib:2.72kA, 10.5Km	Teesta V: R-B, 4.5Km , IR 1.38 KA , IB - 1.43 KA	R-B	<100			YES	NO
67	220KV-BOLANGIR(PG)-BOLANGIR(GRIDCO)-2	25/03/2021	13:16	no tripping at PG end	DT received at Sadaipally...	No Fault	NA			YES	NO
68	400KV-JAMSHEDPUR-ANDAL-1	26/03/2021	12:25	JSR: B-N,1.95kA,162kM	Andal: Z1, B-N,3.466kA, 19.19Km	B-Earth	<100			NO	NO
69	400KV-TSTPP-ROURKELA-1	27/03/2021	11:37	Talcher: Z-I, B-N, 70.18 km,	Rourkela-Z1 B-N FC-3.376kA FD-103.31km	B-Earth	<100	A/R unsuccessful.		NO	NO
70	400KV-GMR-ANGUL-2	28/02/2021	15:59	Angul: Y-N, 25.7Km, 7.33kA; Insulator tracking was observed at tower no 85 from PGCIL end		Y-Earth	<100			NO	NO
71	400KV-PUSAULI(PG)-ALLAHABAD-1	28/03/2021	22:43	SASARAM - Y-N FAULT , FD - 63.7 KM , FC - 2.5 KA		Y-Earth	<100	again happened within Reclaim time.Dead time of A/R seems 700ms.		YES	NO
72	220KV-FSTPP-LALMATIA-1	28/03/2021	11:22	B-N FAULT, IB= 0.77KA, 86 Master trip relay		B-Earth	<100			NO	NO
73	400KV-RENGALI-INDRAVATI-1	28/03/2021	21:01	Rengali: Y-N, 182.5Km, 1.319kA	Indravati - YN - , FC- 1.8 KA , FD - 122.4 KM	Y-Earth	<100	BPHASE TCB mal-operation observed at rengali end.		YES	YES
74	400KV-PUSAULI(PG)-NABINAGAR(BRBCL)-2	28/03/2021	11:27	B-N FAULT, FD-27.72KM,FC 7.635KA FROM PUSAULI END	NABINAGAR B-N,FD 53KM	B-Earth	<100			YES	NO
75	400KV-MERAMUNDALI-LAPANGA-2	28/03/2021	05:42	Jumper Snap-on Y-ph reported, Y-B FAULT , FC- YPH- 27 KA . BPH- 27 KA , FD - 4.7 KM FROM LAPANGA		Y-B	200	Problem of delayed MCB opening observed.		YES	YES
76	220KV-BUDHIPADAR-KORBA-2	28/03/2021	05:45	Bus II tripped		No Fault	NA			NO	NO
77	400KV-MAITHON-GAYA-2	28/03/2021	00:37	Maithon: B-N,2.075kA, 153.65kM	Gaya: B-N, 85.7Km, 3.7kA	B-Earth	<100	Dead time of A/R at maithon end seems to be 2 seconds ,reason for this may please be explained.		YES	YES
78	400KV-MEERAMUNDALI-JSPL-1	29/03/2021	14:33	y-b z1 27.91 km from meeramandali iy=8.5 ib 8.2 KA		Y-B	<100			YES	NO

79	220KV-DEHRI-GAYA-1	29/03/2021	12:02	B-N 4.05 KA,40.8 km z1 from gaya		B-Earth	<100	A/R attempted at Gaya end but was uncccessful and at Dehri end no A/R and all three		YES	YES
80	400KV-JEYPORE-BOLANGIR-1	29/03/2021	13:00	JEYPORE: R_N, FD-254.64KM, FC-1.16KA,	BOLANGIR: R_N, Z-1, FD-21.911KM, FC-3.34KA	R-Earth	<100	why 3 phase tripping from both end at the instance of fault single phase fault		YES	YES
81	400KV-BINAGURI-ALIPURDUAR (PG)-1	30/03/2021	03:44	DT receipt at Binaguri end				DT send from APD end reason		YES	YES
82	220KV-DALTONGUNJ-GARWAH (NEW)-2	30/03/2021	11:26	DALTONGUNJ: B-N, 18KM, 3.46KA,		B-Earth	<100	During dead time voltage in B phase didn't become zero, Arching like phenomenon observed during that time and		YES	NO
83	220KV-DALTONGUNJ-GARWAH (NEW)-2	30/03/2021	11:47	DALTONGUNJ: Y-B, 61KM, 2.36KA		Y-B	<100	At the instance of charging B phase fault converted to Y-B phase fault and was pre-exixting till Y-B current became high and was detected by DP.Root cause of fault may be		YES	NO
84	400KV-NEW PPSP-ARAMBAGH-2	30/03/2021	12:10	NPPSP END: B-N fault, Distance-22.912 km, FC -6.07 KA, Zone1		B-Earth	<100			NO	NO
85	400KV-KHARAGPUR-CHAIBASA-1	30/03/2021	11:27	KHARAGPUR: Z1, R-N, 44KM, 6.2KA,	CHAIBASA: R-N,131KM, 3.575KA		<100			NO	YES
86	220KV-TTSP-TSTPP-1	30/03/2021	11:30	TTSP: R-N, Z2, 36KM, 0.5KA;	TSTPP: Z1, 6.2KM	R-Earth	<100			NO	NO
87	220KV-DALTONGUNJ-GARWAH (NEW)-1	30/03/2021	09:35	Zone 2, 80.607 km from Daltongunj	Garwah: Iy 0.495 KA Ib: 0.541 KA z1 23 km	Y-B	<100			YES	NO
88	220KV-DALTONGUNJ-GARWAH (NEW)-1	31/03/2021	09:49	DALTONGUNJ: B_N, Z-1, FD-47.8KM, FC-2.1KA		B-Earth				YES	NO