



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/ 551**

**DATE: 04/08/2021**

To,  
As per list enclosed,

**Sub: Notice for 105<sup>th</sup> Protection Coordination sub-Committee (PCC) Meeting of ERPC**

Sir,

Notice is hereby given that **105<sup>th</sup> PCC meeting** of ERPC will be held on **20.08.2021 (Friday)** 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 104<sup>th</sup> Protection sub-Committee Meeting of ERPC.
- 2) Analysis of following grid disturbances of July 2021:
  - Total Power Failure at 220 kV Ronginchu HEP on 14/07/2021 at 11:27 Hrs and on 15/07/2021 at 01:38 Hrs
  - Disturbance at 220 kV Sonenagar (BSPTCL) Substation on 16/07/2021 at 19:04 Hrs and on 31/07/2021 at 12:13 Hrs
  - Disturbance at 220 kV New Town AA-III (WBSETCL) Substation on 14/07/2021 at 11:54 Hrs
  - Total Power Failure at 220 kV Bokaro-B (DVC) Substation on 18/07/2021 at 19:37 Hrs
  - Disturbance at 220 kV Khizisarai (BGCL) Substation on 25/07/2021 at 19:05 Hrs
  - Total Power Failure at 220 kV Rengali HEP(OHPC) on 27/07/2021 at 08:57 Hrs
  - Total Power Failure at 220 kV Parulia (DVC) Substation on 28/07/2021 at 02:26 Hrs
  - Disturbance at 220 kV Darbhanga (BSPTCL) Substation on 28/07/2021 at 07:32 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 **July 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 trippings 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) Bihar State Power Transmission Limited, VidyutBhawan, Bailey Road, Patna-800021	Electrical Supeerintending Engineer (CRITL) Bihar State Power Transmission Limited, VidyutBhawan, 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 <a href="mailto:cgm.onm@optcl.co.in">cgm.onm@optcl.co.in</a>	Sr. General Manager (PPA), Technical Wing, OHPCL, Orissa State Police Housing & Welfare Corpn. 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 VidyutBhavan, 7 <sup>th</sup> Floor, Bidhannagar, Sector-I Salt Lake City, Kolkata-700091(Fax-033-2334-5862)
Dy. Chief Engineer (Testing)/ Sr. Manager (Testing) CESC Ltd.,4, SasiSekhar 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), WBPDCCL, OS Dept. Corporate Office, 3/C, LA 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 <sup>rd</sup> 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., LoknayaKJaiprakashBhawan, (2 <sup>nd</sup> Floor), DakBunglowChawk, 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, TenughatVidyut 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	Shri A.K. Nayak/Shri Sumit S Ghosh Maithon Power Limited, Maithon Office, MA 5 Gogna, Dist. Dhanbad, Jharkhand State, PIN-828207
General Manager (OS), ER-II Power Grid Corporation of India Ltd., J-I-15, Block-EP, Sector-V, Salt Lake, Kolkata-91	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 (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, BhikajiCama Place, New Delhi , 110066	

List of important transmission lines in ER which tripped in JULY-2021												
S.NO	LINE NAME	TRIP DATE	TRIP TIME	Relay Indication LOCAL END	Relay Indication REMOTE END	Reason	Fault Clearance time in	Remarks	LOCAL END UTILITY	REMOTE END UTILITY	Utility to update	Utility Response
1	220KV-BEGUSARAI-KHAGARIA-2	7-1-21	06:25	BEGUSARIA :- NOT TRIP	KHAGARIA:- Z-1, 26.35KM, R-N FAULT, IR= 1.95KA	R-Earth	<100		NO	NO		
2	220KV-KHAGARIA-NEW PURNEA-2	7-1-21	06:25	KHAGARIA:- Z-1, 26.35KM, R-N FAULT, IR= 1.95KA	PURNEA :- NOT TRIP	R-Earth	<100		NO	NO		
3	400KV-RANCHI-RAGHUNATHPUR-3	7-1-21	13:01	Ranchi: R-N fault, FC: 124km, FC: 3.23kA	RTPS : Z-1 Trip, R-ph FC: 8.38KA FD: 50.57KM (32.52%)	R-Earth	<100	At the instance of A/R In circuit 2, line tripped from both ends .Rnad B phase opened first then after 1 second y phase also got opened .No fault as such observed in this circuit.Reason for tripping may be analysed and shared.	NO	YES	DVC/P G-ER-1	
4	400KV-RANCHI-RAGHUNATHPUR-2	7-1-21	13:01	Ranchi: DT Received		R-Earth	<100	Fault in line then at the time of Auto reclsoe .again fault persisting leading to R phase breaker opening immidiately but rest Y and B phases were closed from ranchi end and tripped after 1 second.	NO	YES	DVC/P G-ER-1	

5	400KV-PPSP-BIDHANNAGAR-2	7-1-21	13:34	Bidhannagar- zone 1, 86.3km, 3.3KA, Blue -n. PPSP- zone 1 , blue -n	Bidhannagar- zone 1, 86.3km, 3.3KA, Blue -n.	B-Earth	<100	NO A/R sttempted	NO	YES		
6	400KV-MEERAMUNDALI-MENDHASAL-II	7-1-21	17:25	Meramundali end:-R-E, IR-10.35 KA, DIST= 20.1		R-Earth	<100	A/R unsuccessful at Mendhasal	NO	YES		
7	220KV-KHAGARIA-NEW PURNEA-1	7-2-21	19:56	NEW PURNEA: A/R SUCCESSFUL, R-N, 4.6KA, 40KM	FAULT - R_N , FD- 63.24km , FC - 1.207kA	R-Earth	200		NO	NO		
8	400KV-NEW DUBURI-MEERAMUNDALI-2	7-2-21	17:41	MEERAMUNDALI: R-N, FC- 14.18KA ;	R-N, 2.9KA, 84KM	R-Earth	<100		YES	NO		
10	220KV-CHANDIL-STPS(WBPDCL)-1	7-3-21	15:10	chandil:- Z-1, 60.2KM, IR-3.21KA, IB-3.65KA, R-B FAULT	STPS: RB, Z1, Ir: 3.71KA, Ib: 3.94KA, 51.6km	R-B-Earth	<100		YES	YES		
11	400KV-NEW PURNEA-MUZAFFARPUR-1	7-3-21	15:06	NPRN-R-PH, 135KM, 3.22KA, A/R UNSUCCESSFUL	127KM, 3.08KA, A/R UNSUCCESSFUL	R-Earth	<100	A/R successful tripped in reclaim time.	NO	NO		
12	400KV-PUSAULI(PG)-DALTONGANJ-2	7-4-21	18:18	SASARAM END RELAY INDICATION: Y-N FAULT; FC: 7.7KA; 28 KM FROM SASARAM	Daltongunj: Y-N, 1.8kA, 162km	Y-Earth	<100	A/R Unsuccessful. Charging attempted at 19:02 hrs from Pusauli end but line didn't hold.	YES	YES		
14	220KV-BIHARSARIFF-TTPS-1	7-6-21	12:35		Tenughat: Z1, 126.8 kM, Ia 254 A IB 280.5 A IC 370.7 A	B-Earth	<100	NO A/R attempted	YES	NO	JUSNL	
15	220KV-KHAGARIA-NEW PURNEA-1	7-6-21	11:24	NEW PURNEA - FAULT - B_N , FD - 43.4 KM , FC - 3.14 KA (A/R , SUCCESSFUL )	TRIP FROM KHAGARIA SIDE - B_N , FD- 74.12 KM , FC - 1.042 KA	B-Earth	<100		NO	NO		
18	220KV-SILIGURI-KISHANGANJ(PG)-1	7-6-21	03:40	Siliguri: R-B, 93.85km, Ir-2.18kA, Ib-1.939kA,	kishangunj: R-B, 18.2km, Ir-9.22kA, Ib-6.65kA;	R-B-Earth	<100		YES	NO		

19	400KV-SUBHASGRAM(PG)-RAJARHAT-1	7-7-21	14:50	S'gram- Z1 B-N FC-9.2 kA FD-9.3 km		B-Earth	<100	At the instant of fault obly B phase opened but no A/R occurred hence after 1.5 sec all 3 poles opened due to suspected PD operation.	YES	YES	PG-ER-2
20	220KV-BUDHIPADAR-RAIGARH-1	7-7-21	12:06	Budhipadar end-Z1 B-N, FC-4.09 kA FD-11.9 km, Raigarh end Z2 B-N FD=69.2 km	Raigarh end Z2 B-N FD= 69.2 km	B-Earth	<100		YES	NO	
21	400KV-TSTPP-ROURKELA-1	7-7-21	17:03	TSTPP-Z1 Y-N FC-5 kA FD-69.97 km;	Rourkela- A/R successful, Y-N, Z1, 3.60kA, 97.595 km	Y-Earth	<100	A/R successful at ROURKELA end only.	NO	YES	NTPC TALCHER
22	220KV-JAMSHEDPUR-JINDAL-1	7-12-21	12:07	JAMSHEDPUR (DVC)-R-N, Z1, FD- 34KM, FC-2.7KA;	JINDAL:R-N, 1.2KA, 111KM	R-Earth	<160		NO	NO	
23	400KV-PPSP-BIDHANNAGAR-2	16/07/2021	23:28	PPSP end: Rph, Z1, 58.8km	Bidhannagar end: Rph, Z1, 124.4km, 2.68kA	R-Earth	<100		NO	NO	
24	400KV-JEERAT-SAGARDIGHI-1	16/07/2021	13:19	11.79 kA	181.9 KM, Z III, 2.081 kA	R-Earth	<100	A/R unsuccessful as per PMU	NO	YES	
25	220KV-PUSAULI-DEHRI-1	16/07/2021	11:53	Pusauli: Y_N, 38.29 KM, 3.44 kA	Dehri: Y_N, 19.82 KM, 2.97 kA	Y-Earth	<100	PD operated at sasaram end ,due to non A/R while at Dehri end it seems 3 phase A/R attempted	NO	YES	PG-ER-1,BSPTCL
26	220KV-KHAGARIA-NEW PURNEA-2	16/07/2021	12:03		New Purnea: B_N, 61.1 KM, 2.771 kA	B-Earth	<100	Multiple faults.	YES	NO	
27	220KV-KHAGARIA-NEW PURNEA-2	17/07/2021	04:04	Phase Zone-1 Ir: 2.11kA, Distance: 17.2km	PURNEA:- A/R OPERATED	R-Earth	<100		NO	NO	
28	400KV-MEDINIPUR-NEW CHANDITALA-2	18/07/2021	22:30	Medinipur: R_B_N, 73.8 KM, Ir: 3.989 kA, Ib: 4.620 kA	New Chanditala: R_B_N, 17.24 KM, Ir: 12.14 kA, Ib: 11.53 kA	R-B-Earth	<100		NO	NO	

29	220KV-DARBHANGA (DMTCL)-SAMASTIPUR-1	18/07/2021	11:08	FC: 6.102 KA, FD: 26.29 km	YB Fault, Z1, FC: 5.9 KA, FD: 17.9 km	Y-B-Earth	<100		NO	NO		
30	400KV-GAYA-KODERMA-2	19-07-2021	14:53	GAYA: 126.5km, 2.92KA, R-N	KODERMA:- LIGHTING ARRESTER BLAST	R-Earth	<100	A/R unsuccessful at GAYA end	YES	NO		
31	220KV-CHANDIL-RANCHI-1	19-07-2021	13:45	CHANDIL:= R-Y FAULT, 75.5KM, IB= 0.17KA, IR=2.57KA, IY= 2.35KA,	RANCHI:- R-Y FAULT, 15.9KM, IR=7.92KA, IY= 6.41KA.	R-Y-Earth	<100		YES	YES		
32	400KV-NEW DUBURI-MEERAMUNDALI-1	22-07-2021	12:32	New Duburi: R_N, 5.25 kA, 39.1 KM.	A/r successful from Meeramundali only	R-Earth	<100	3 Phase tripping from New Dubri end directly	NO	YES		OPTCL
33	220KV-TENUGHAT-BIHARSARIF-1	23-07-2021	17:38	BIHARSARIF: B-N, Fc= 1.908 kA, z-1, Fd= 89.95 km	B-N, Z-1, 72.77 km, 1.93 kA	B-Earth	<100	No A/r operation.3 phase tripping from TTPS end .	NO	YES		BSPTCL
34	220KV-DARBHANGA (DMTCL)-MOTIPUR-2	24-07-2021	12:32	Darbhanga: Y_B_N, Iy: 1.76 kA, Ib: 1.74 kA, 101 KM	Y_B_N, FD - 7.227 KM	Y-B-Earth	<100		NO	YES		
35	220KV-GAYA-KHIZERSARAI-1	25-07-2021	19:05	GAYA: 56.2 KM(100%), Y-N, 2.04KA, A/R SUCCESSFUL		Y-Earth	<100		NO	NO		
36	220KV-BEGUSARAI-NEW PURNEA-1	25-07-2021	22:27	New Purnea: Y_N, 83.2 KM, 2.26 kA,	A/r successful from New Purnea only	Y-Earth	<100		NO	YES		
37	220KV-DARBHANGA(DMTCL)-LAUKAHI-2	26-07-2021	14:26	DRABHANGA (DMTCL): R-N, Z1, 70KM, 2.8KA;	LAUKAHI: R-N, 24.38KM, 3KA	R-Earth	<100		NO	NO		
39	220KV-TASHIDING-RANGPO-1	27-07-2021	23:17	Rangpo: Y-B, Fd= 33.1 km, Iy= 5.8 kA, Ib= 5.4 kA		Y-B-Earth	<100	Same fault distance with Phase to phase fault of same nature Y phase fault first converted to YB .	NO	YES		TASHDING

41	400KV-BARH-PATNA-4	28-07-2021	15:57	BARH: R-N, Z2, 69KM, 6.25KA; PATNA: R-N, Z1, 20KM, 11.9KA		R-Earth	<100	At the time of A/R delayed clearance observed from Barh end .From Patna end Carrier was sent still delayed clearance was observed at the time of A/R..	NO	YES	NTPC BARH	
42	400KV-NEW PURNEA- BIHARSARIFF(PG)-1	30-07-2021	11:13	Purnea end: Y-B fault, FD=25.74km, FC=14.67 kA.	Biharsharif end: Y- B fault, FD=195.4km, FC=3.57kA.	Y-B- Earth	<100		YES	YES		
43	220KV-MAITHON-DHANBAD-2	30-07-2021	10:38	Dhanbad: B_N, Z I, 4.24 kA	.Tripped from Dhanbad only	B-Earth	<100		NO	NO		
44	220KV-MAITHON-DHANBAD-1	30-07-2021	10:32	Maithon: B_N, 55.3 KM, Z II, 3.23 kA	Dhanbad: B_N, 12.8 KM, 4.25 kA	B-Earth	<100		NO	NO		