

भारत सरकार Govemment of India विद्युत मंत्रालय Ministry of Power **पूर्वी क्षेत्रीय विद्युत समिति**

Eastern Regional Power Committee

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

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NO. ERPC/PROTECTION/2020/ 4296-4339

DATE: 09.09.2020

To,

As per list enclosed,

Sub: Notice for 94th Protection Coordination sub-Committee (PCC) meeting of ERPC

Sir,

Notice is hereby given that **94th PCC meeting** of ERPC will be held on **17th September 2020 (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:

Saswat Ranjan Swain, Asst. Director-II, ERPC, Mob: 9337791451, E-mail: saswatrj123@gmail.com

The tentative agenda items for discussion will be as follows:

- 1) Confirmation of the minutes of 93rd Protection sub-Committee Meeting of ERPC.
- 2) Analysis of following grid disturbances of August 2020:

SI No	GD/ GI	Date	Time	Affected System	Summary	Load loss (MW)	Gen loss (MW)
1	GD-1	01-08- 2020	11:47	ISTS	At 11:47 hrs, 400 kV Dikchu-Rangpo S/C tripped from both ends due to B phase to earth fault resulting in tripping of both the running units at Dikchu. At same time Dikchu end breaker of 400 kV Teesta III – Dikchu S/C tripped after receiving SOTF trip signal from Main-2 relay (ABB REL 670). Consequently 400kV Bus-2 of Dikchu also became dead	0	100
2	GD-1	03-08- 2020	11:05	BSPTCL	On 03-08-20 at 10:15 Hrs 220 kV New Purnea-Begusarai-1 tripped on B phase to earth fault. Consequently 220 KV MTPS-Samastipur D/C kept open to reduce overloading of 220 KV Muzaffarpur(PG)-MTPS D/C. Also 220n kV Samatipur-DMTCL Darbhanga line was out due to flood. At 11:01 hrs 220 kV Biharshariff-Barauni D/C tripped from Biharshariff end on B-Phase to earth fault. At the same time 220 KV Barauni-Begusari-1 tripped in zone-2 from Barauni	232	180

					end. At 11:05hrs, 220 KV Begusarai-Khagaria and New Purnea –Khagaria ckt 2 tripped on B phase to earth fault. At 11:05 hrs. Running unit of Barauni (unit no. 8) generating 180 MW get islanded with Begusarai load and Samastipur load. Unit-8 of Barauni tripped on under frequency and complete blackout in 220 KV Barauni, 220 KV Begusarai & 220 KV Khagaria took place. Load loss of 232 MW in Rosra, Kucheswar, Dalsingsarai, Manjhaul, Samastipur, Khagaria areas took place.		
3	GD-1	03-08- 2020	17:35	OPTCL	At 16:17 hrs, 220 kV Rengali Switchyard (OPTCL)- Tarkera S/C tripped due to B phase to earth fault. At 16:58 hrs 220 kV Rengali Switchyard (OPTCL) - Barkote S/C tripped due to R and Y phase fault. At 17:17 hrs 220 kV Rengali Switchyard (OPTCL) - Rengali (PG) - 2 tripped due to Y and B phase fault. At 17:35 hrs 220 kV Rengali Switchyard (OPTCL) - Rengali (PG) - 1 tripped due to B phase fault. At same time, 220 kV TSTPP – Rengali PH S/C tripped from TSTPP end resulting in complete power failure at 220kV Rengali Switchyard (OPTCL) and at 220kV Rengali PH. All running units at Rengali PH tripped due to loss of evacuation path.	0	150
4	GD-1	04-08- 2020	19:33	BSPTCL	220 KV Barauni-Hajipur-1 was under breakdown and ckt-2 was not in service prior to the event. At 19:33 hrs, while taking charging attempt of 220 KV Barauni-Hajipur 2, 220 KV Muzaffarpur-Hajipur D/C tripped leading to a load loss of 313 MW in Hajipur, Chhapra, Amnour.	313	0
5	GD-1	09-08- 2020	07:41	BSPTCL	At 7:41 hrs R ph CT blast at Begusarai end of 220 KV BTPS Begusarai ckt 2. Subsequently, all connected 220 KV ckts and 220/132 KV ICTs at Begusarai tripped either on busbar/LBB protection or from remote ends on zone 2. At the same time, running unit 8 at 220 KV Barauni TPS with 220 MW generation tripped on overcurrent.220 kV BTPS -Hajipur 1 was under breakdown due to tower collapse and 220 KV BTPS Hajipur ckt 2 also tripped. As a result ,there was total voltage loss at 220 KV Begusarai s/s and load loss 175 MW took place in Dalsinghsarai BTPS(132Kv),Manjhaul, Ballia, Khagaria andBegusarai area.220 KV BTPS remained connected with 220 KV Biharshariff via 220 KV double ckts.	175	220
6	GI-1	14-08- 2020	20:23	BSPTCL	At 20:23 hrs 220 kV Tenughat Bihar Sharif S/C tripped due to Y phase to earth fault. At same time, 400/220 kV ICT 2 and 3 at Bihar Sharif, 220/132 kV ICT 1, 2 and 3 at Bihar Sharif, 132 KV Bihar sharif –Sheikhupura S/C also tripped.	332	0

7	GD-1	16-08- 2020	01:52	DVC	During line patrolling, it was found that Y phase Conductor of 220 kV Bihar sharif – TTPS S/C snapped at location No. 496-497 and fell on 132 kV Bihar sharif – Sheikhupura D/C at tower loc no. 10 from Bihar Sharif. At 01:52 Hrs, 220/132 kV Bokaro B S/S became dead after tripping of all connected 220 kV lines and 400/220 kV ICTs. Y phase CT burst was reported of 220 KV Bokaro B-Jamshedpur 2 at Jamshedpur end.	297	0
8	GD-1	19-08- 2020	22:04	OPTCL	At 21:51 hrs, 400 kV GMR Meramundali S/C tripped only from GMR end after receipt of direct trip signal (DT) from remote end. GMR unit # 3 got islanded and remained in house load operation before tripping at 22:04 hrs. 6.6 kV switchgear of unit # 2 and unit # 3 was in coupled condition. This resulted in high circulating current in the unit auxiliary transformer of unit # 2 and tripped tripping of transformer followed by tripping of unit # 2.	0	611
9	GD-1	22-08- 2020	16:46	ISTS	At16:46 hrs 400 kV Barh – Motihari – 2 tripped due to Y to B phase short circuit fault. The tripping led to loss of supply to 400kV Motihari (DMTCL), Betiah/Raxaul/Motihari (Bihar), being the only source of supply causing Grid Disturbance 1 (GD-1) category event.	117	0
10	GI-2	31-08- 2020	22:33	ISTS	At 22:27 HRs 400 KV Jigmeling-Mangdechu-2 tripped on B phase to earth fault. At 22:33 hrs while taking charging attempt of 400 KV Jigmeling-Mangdechu-2 ,400 KV Alipurduar-Jigmeling D/C tripped on zone-2 in Y to B phase short circuit fault. At the same time all the running units of Mangdechu and 400 KV Mangdechu-Jigmeling-1 tripped.	0	520

3) Single line tripping incidences of transmission lines 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 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,

-sd-(P.N. Sarkar) Superintending Engineer

LIST OF ADDRESSES:

Chief Engineer, Trans (O&M)	Electrical Superintending Engineer (CRITL)
Bihar State Power Transmission Limited, Vidyut	Bihar State Power Transmission Limited, Vidyut
Bhawan, Bailey Road, Patna-800021	Bhawan, Bailey Road, Patna-800021
Chief Engineer (SLDC)	Chief Engineer (CTC)
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Andul Road, Howrah-711109	Vidyut Bhavan, 7 th Floor, Bidhannagar, Sector-I
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Dy. Chief Engineer (Testing)/ Sr. Manager (Testing)	General Manager (O&M)
CESC Ltd.,4, Sasi Sekhar Bose Road,	KhSTPS, NTPC Ltd., P.O. Deepti Nagar,
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General Manager(O&M)	Dy. General Manager (Engineering),
FSTPS, NTPC Ltd., P.O. Nabarun,	WBPDCL, OS Dept. Corporate Office, 3/C, L.A
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General Manager (O&M)	General Manager (OS), ERHQ-II, NTPC Ltd., 3 rd flr.
Barh STPS, NTPC Ltd., P.O. NTPC Barh,	OLIC Building, Plot no. N 17/2, Nayapalli, Unit-8
Dist. Patna, Bihar-803213	Bhubaneswar- 751012 (Fax No. 0674-2540919)
General Manager(O&M), TSTPS, NTPC Ltd.,	General Manager (O&M), POWERGRID, Odisha
P.O.Kaniha, Dist. Angul, Orissa-759117	Projects, Sahid Nagar, Bhubaneswar – 751 007
General Manager (OS), ERHQ-I, NTPC Ltd.,	Manager (Electrical), Adhunik Power & Natural
Loknayak Jaiprakash Bhawan, (2 nd Floor),	Resources Ltd. "Lansdowne Towers, Kolkata-700020
Dak Bunglow Chawk, Patna-800001	(Fax No. 033-2289 0285)
Executive Director (O&M)	Electrical Superintending Engineer, TTPS,
NHPC Ltd., NHPC Office Complex, Sector-33,	Tenughat Vidyut Nigam Ltd., Lalpania, Dist. Bokaro,
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Dy. General Manager (Electrical)	General Manager (OS), ER-I
IB Thermal Power Station, OPGCL	Power Grid Corporation of India Ltd.,
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Chief Engineer (Trans.)	Sr. Manager (CTMC)
Power Deptt., Govt. of Sikkim, Gangtok-731010	Durgapur Projects Limited, Durgapur-713201
Executive Director,	Head Construction, ENCIL, Siliguri-7340051
ERLDC, POSOCO, Tollygunge, Kolkata-700033	
General Manager (OS), ER-II	Shri A.K.Nayak/Shri Sumit S Ghosh
Power Grid Corporation of India Ltd.,	Maithon Power Limited, Maithon Office, MA 5
J-I-15, Block-EP, Sector-V,Salt Lake,Kolkata-91	Gogna, Dist. Dhanbad, Jhankand State, PIN-828207
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General Manager, Darbhanga (Bihar), Darbhanga	Shri Brajesh Kumar Pande, Plant Head, JITPL.

Motihari Transmission Company Limited (DMTCL)	(FAX:011-26139256-65)
Shri D. P. Bhagava, Chief Consultant (O&M), Teesta	Director (GM Division), Central Electricity Authority
Urja Limited, New Delhi (FAX:011-46529744)	Sewa Bhawan, R. K. Puram, New Delhi-110066
Director (NPC), CEA, NRPC Building, Katwaria	President, Dans Energy Pvt. Ltd, 5th Floor, DLF
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Director, Shiga Energy Pw. Ltd., 5th Floor, DLF	DGM (E&I), HALDIA ENERGY LIMITED, BARIK
Building No. 8, Tower-C, Gurgaon - 722OO2	BHAWAN, KOKATA-700072, FAX: 033-22360955

CC:

ASSISTANT SECRETARY, ERPC		
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	List of important transmission lines in ER which tripped in AUGUST-2020												
S.NO	LINE NAME	TRIP DATE	TRIP TIME	Relay Indication LOCAL END	Relay Indication REMOTE END	Reason	Fault Clearance time in msec	Remarks	DR CONFIGURA TION DESCREPAN CY	DR/EL RECEIVED FROM LOCAL END	DR/EL RECEIVED FROM REMOTE END	Utility to update	
1	400KV-RANGPO-DIKCHU-1	01-08-2020	11:46	,B-N,zone 2, 30.81 km (32 km line length),7.68 kA at rangpo	b-n,e/f at dikchu	MAL- OPERATION	200	Issue of SOTF setting at Dikchu end and other issues and recommended settings already intimated		YES	YES	Dikchu	
2	220KV-TENUGHAT-BIHARSARIFF- 1	01-08-2020	13:15	R-N,Z1 AT BSEB	Ia=2.051KA, 1b=418.8A, Ic =180.8A, fault location 44.89 km, zone 1 at Jharkhand	R-N FAULT	<160	NO A/R		YES	YES		
3	400KV-MERAMUNDALI- LAPANGA-2	01-08-2020	11:57	meramundli-DP,zone-1,B-N fault,1.409km,4.4 KA	Lapanga-DP zone-1,B-N fault,12km,2.733KA	B-N FAULT	<100	MCB AND TCB A/R are not time delayed and 3 phase voltage went upto 600 Kv after 3 pole opening due to reactor ringdown.	Meeramundali end mcb ,tcb status needs to be configured .	YES	YES	OPTCL	
4	400KV-TEESTA-III-DIKCHU-1	01-08-2020	11:47	b-n,5.185 kA,def pick up bt not tripped with dikchu	dikchu end breaker open	B-N FAULT	200	Issue of SOTF setting at Dikchu end and other issues and recommended settings already intimated		YES	YES	Dikchu	
5	220KV-TTPS-TSTPP-1	02-08-2020	19:58	TSTPS_B-PHASE DISTANCE-4.7 KM FAULT CURRENT-12.03 KA		B-N FAULT	<100	B-N fault no A/R.	DR CHANNELS NOT CONFIGURED PROPERLY	NO	YES		
6	220KV-RENGALI-TTPS-1	02-08-2020	19:17	TTPS end, Zone -1, B- phase (4.366 kA) at a distance 40.8 km	B-ph conductor snapped at loc. 122	Y-B FAULT	<100	Y-B FAULT	DR CHANNELS NOT CONFIGURED PROPERLY	NO	YES		
7	220KV-RENGALI(PH)-TSTPP-1	02-08-2020	19:17	TSTPP: B-N,FD	RENGALI:B-N,Z1,FD 5.84KM,FC 2.05KA	B-N FAULT	<100	Y-B FAULT	DR CHANNELS NOT CONFIGURED PROPERLY	NO	NO		
8	400KV-ALIPURDUAR (PG)- BONGAIGAON-2	02-08-2020	11:07	APD:Y-N,FD 60.5KM,FC 4.07KA	BONGAIGAON: Z2, Y- N, 1.73KA, 85KM	Y-N FAULT	<100	Tripped in reclaim time	DR , CB status not configured .	YES	NO		
9	400KV-NEW PPSP-NEW RANCHI-1	02-08-2020	11:59	NPPSP:B-N,Z1,FC 5.74KA,FD 23.8	N RANCHI: B-N,FC 4.720KA,FD 108.35KM	B-N FAULT	<100	Issue of secondary arcing as weel as reactor ringdown also observed after 3 pole opening.Dt received from PPSP this may plz be explained.		NO	YES	PG ER-1	
10	220KV-BUDHIPADAR-KORBA-3	02-08-2020	02:09	Budhipadar: Y Ph, Z-I, 1.75 Km, 22.77 KA		Y-N FAULT	<160	NO A/R		YES	NO		
11	220KV-BUDHIPADAR-KORBA-2	02-08-2020		Budhipadar: Y Ph, Z-I, -1 Km, 21.92 KA		Y-N FAULT	<160	NO A/R		YES	NO		
12	220KV-JODA-RAMCHANDRAPUR-1	03-08-2020		· ·	R-phase,Z-1,97.97 km,r- 2.169KA,B-65.21A,Y- 191.5A	R-N FAULT	<160			NO	NO		

13	220KV-BEGUSARAI-NEW PURNEA-1	03-08-2020	22:20	NPurnea : R- N,72.7KM,FC 2.44KA	Dir. O/C, E/F, (67/67N optd),86B, Ia=1.14kA,Ib=184A, Ic=197.1A,In=1.244kA	R-N FAULT	600			NO	NO	
14	220KV-KHAGARIA-NEW PURNEA-1	03-08-2020	20:07	R-N FAULT,41.4KM,4.11KA FROM PURNEA END	no trip at new purnea	R-N FAULT	200			NO	NO	
15	400KV-BINAGURI-ALIPURDUAR (PG)-1	03-08-2020	13:16	Y-N 8.2 KA AT APD DRY	Y-N.112.5 KM,4.297 KA Z1	Y-N FAULT	<100	Issue of secondary arcing as weel as reactor ringdown also observed after 3 pole opening. This secondar arcing may also have caused failed A/R		YES	YES	
16	220KV-RENGALI(PH)-TSTPP-1	03-08-2020	17:35	B-PHASE,ZONE- 1,DISTANCE-9.4 KM,FAULT CURRENT: 8.8 KA at Talcher	not available details at odisha	B-N FAULT	<100	NO A/R		NO	YES	
17	220KV-RENGALI(GRIDCO)- RENGALI(PG)-2	03-08-2020	18:38	pilot protection due to reverse tripping of 220 kV barkot rengali feederr(which tripped at 16:58 hrs);(10 kA in barkot - rengali feeder at rengali end)	no trip at pg end	NO FAULT	NA			NO	NO	
18	220KV-RENGALI(PG)- RENGALI(GRIDCO)-1	03-08-2020		pilot protection	no trip at pg side	B-N FAULT	520			NO	NO	
19	220KV-RENGALI(GRIDCO)- RENGALI(PG)-2	03-08-2020	17:19	pilot protection	no trip at pg side	NO FAULT	NA			NO	NO	
20	220KV-FSTPP-LALMATIA-1	03-08-2020	12:15	no trip at lalmatia	b-n,z1,63 km ,2 kA at fstpp	B-N FAULT	<100			NO	NO	
21	220KV-TENUGHAT-BIHARSARIFF-1	03-08-2020	10:22	R-N,O/C START,83.21 ms,49.91 KM,IR=2.165 KA,Z1 FROM TENUGHAT weather normal	R-N Z1 fault duration - 41.60msec Relay trip time- 891.9sec Fault location- 130.7km Ir- 1.101kA Iy- 99.33A Ib-99.03A	R-N FAULT	<100	NO A/R	MCB status in DR not proper at BSF end .CB status at Tenughat not configured properly.	YES	YES	BSPTCL,JUSNL
22	220KV-BEGUSARAI-NEW PURNEA-1	03-08-2020	10:15	B-N,2.21 KA,75.6 KM FROM NEW PURNEA	86A,21M1XR 21M1XY 21M1XB, Ia=174mA,Ib=180mA,Ic= 1.169A. from begusarai	B-N FAULT	350			NO	NO	
23	220KV-BARIPADA-BALASORE-2	03-08-2020	09:59	R-N,62.27 KM,1.075 KA,(72 KM LIENGTH) FROM BARIPADA	R-N,2.94 kA,22.96 KM FROM BALASORE weather normal	R-N FAULT	<160			NO	NO	
24	220KV-MUZAFFARPUR-HAJIPUR- 1	04-08-2020	19:33	R_N Fault, 109 kA (Hajipur)		R-N FAULT	<160	ALL 3 PHASE CURRENT WERE HIGH FOR 600 MS ,WHY LBB INITIATED AT HAZIPUR END ?		YES	NO	BSPTCL

25	220KV-MUZAFFARPUR-HAJIPUR- 2	04-08-2020	R_N Fault, 109 kA 19:33 (Hajipur)		R-N FAULT	<160	ALL 3 PHASE CURRENT WERE HIGH FOR 600 MS ,WHY LBB INITIATED AT HAZIPUR END ?		YES	NO	BSPTCL
26	400KV-ALIPURDUAR (PG)- BINAGURI-3	04-08-2020	11:09 B_N, 117.7 KM, 1.6 kA	B_N, 29.36 KM, 0.7 kA	B-N FAULT	<100			YES	NO	
27	400KV-NEW PURNEA- MUZAFFARPUR-2	04-08-2020	N. Purnea: B-N, 2.37KA, 18:33 220Km	Muzaffarpur: B-N, 2.6KA, 110.6Km	B-N FAULT	500	PURNEA END OPENED IN Z-2 TIME ,SEEMS SOME ISSUE IN POTT SCHEME		YES	YES	PG ER-1
28	220KV-FSTPP-LALMATIA-1	04-08-2020	16:42 DT received at FSTPP	Overcurrent in Y, B ph	Y-B FAULT	1500			NO	NO	
29	220KV-KHAGARIA-NEW PURNEA- 2	04-08-2020	Y_B_N, Iy: 1.14 kA, Ib: 16:05 1.30 kA, 84.71 KM		Y-B FAULT	<160			NO	NO	
30	220KV-MALDA(PG)-GAZOLE-1	04-08-2020	220 KV Bus I tripped at 15:41 Malda		B-N FAULT	<100			YES	NO	
31	400KV-PPSP-BIDHANNAGAR-1	04-08-2020	15:29 Z1, R-N, 153.3Km	Z1, R-N, 42.8Km	R-N FAULT	<100			NO	NO	
32	400KV-BINAGURI-KISHANGANJ-1	04-08-2020	R_N, 98.5 KM, 5.57 kA 14:47 (Kishanganj)		R-N FAULT	<100			YES	YES	
33	400KV-BAHARAMPUR- SAGARDIGHI-2	04-08-2020	B_N, 3.93 kA, 26 KM 14:08 (Baharampur)	B_N, 2.717 KM, 17.38 kA (Sagardighi)	B-N FAULT	<100	Tripped in reclaim time	CB status not showing correct value may please be checked at	YES	NO	
34	220KV-BUDHIPADAR-KORBA-3	04-08-2020	Tripped during switching off of PLCC while shifting to TBC bay for replacement of R-ph supervision relay.		NO FAULT	NA	NO A/R		NO	NO	
35	400KV-BINAGURI-ALIPURDUAR (PG)-1	04-08-2020	Y_N, 82.54 KM, 4.863 kA, DT received 13:07 (Binaguri)	Y_N, 8 kA, 24.4 KM	Y-N FAULT	<100	Issue of secondary arcing as weel as reactor ringdown also observed after 3 pole opening. This secondar arcing may also have caused failed A/R		YES	YES	
36	220KV-KHAGARIA-NEW PURNEA- 2	04-08-2020	N.Purnea: Z1, B-N, 09:45 2.29KA, 7.1Km	Khagaria: Z1, B-N, 880A, 42.07Km	B-N FAULT	<160	NO A/R		NO	NO	
37	220KV-SUBHASGRAM(PG)-NEW TOWN-1	04-08-2020	SUBHASGRAM: B-N,FD 00:19 9.035KM,FC 5.692KA	1 87KA	B-N FAULT	<160	Reason may be explained and ,what was the Fault?		YES	YES	
38	220KV-SUBHASGRAM(PG)- BANTALA-1	04-08-2020	Bantala : 86 Master trip 00:19 A/R lockout	No tripping at Subhasgram	B-N FAULT	<160	Reason may be explained and ,what was the Fault?		_		
39	220KV-SUBHASGRAM(PG)- CESC(EMSS)-1	04-08-2020	WB(CESC): Line 00:19 Differential Relay (B-ph)	S'gram: Line Differential Relay (R-YB-ph),FC IR 9.53KA,IY 1.08KA,IB 6.46KA,FD 10.8KM	B-N FAULT	<160	Reason may be explained and ,what was the Fault?		YES	YES	
40	400KV-BINAGURI-TALA-2	05-08-2020	Y-N fault, F/C = 2.481 KA, F/D = 140.3 km AT 23:53 BINAGURI		Y-N FAULT	<100	Issue of secondary arcing as well as reactor ringdown also observed after 3 pole opening.		YES	NO	

41	220KV-ALIPURDUAR (PG)- BIRPARA-2	05-08-2020	12:25 BRP: R-n, 48 km, 1.2 kA	ALPDR: R-n, 8.3 km, 6 kA	R-N FAULT	350	Fault in Z-2 of Birpara end .No carrier aided tripping so no A/R from Birpara end but A/R successful from Apd end .This may plz be explained whether carrier aided tripping is there or not?	YES	YES	WBSETCL
42	400KV-PPSP-BIDHANNAGAR-1	05-08-2020	Zone-1, R-ph, 6.704ka, 42.27KM, PPSP end: 11:56 Zone-1, R-phae, 135.7KM		R-N FAULT	<100	NO A/R AT PPSP END	NO	NO	
43	400KV-PPSP-BIDHANNAGAR-1	05-08-2020	DGP end: Zone-1, R-ph, 6.74ka, 42.15KM, present 11:17 voltage 409KV		R-N FAULT	<100	NO A/R AT PPSP END	NO	NO	
44	400KV-RANCHI-SIPAT-2	07-08-2020	Z1, R-N FD-7.282km FC- 20:11 26.77kA		R-B FAULT	<100	Reactor ringdown observed after 3 pole opening high line voltage observed.	YES	NO	
45	220KV-KHAGARIA-NEW PURNEA- 2	07-08-2020	Khag-Y-Phase, B-Phase, Z 1, Ia:80.11A Ib:1.367kA 09:54 Ic:1.465kA FD: 72.79km		Y-B FAULT	<100		NO	NO	
46	400KV-MERAMUNDALI- LAPANGA-2	08-08-2020	MEERAMUNDALI: Z2, 10:13 R-N, 2.52KA, 184KM	LAPANGA: Z1, R-N, 20KA, 3.5KM	R-N FAULT	<100	MCB AND TCB A/R are not time delayed and 3 phase voltage went upto 600 Kv after 3 pole opening due to reactor ringdown.	YES	YES	OPTCL
47	220KV-DEHRI-GAYA-2	08-08-2020	GAYA: B-N, 65KM, 2.75KA, A/R 14:24 SUCCESSFUL	DEHRI: B-N, 2.2KA, 31KM	B-N FAULT	<100		NO	YES	
48	220KV-MAITHON-DHANBAD-1	08-08-2020	TRIPPED FRO 14:06 MAITHON END	MAITHON :B-N,FD 42.2KM,FC 4.29KA	B-N FAULT	350	Fault in zone-2 from Maithon end so 3 phase tripping seems no carrier aided tripping .A/R was successful from Dhanbad end .	YES	NO	DVC
49	220KV-CHANDIL-STPS(WBPDCL)- 1	08-08-2020	STPS: Z1, B-N, 4KA, 12:40 25KM	CHANDIL:B-N, 95.5KM, 1.2KA	B-N FAULT	1100	B phase current was high till 1.5 seconds at chandil end .B phase fault then Y phase fault observed at chandil end .Earth fault and overcurrent tripping observed .When B phase DP sensed the fault ,B phase why breaker did not tripped ?What protection operated .Reason for delayed tripping may please be explained .	YES	YES	JUSNL
50	400KV-KODERMA- BIHARSARIFF(PG)-1	08-08-2020	09:36 DT received at Koderma	DT received at BSF	NO FAULT	NA	Reason of DT may be explained ?	NO	YES	

51	400KV-TSTPP-ROURKELA-1	09-08-2020	DT RECEIPT;DP Z1 R-N 10:09 75.7 KM,5.23 KA	Z1,R-N,90.91 KM,4.12 Ka at rourkella	R-N FAULT	<100			YES	NO	
52	220KV-BEGUSARAI-NEW PURNEA-1	09-08-2020	,R-n1.17 kA,220.1 km 07:41 from n purnea	master trip at begusarai	R-N FAULT	350	Z-4 operated at Begusarai , opened within 100 ms so Z-4 setting may please be checked ?		NO	YES	BSPTCL
53	220KV-KATAPALLI- BOLANGIR(PG)-1	10-08-2020	BOLANGIR: Y-B, IY- 2.85KA, IB-3KA, 15:32 37.5KM	KATAPALLI: Y-B, Z1, 66KM, IY-3.14KA, IB- 2.9KA	Y-B FAULT	<100			YES	NO	
54	400KV-BINAGURI-TALA-2	11-08-2020	56 km ,R-B,ir-7.88 kA; ib- 7.4 KA z1 AT 18:56 BINAGURI	r-b 86.9 km tala ir-3.3 KA ib=2.2 KA		<100	After 3 pole opening ,line voltage was there due to reactor ringdown .		YES	NO	
55	220KV-FSTPP-LALMATIA-1	11-08-2020	10:43 z1 B-n,62 km at fstpp	NO TRIP AT LALMATIA END	B-N FAULT	<100			NO	NO	
56	400KV-FSTPP-KHSTPP-4	12-08-2020	DT received, Tripped from 19:45 FSTPP end only		NO FAULT	NA	Reason of DT may be explained?		YES	NO	NTPC FSTPP
57	400KV-BAHARAMPUR- SAGARDIGHI-2	12-08-2020	16:47 DT received		NO FAULT	NA	Reason of DT may be explained?		YES	NO	PG ER-2 , WBSETCL
58	400KV-BAHARAMPUR- SAGARDIGHI-1	12-08-2020	16:47 DT received		NO FAULT	NA	Reason of DT may be explained?		YES	NO	PG ER-2 , WBSETCL
59	765KV-NEW RANCHI- DHARAMJAIGARH-2	12-08-2020	Tripped from 15:36 Dharamjaigarh only		NO FAULT	NA	Reason of DT may be explained?		YES	NO	PG-ER-1 , WR
60	220KV-JODA-RAMCHANDRAPUR- 1	13-08-2020	RChandrapur-EF, Y-N FD NA FC-Ib-1.347kA Ia- 13:35 451.6A Ic-274A	Joda-Y-N FC-307.55A FD 100.8km	Y-N FAULT	800			NO	NO	
61	220KV-HAZIPUR-MUZAFFARPUR-1	13-08-2020	Z-1, R-N fault, FD 7.18KM,FC 00:21 10.77KA@MZF	Z1 Trip R Phase fault Fault Duration: 66.69ms Fault Distance: 52.69 KM ,FC1.7KA	R-N FAULT	<100			NO	NO	
62	220KV-TENUGHAT-BIHARSARIFF-1	14-08-2020	Y-N Fault, Zone 2, location - 184.8 KM from TTSP, Ir- 782 A, Iy- 1.342 KA, Ib- 382 A, Fault Resistance -15.8 ohm	Y-N,o/c e/f 27.15 kA in iY at biharshariff	Y-N FAULT	350	Tenughat tripped after Zone 2 time and Y-n fault while at Biharshariff end R-Y-B-G fault so tripped in 100 ms .No carrier aided tripping .What was the nature of fault and type may please be intimated .		YES	YES	BSPTCL, JUSNL
63	220KV-DARBHANGA (DMTCL)- MOTIPUR-2	14-08-2020	DMTCL: B-N, 4.14KA, 14:22 32Km	Motipur: B-N, 1.529KA, 78.75Km	B-N FAULT	<100	A/r successful from DMTCL end but unsuccessful from motipur end .		YES	YES	BSPTCL
64	220KV-DARBHANGA (DMTCL)- MOTIPUR-1	14-08-2020	DMTCL: B-N, 60.1Km, 12:28 2.05KA	Did not trip at BSEB end	B-N FAULT	<100	A/r successful from Motipur end but no A/R at DMTCL end .Reason may be explained from DMTCL.	CB STATUS IS NOT PROPER.	YES	YES	DMTCL
65	220KV-DALTONGUNJ-GARWAH (NEW)-2	16-08-2020	DALTONGUNJ: Z2, Y-B, 82KM, IY-1.3KA, IB- 18:14 1.3KA		Y-B FAULT	<100	During Pre fault also Y &B phase 170 degree displaced.		YES	YES	JUSNL

66	400KV-BARIPADA-KHARAGPUR- 1	16-08-2020	KHG: Y-B-N,Z1,FD 51KM,FC IY 2.4KA,IB 13:54 1.3KA	BARIPADA: Z1, Y-B, FD- 41KM, IY-2KA, IB-3KA	Y-B FAULT	<100		NO	NO	
67	220KV-MAITHON- KALYANESHWARI-2	17-08-2020	Maithon R-N, FC 10.7 ka, 20:19 Dist 4.9 km	Kalyanashwari Zone 1	R-N FAULT	<100	Only R phase breaker opened then no A/R observed at maithon end and after 1.5 seconds all 3 poles opened .Whether PD operated? Why A/R not operated.	YES	NO	DVC,PG-ER-2
68	400KV-MEERAMUNDALI- MENDHASAL-1	17-08-2020	Stub protection operated 04:28 at Mendhasal	No fault observed as per PMU signature	NO FAULT	NA	Why stub operated ?	YES	NO	OPTCL
69	400KV-NEW CHANDITALA- KHARAGPUR-1	18-08-2020	N.Chanditala end: Yph, Z1,14.17km, Fault 08:41 current=3.681kA. AR LO	KGP end: Yph, Z1, 114.8km. Fault	Y-N FAULT	<100		NO	NO	
70	400KV-JHARSUGUDA-RAIGARH-3	19-08-2020	R-B fault, Z-1, IR- 6.7 KA, IB-3.04 KA, 64.12 14:22 km from Jharsuguda	R-N fault, Z-1, IR- 8.42 KA, 25.81km from Raigarh	R-B FAULT	<100	Insulator decapping.	NO	NO	
71	400KV-MEERAMUNDALI-GMR-1	19-08-2020	Spurious DT received 21:51 from Meeramundali		NO FAULT	NA		NO	NO	
72	220KV-BOLANGIR(PG)- SADEIPALI-1	19-08-2020	Tripped from only OPTCL end at the time of successful A/r of 400 kV 18:29 Jeypore - bolangir		NO FAULT	<100	Tripped enchroching the nexty level fault of jeypore -bolangir.	NO	NO	OPTCL
73	220KV-BOLANGIR(PG)- BOLANGIR(GRIDCO)-2	19-08-2020	Tripped from only OPTCL end at the time of successful A/r of 400 kV 18:29 Jeypore - bolangir		NO FAULT	<100	Tripped enchroching the nexty level fault of jeypore - bolangir.	NO	NO	OPTCL
74	220KV-BOLANGIR(PG)- BOLANGIR(GRIDCO)-2	19-08-2020	B-N, Z-3, 1.22 KA ,110.3 Km FROM BOLANGIR 15:40 GRIDCO		B-N FAULT	<100		NO	NO	
75	400KV-MERAMUNDALI- LAPANGA-2	19-08-2020	R-N, Z-1, 2.33 KA, 177KM FROM 14:27 MERAMUNDALI	R-N, Z-1, 18.1 KA, 4.1 KM FROM MERAMUNDAL	R-N FAULT	<100		YES	NO	
76	400KV-KOLAGHAT-KHARAGPUR- 2	19-08-2020	B-N, Z-1, 18.18 km from 08:19 Kolaghat, 7.38 KA		B-N FAULT	<100		NO	NO	
77	220KV-NEW PURNEA- MADHEPURA-2	20-08-2020	NPRN: B-N, 13.7Km, 08:48 3.78KA	B-N, carrier send, Z1 trip, FC :1.82 kA, FD : 75.2 km	B-N FAULT	<100	A/R not observed in DR frame.	YES	YES	
78	400KV-PPSP-BIDHANNAGAR-1	20-08-2020	02:49 PPSP: B-N, 190 km, 2 ka	BIDHANNAGAR: 86a, b-n, zone 1, 8.2 km.	B-N FAULT	<100		NO	NO	
79	400KV-RENGALI-KEONJHOR(PG)-	21-08-2020	Rengali : Z1,RY-ph, 56 19:15 km, Ir -7.6 KA, Iy -7 KA	Keonjhar : Z1,RY-ph, 40.1 km, Ir- 2.9 KA, Iy -2.5 KA		<100		NO	NO	

80 81 82	220KV-JSPL-JAMSHEDPUR(DVC)- 1 220KV-RENGALI-TTPS-1	21-08-2020 21-08-2020	fault location 120 km from JSPL end, Z-2, R-N, 1.26		R-N FAULT NO FAULT NO FAULT	<160 NA NA		NO NO	NO NO	
83	220KV-GAYA-SONENAGAR-1 220KV-TENUGHAT-PATRATU-1	21-08-2020 21-08-2020	17:50 SON NAGAR TRIPPED FROM ONLY 07:55 TENUGHAT		NO FAULT	NA	No fault observed .Y pole breaker opened first and earth fault started then after 700 ms all 3 poles opened .Reason may be explained ?	YES	NO	BSPTCL , JUSNL
84	400KV-NEW PURNEA- BIHARSARIFF(PG)-1	22-08-2020		Bihar-Sharif : B-N Fault, 23.4 km, 11.15 kA	B-N FAULT	<100	Reactor ringdown observed after 3 pole opening high line voltage observed .	YES	YES	
85	400KV-MOTIHARI-BARH-2	22-08-2020	Barh: Y-B Phase to Phase Fault, FD: 10.5 km, IY:17.89 kA, IB: 17.79	Motihari: DT received.	Y-B FAULT	<100	DT received at Motihari	YES	NO	
86	220KV-CHANDIL-STPS(WBPDCL)-1	22-08-2020		Chandil: R phase E/F, zone 1, If: 1.921kA, FD: 59.7 km, A/R successful. Line remianed charged.	R-N FAULT	<100	A/R successful from Chandil end	NO	NO	
87	400KV-BARIPADA-KHARAGPUR- 1	22-08-2020	Baripada: R-N, 44.83Km, 12:32 3.86KA	KGP: Z1, R-N, 60.15Km, 3.14KA	R-N FAULT	<100	Tripped in reclaim time	NO	NO	
88	400KV-KHARAGPUR-KOLAGHAT-1	22-08-2020	KGP: Z1, B-N, 44.33Km, 11:42 5.733KA	KTPP: Z1, B-N, 27.34Km, 4.151KA	B-N FAULT	<100		NO	NO	
89	400KV-RANCHI- RAGHUNATHPUR-3	23-08-2020	Ranchi-Z1 B-N FC- 16:51 16.782kA FD-6.44km		B-N FAULT	<100	A/R unsuccessful,Secondary arcing observed in faulted phase.	YES	NO	PG-ER-1 , DVC

90	220KV-MAITHON-DUMKA-2	23-08-2020	MAITHON-Z1 R-N FC- 15:45 3.47kA FD-68.7 km	DUMKA-FC-Ir:- 2.85kA, FD- 11.6km	R-N FAULT	<100	3 Phase tripping occurred at maithon end at the instant of fault for 1 phase fault , No Auto reclose observed		YES	NO	PG-ER- 2,JUSNL
91	400KV-KOLAGHAT-KHARAGPUR- 2	23-08-2020	KGP end - Z1, Y -N, FC- 12:25 3.918 kA FD-60.93 km	KTPP end -Z1, Y -N, FC- 5.97 kA FD-29.46 km	Y-N FAULT	<100			NO	NO	1
92	400KV-DSTPS(ANDAL)- RAGHUNATHPUR-1	24-08-2020	19:15 Y-N FAULT		Y-N FAULT	<100	B-EARTH FAULT FIRST AFTER 200 MS OF THAT AGAIN Y PHASE FAULT .		YES	YES	
93	400KV-MEERAMUNDALI- BOLANGIR-1	24-08-2020	Y phase LA blast, Y-E, IY=25.23KA, Dist=18.2 18:13 KM	Y-E, zone-2, 1.4 kM and 216.1	Y-N FAULT	500	SEVERE HIGH VOLTAGE UPTO 1200 KV OBSERVED IN ALL 3 PHASES		YES	NO	OPTCL
94	220KV-KHAGARIA-NEW PURNEA-1	24-08-2020	N. Purnea: R-N, 65.9Km, 03:46 2.78KA, A/R successful	Khagaria: R-N, Z-1, Dist Prot M1 M2 optd,IR: 1.61kA IY: 0.09kA IB: 0.26kA	R-N FAULT	<100			NO	NO	
95	400KV-MERAMUNDALI- LAPANGA-1	25-08-2020	B-N,5.28 KA,110.1 km from Meeramandali;b ph voltage not being found at 17:23 meeramandali	lapanga end no trip	B-N FAULT	<100	A/R unsuccessful from Meramundali end and all 3 pole opened from merramundali end but was closed from lapnga end? Lapnga end dr may be shared	Only CFG file	YES	NO	OPTCL
96	400KV-ALIPURDUAR (PG)- BONGAIGAON-1	25-08-2020	Alipurduar: R-B, 10.8 kM 21:16 , Ir 12.6 ka, Ib 12.9 kA	Bongaigaon: 56 kM R-B Z1	R-B FAULT	<100			YES	NO	
97	400KV-PPSP-NEW RANCHI-1	25-08-2020	17:09 dt received at new ranchi	master trip relay operated,dt sent at Nppsp end	NO FAULT	NA	Oscillating line voltage present after 3 pole opening		YES	NO	
98	220KV-KHAGARIA-NEW PURNEA-2	25-08-2020	a/r successful from purnea end;R-N,75.8 km,2.27 kA from new purnea;weather 13:59 normal	z1 26 km,R-N, 1.3 KA at khagaria	R-N FAULT	<100			NO	NO	
99	220KV-CHUKHA-BIRPARA-2	26-08-2020	18:33 Yet to berecived	R-Y,zone-2,70KM, IR=1.65KA, IY=.879 A	R-Y FAULT	<100	MULTIPLE FAULTS		NO	YES	
100	220KV-CHUKHA-BIRPARA-1	26-08-2020	18:33 Yet received		Y-N FAULT	<100	MULTIPLE FAULTS		NO	YES	
101	220KV-BIRPARA-MALBASE-1	26-08-2020	DEF, B-N FAULT,287 AMP RESIDUAL 08:54 CURRENT		DEF	6000			NO	NO	

102	220VV DALTONGUNI GADWAII		R-Y fault, 80.89 km	Ir-1.27 KA Iy-1.30 KA Ib 14.97 KA z1 5.69 km from	D V FALLET	<100			NO	NO	
102	220KV-DALTONGUNJ-GARWAH (NEW)-2	27-08-2020	ir=1.485 ka,iy=1.448 kA 15:17 z2from Daltongunj (pg)	garwah	R-Y FAULT	<100			NO	NO	
103	765KV-JHARSUGUDA-RAIPUR PS (DURG)-1	28-08-2020	09:13 DT received at Jharsuguda		NO FAULT	NA			NO	NO	
104	220KV-CHANDIL-STPS(WBPDCL)-	28-08-2020	STPS: Z1, B-N, 60.19Km, 11:05 2.115KA	Chandil: Z1, R-B	B-N FAULT	<160			NO	NO	
105	400 Kv Meeramundali - Lapanga -I	28-08-2020	B_N, 3.04 KM, 22.6 kA 12:10 (Lapanga)	B_N, 191.7 KM, 2.63 kA	B-N FAULT	<100			YES	YES	
106	400KV-MEERAMUNDALI- BOLANGIR-1	28-08-2020	Bolangir: Z1, R-N, 09:54 134.4Km, 1.36KA	Meeramundali: R_N, 130.1 KM, 3.35 kA	R-N FAULT	<100	A/R not observed in DR frame.	Meramundali DR time is very short for all events this may please be rectified as per ERPC philosophy	YES	NO	OPTCL
107	220KV-BOLANGIR(PG)- SADEIPALI-2	28-08-2020	Tripped from overcurrent 09:54 from Sadeipalli end		NO FAULT	NA	O/C operated overreaching the fault of 400 kv meramundali bolangir .		NO	NO	OPTCL
108	400KV-DSTPS(ANDAL)- RAGHUNATHPUR-1		17:50 DSTPP-DT send	RNP-Received	NO FAULT	NA			NO	YES	
109	400KV-MEERAMUNDALI-BOLANGIR-1	29-08-2020 29-08-2020		-Bolangir-Z1 FD-142.45km FC-1.40kA	R-N FAULT	<100	A/R successful tripped in reclaim time .	Meramundali DR time is very short for all events this may please be rectified as per ERPC philosophy	YES	NO	
110	220KV-ALIPURDUAR (PG)- SALAKATI-2	30-08-2020	Z1, R-B fault, F/D- 60.0Km from APD, F/C- 23:52 2.767KA		R-B FAULT	<100			YES	NO	
111	220KV-ALIPURDUAR (PG)- SALAKATI-1	30-08-2020	Z1, R-B fault, F/D- 61.5Km from APD, F/C- 23:52 2.728KA	R-B fault, Z-1 37.3 Km from Salakathi, 4.1 KA	R-B FAULT	<100			YES	NO	
112	220KV-SUBHASGRAM(PG)- SUBHASGRAM(WB)-2	30-08-2020	Y_B, Iy: 18:53 kA, Ib: 18.50 kA, 0.6 KM 17:21 (Subhasgram PG)		Y-B FAULT	<100	LA FAILED		YES	NO	
113	400KV-BINAGURI-ALIPURDUAR (PG)-2	30-08-2020	13:33 Y_N, 43.4 KM, 8.348 kA		Y-N FAULT	<100	High secondar arcing observed and A/R failed ,Reactor ringdown observed after 3 pole opening also 3 phase line voltage persisited .		YES	YES	

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114	220KV-CHANDIL-STPS(WBPDCL)-1	30-08-2020	Line charged through TBC tripped during testing in 14:35 Main bay		NO FAULT	NA		NO	NO	
115	220KV-CHANDIL-RANCHI-1	30-08-2020	Tripped along with 14:35 Chandil-Santaldih line		NO FAULT	NA		NO	NO	
116	400KV-MERAMUNDALI- LAPANGA-2	30-08-2020	Lapanga: Z1, Y-N, 10:15 142.5Km, 1.797KA		Y-N FAULT	<100	Secondary arcing observed in dead time as with implementation of additional 80 mvar L/r line became overcompensated . MCB &TCB A/R priorty scheme problem , Reactor ringdown also observed.	NO	NO	OPTCL
117	400KV-KHARAGPUR-KOLAGHAT- 1	30-08-2020		KTPP: B_N, 29.82, 4.808 kA	B-N FAULT	<100		NO	NO	
118	400KV-ALIPURDUAR (PG)- PUNASANGCHUN-1	30-08-2020	z1,15.6 km,B-N,12.28 kA 05:04 at apd	no trip at bhutan	B-N FAULT	<100	Seems from Jigmellin all 3 phase breaker closed after 1.5 seconds	YES	NO	BHUTAN
119	220KV-ALIPURDUAR (PG)- SALAKATI-2	30-08-2020		Y-N,Z2,96.7 KM,AT SALAKATI	Y-N FAULT	<100		NO	NO	
120	400KV-RAJARHAT-FSTPP-1	31-08-2020	Y-B,Z1,A/R LOCKOUT	A/R SUCCESSFUL AT RAJARHAT;Y-N,152 KM FROM RAJARHAT,2.387	Y-N FAULT	<100	A/R successfult at Rajarhat end only.Carrier was sent from Rajarhat still no A/r was observed from Farakka end .Last month tripping same problem was observed from Farakka end as A/R was disabled then it was enabled .What is the problem ?Secondary arcing also observed .	YES	NO	NTPC FSTPP
121	132KV-RANGIT-KURSEONG-1	31-08-2020	04:15 FROM RANGIT	47.96 KM FROM KURSEONG,1.346 Ka ,B- N	B-N FAULT	<160		NO	NO	
122	132KV-RANGPO-GANGTOK-1	31-08-2020	A/R SUCCESSFUL AT	2.588 KA,R-B,IT-6.628 KA,IB=8.597 KA FROM RANGPO	R-B FAULT	<160		YES	YES	

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123	132KV-RANGPO-MELLI-1	31-08-2020		Z1,RYB,2.58 KM FROM RANGPO,IT=1.5 KA,IY=1.83 ka,IB-1.63 KA AT RANGPO		R-Y-B	<160			YES	YES	
124	132KV-MELLI-SILIGURI-1	31-08-2020		67.5 km,R-N,1.61 KA from siliguri		R-N FAULT	<160			NO	NO	
125	132KV-RANGIT-RANGPO-1	31-08-2020	03:08		BACK UP EARTH FAULT AT RANGIT	R-N FAULT	<160			NO	YES	
126	132KV-CHUZACHEN-RANGPO-2	31-08-2020		y-b,z1,3.49 km,iy=3.9	Started phase RYB N Fault Zone - Z1 Fault Distance - 17.4 KM Fault Duration - 54.98 ms Ir - 258.6 A IY - 939.4 A IB - 1.393 kA at chuzachen	Y-B FAULT	<160			YES	YES	
127	132KV-CHUZACHEN-RANGPO-1	31-08-2020		r-y,z1,3.36 km,ir=6.4	Started phase RYBN Fault Zone - Z1 Fault Distance - 12.43 KM Fault Duration - 54.98 ms IR - 1.842 kA IY- 972.4 A IB - 580 A at cgujachen	R-Y FAULT	<160			YES	YES	
128	400KV-ALIPURDUAR (PG)- ЛGMELLING-1	31-08-2020		Y_B_N, IY 1.76 KA, IB 2.23 KA, Z2		Y-B FAULT	500	SOTF and protection issues found at jigmelling end .Fault was in jigmelling mangdechu section .Fault cleared in zone-2 from alipurdwar end .		YES	NO	BHUTAN
129	400KV-ALIPURDUAR (PG)- ЛGMELLING-2	31-08-2020		Y_B_N, IY 1.76 KA, IB 2.23 KA, Z2		Y-B FAULT	500	SOTF and protection issues found at jigmelling end .Fault was in jigmelling mangdechu section .Fault cleared in zone-2 from alipurdwar end .		YES	NO	BHUTAN

130	400KV-MERAMUNDALI- LAPANGA-2	31-08-2020	MMDL: Y-N, Z1, Iy=7.95 10:49 KA,61.6 KM	Lapanga: Y-N, Z1, 137.3 KM,IY=2.86 KA	Y-N FAULT	100	Secondary arcing observed in dead time as with implementation of additional 80 mvar L/r line became overcompensated . MCB &TCB A/R priorty scheme problem , Reactor ringdown also observed.	YES	YES	OPTCL
131	220KV-CHANDIL-STPS(WBPDCL)-		SD-Z1 R-N, FC-2.1 KA							
.01	1	31-08-2020	12:52 FD-64.5 km,		R-N FAULT					