



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
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NO. ERPC/PROTECTION/2016-17/

DATE: 05.04.2017

FAX MESSAGE NO. -

To,

As per list enclosed.

Sub: Notice for 54th Protection Coordination sub-Committee (PCC) meeting of ERPC

Notice is hereby given that **54th PCC meeting** of ERPC will be held on **20th April 2017 (Thursday)** at 11: 00 hrs at **ERPC Conference Room, Kolkata.**

The tentative agenda items for discussion will be as follows:

- 1) Confirmation of the minutes of 53rd Protection sub-Committee Meeting of ERPC
- 2) Follow-up action on decision of previous Protection sub-Committee Meetings
- 3) Analysis of following grid disturbances of March, 2017:
 - Disturbance at 400/220 kV Biharsharff S/s on 03-03-17 at 13:25 hrs.
 - Disturbance at 400/220 kV Biharsharff S/s on 04-03-17 at 13:21 hrs.
 - Disturbance at 400kV Vedanta S/s on 17-03-17 at 10:22 Hrs.
 - Disturbance at 400kV Bakreswar S/s on 29-03-17 at 09:32 Hrs.
 - Disturbance at 220kV Arrah S/s on 30-03-17 at 13:55 Hrs.
- 4) Multiple elements tripping without load loss:
 - Disturbance at 400 kV RTPS (DVC) S/s on 30-03-17 at 11:54 Hrs.
- 5) Single line tripping incidences as per list enclosed at **Annexure-I.**

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.

Your participation in the meeting is highly solicited. Please confirm your participation in the meeting along with name and designation of the participants.

Yours faithfully,

-sd-
(A. K. Bandyopadhyaya)
Member Secretary

LIST OF ADDRESSES:

Chief Engineer, Trans (O&M) Bihar State Electricity Board, Vidyut Bhawan, Bailey Road, Patna-800021	Electrical Superintending Engineer (CRITL) Bihar State Electricity Board, Vidyut Bhawan, Bailey Road, Patna-800021
Chief Engineer (SLDC) Damodar Valley Corporation, GOMD-I Premises, P.O.- Danesh Seikh Lane, Howrah- 711109	Chief Engineer (CTC) Damodar Valley Corporation, P.O. Maithon Dam, Dist. Dhanbad, Jharkhand-828207
Chief Engineer, Trans (O&M) Jharkhand State Electricity Board Kusai Colony, Doranda, Ranchi-834002	Electrical Superintending Engineer (CLD) Jharkhand State Electricity Board, 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 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 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	Director (GM Division) Central Electricity Authority Sewa Bhawan, R. K. Puram, New Delhi-110066
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
General Manager, ERLDC, POSOCO 14, Golf Club Road, Tollygunge, Kolkata-700033	Manager (Electrical), Adhunik Power & Natural Resources Ltd. “Lansdowne Towers, Kolkata-700020 (Fax No. 033-2289 0285)
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	Vice President, Vedanta Ltd. 1 st Floor, Module C/2, Fortune Tower, C S Pur, Bhubaneswar- 751023
Managing Director, Bhutan Power Corporation Post Box no. 580, Thimpu, Bhutan.	Managing Director, Druk Green Power Corpn. P.O. Box-1351, Thimpu, Bhutan.
ASSISTANT SECRETARY, ERPC	

Annexure-I

S.NO	LINE NAME	TRIP DATE	TRIP TIME	RESTORATION DATE	RESTORATION TIME	Reason	Fault Clearance time in msec	Relay Indication LOCAL END	Relay Indication REMOTE END	Auto Recloser status	DR/EL received within 24 Hrs	DR/EL received after 24 Hrs	Remarks
Fault clearing time is violating protection standard (As per PMU data)													
1	400 KV BINAGURI - MALBASE	17.03.17	19:05	17.03.17	19:30	B-N FAULT	500 ms approx.	B-N, Z-II, F/C 2.73 kA, 97.54 km from Binaguri	Yet to be received	No autoreclose operation observed in PMU data	No	No	
2	400 KV STERLITE-MERAMUNDALI	28.03.17	13:08	28.03.17	14:02	B-N FAULT	160 ms approx	B-N, Z-I, 127.5 KM from SEL, f/c: 1.75 kA	B-N, Z-I, 121.2 KM from MMND, F/C 2.6 kA	No autoreclose operation observed in PMU data	No	No	
3	400 KV BAKERSWAR -ARAMBAG	29.03.16	09:32	29.03.17	13:20	LBB OPERATED AT BUS - I AT BAKRESWAR DURING EMERGENCY S/D OF 400 KV MAIN BREAKER OF GT - II DUE TO LOW OIL PRESSURE	500 ms approx.	Yet to be received	Yet to be received	--	No	No	400/220 IBT - II at Arambag tripped during the incident. On 13-02-17 at 09:55 hrs. LBB operated at Bakreswar Bus - I due to mal-operation. At that time, all elements at 220 kV level tripped as 220 kV bus - II was under s/d.
Multiple tripping at same time													
1	220 kV RAMCHANDRAPUR - CHANDIL S/C	10.03.17	15:01	10.03.17	15:37	B-N FAULT	<100	B-N, Z-I, O/C, 16.5 km from Ramchandrapur, F/C 2.32 kA	B-N, Z-I, 31.79 km from Chandil, F/C 2.825 kA	No autoreclose operation observed in PMU data	Yes	Yes	400/220 kV ICT - I & II along with Bus coupler (due to Non directional O/C & E/F) tripped from 220 kV side due to VAJ operation
2	220KV RANGPO - NEW MELLI - I	27.03.17	17:01	28.03.17	12:47	R-Y FAULT	350 ms approx	R-Y , Z-I, F/C - 9.3 KA, 1.2 Km from Rangpo	Yet to be received	No autoreclose operation observed in PMU data	No	No	132 kV Rangpo Gangtok S/C tripped at same time (R-B, Z-I, 0.73 km from Rangpo, F/C 5.3 kA). Charging attempted for 220 kV Rangpo - New Melli S/C at 20:30hrs but line did not hold
3	400KV BIHARSARIF-SASARAM-II	30.03.17	13:51	30.03.17	16:02	O/V TRIPPED	--	Yet to be received	Yet to be received	--	No	No	
4	HVDC SASARAM			30.03.17	16:52	CONVERTOR CONTROL PROTECTION OPERATED	--	Yet to be received	Yet to be received	--	No	No	
Fault Not observed in PMU data													
1	400KV ANGUL-JITPL-I	07.03.17	22:55	08.03.17	09:05	SPURIOUS TRIPPING	--	DT received	Did not trip	--	Yes	--	
2	400KV JEERAT - BAKRESWAR	13.03.17	03:48	13.03.17	04:22	SPURIOUS TRIPPING	--	DT Received	Did not trip	--	No	--	
3	400KV TALA - BINAGURI-II	21.03.17	22:42	21.03.17	23:31	SPURIOUS TRIPPING	--	Did not trip	Yet to be received		--	No	
4	765 KV GAYA-BALIA S/C	24.03.17	13:25	24.03.17	13:50	SPURIOUS TRIPPING	--	DT received	Yet to be received	--	No	No	
5	400 KV FARAKKA-KAHALGAON-I	25.03.17	09:40	25.03.17	10:30	SPURIOUS TRIPPING	--	Yet to be received	DT received	--	No	No	

S.NO	LINE NAME	TRIP DATE	TRIP TIME	RESTORATION DATE	RESTORATION TIME	Reason	Fault Clearance time in msec	Relay Indication LOCAL END	Relay Indication REMOTE END	Auto Recloser status	DR/EL received within 24 Hrs	DR/EL received after 24 Hrs	Remarks
No autorecloser operation observed in PMU data													
1	400KV BARIPADA-KEONJHOR	05.03.17	16:34	06.03.17	10:27	B-N FAULT	<100	B-N, Z-I, F/C 1.34 KA, 2.104 km from Baripada, A/R unsuccessful due to DT received	B-N, Z-I, DT sent due to O/V in R & Y phases	No autoreclose operation observed in PMU data	No	No	B phase insulator puncher at LOC no. 48 (2.10km from Baripada), A/R started at Baripada end but failed due to DT receipt
2	400KV NEW PURNEA-KISHANGUNJ -I	10.03.17	03:11	10.03.17	03:41	B-N FAULT	<100	Yet to be received	Yet to be received	No autoreclose operation observed in PMU data	No	No	
3	400KV NEW PURNEA-MUZZAFFARPUR-I	10.03.17	06:15	10.03.17	06:37	B-N FAULT	<100	Yet to be received	Yet to be received	No autoreclose operation observed in PMU data	No	No	
4	400KV CHAIBASA-ROURKELA-I	10.03.17	13:24	10.03.17	14:03	Y-N FAULT	<100	Y-N, Z-I, F/C 2.61KA, 99 KM from Chaibasa	Y-N, Z-I, Carrier received, F/C 3.2 kA, O/V start	No autoreclose operation observed in PMU data	No	Yes	
5	400KV KOLAGHAT-KHARAGPUR-I	10.03.17	14:27	10.03.17	15:37	B-N FAULT	<100	B-N, Z-I, F/C 5.764 kA, 33.67 km from KTPP, A/R started but after 80 ms it got blocked	B-N, Z-I, Carrier received, DT received, 65.59 km from KGP, F/C 1.776kA	No autoreclose operation observed in PMU data	Yes	No	Reason for blocking of A/R at KTPP end may be explained
6	400 KV BARH - KAHALGAON -I	26.03.17	21:06	26.03.17	22:40	Y-N FAULT	<100	Y-N, Z-I, 4.78 km from Barh, F/C - 21 kA	A/R successful	No autoreclose operation observed in PMU data	No	No	Successful at KhSTPP end
7	400KV ANDAL-JAMSHEDPUR-I	27.03.17	19:35	28.03.17	20:47	R-N FAULT	<100	Yet to be received	Yet to be received	No autoreclose operation observed in PMU data	No	No	Line was under s/d. during charging attempt, line tripped again due to CB problem at Jamshedpur.
8	400KV ANDAL - RTPS-I	28.03.17	13:57	28.03.17	14:43	B-N FAULT	<100	B-N, 78.2 km from Andar, Carrier Received	B-N, Z-I, 13.4km from RTPS	No autoreclose operation observed in PMU data	No	No	
9	400 KV ALIPURDUAR - BONGAIGAON -I	30.03.17	11:20	30.03.17	12:11	Y-N FAULT	<100	Y-N, F/C 1.75 kA	Y-N, F/C 1.37 kA, 92 km from Bongaigaon, A/R successful	No autoreclose operation observed in PMU data	No	No	Successful at Bongaigaon end