



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



Tel No.:033-24235199, 24235005 FAX No.:033-24221802, 24221358 Web: [www.erpc.gov.in](http://www.erpc.gov.in)

**NO. ERPC/PROTECTION/2016-17/**

**DATE: 05.07.2017**

**FAX MESSAGE NO. -**

To,

As per list enclosed.

**Sub: Notice for 57<sup>th</sup> Protection Coordination sub-Committee (PCC) meeting of ERPC**

Notice is hereby given that **57<sup>th</sup> PCC meeting** of ERPC will be held on **25th July 2017 (Tuesday)** 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 56<sup>th</sup> 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 June, 2017:
  - Disturbance at 132 kV Jamui S/s (BSPTCL) on 04-06-17 at 17:28 hrs.
  - Disturbance at CTPS A S/s (DVC) on 05-06-17 at 00:05 hrs
  - Disturbance at 220 kV Hatia, Biharsharif and Fatua S/s on 05-06-17 at 20:27 hrs
  - Tripping of 400kV Teesta III – Rangpo line on 06-06-17 at 03:27 hrs, on 17-06-17 at 16:14 hrs and on 24-06-15 at 15:49 hrs.
  - Disturbance at PTPS (JUSNL) on 06-06-17 at 14:05hrs.
  - Disturbance at 220 kV Hazipur (BSPTCL) on 11-06-17 at 11:39hrs.
  - Disturbance at 220 kV Fatua S/s (BSPTCL) on 15-06-17 at 06:23 hrs
  - Disturbance at 132 kV Arrah S/s (BSPTCL) on 18-06-17 at 06:15 hrs and on 24-06-17 at 14:25 hrs
  - Disturbance at 220 kV Birpara S/s (PGCIL) on 18-06-17 at 22:37 hrs
  - Disturbance at 132 kV Purnea S/s (PGCIL) on 18-06-17 at 13:42 hrs
  - Tripping of 220 KV Muzaffarpur-Hazipur-D/C line on 19-06-17 at 14:35 hrs
  - Disturbance at 220 kV Hazipur (BSPTCL) on 23-06-17 at 19:20hrs.
  - Disturbance at 220 kV NandokharS/s (BSPTCL) on 28-06-17 at 15:02 hrs and 15:52 hrs.
- 4) Multiple elements tripping without load loss:
  - Disturbance at RTPS (DVC) on 01-06-17 at 22:00 hrs
  - Disturbance at 220 kV Tarkera S/s (OPTCL) on 06-06-17 at 16:30 hrs
  - Disturbance at 765 kV Dharmajaygarh S/s on 15-06-17 at 14:23 hrs
  - Disturbance at 400 kV Meramundali S/s on 15-06-17 at 15:53 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 <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, 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 <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., Loknayak Jaiprakash Bhawan, (2 <sup>nd</sup> Floor), Dak Bungalow 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 <sup>st</sup> 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.
Darbhangha(Bihar), Darbhanga Motihari Transmission Company Limited (DMTCL)	Head Construction, ENCIL, Siliguri-7340051

S.NO	LINE NAME	TRIP DATE	TRIP TIME	RESTORATION DATE	RESTORATION TIME	Relay Indication LOCAL END	Relay Indication REMOTE END	Reason	Fault Clearance time in msec	Auto Recloser status	DR/EL received within 24 Hrs	DR/EL received after 24 Hrs	Remarks
<b>Fault clearing time is violating protection standard (As per PMU data)</b>													
1	<a href="#">220KV JODA-RAMCHANDRAPUR-I</a>	6/9/2017	10:25	6/9/2017	11:37	Did not trip	Y-B, O/C, E/F	Y-B-N FAULT	500 ms approx	No autoreclose operation observed in PMU data	--	No	
2	<a href="#">400KV RANCHI-RAGHUNATHPUR-II</a>	6/11/2017	12:03	6/11/2017	13:06	--	B-N, Z-II, F/C 2.92 KA, 150.76 km from RTPS	B-N FAULT	600 ms approx	No autoreclose operation observed in PMU data	No	No	
3	<a href="#">220KV RENGALI(GRIDCO)-RENGALI(PG-II)</a>	6/12/2017	17:23	6/13/2017	10:14	Y-B FAULT	Yet to be received	Y-B-N FAULT	500 ms approx	--	No	No	
4	<a href="#">220KV FSTPP-LALMATIA-I</a>	6/16/2017	11:35	6/16/2017	12:04	Z1, Y-N Fault from Farraka end	Yet to be received	Y-N FAULT	350 ms	No autoreclose operation observed in PMU data	No	No	
5	<a href="#">400KV RANCHI-SIPAT-II</a>	6/19/2017	17:34	6/19/2017	17:43	Y-N, 2.6kA, 284.5 KM	Yet to be received	Y-N FAULT	300 ms approx	No autoreclose operation observed in PMU data	No	No	
6	<a href="#">400KV RANCHI-RAGHUNATHPUR-III</a>	6/19/2017	21:10	6/19/2017	23:34	Yet to be received	B-N, Z-II	B-N FAULT	600 ms approx	No autoreclose operation observed in PMU data	No	No	Antitheft charged portion from Ranchi tripped
7	<a href="#">400KV DARBHANGA (DMTCL)-MUZAFFARPUR-II</a>	6/30/2017	17:37	6/30/2017	18:25	B-N, Z-II, 52.1 km from DMTCL, Fault clearing time >400 ms	Yet to be received	B-N FAULT	400 ms approx	No autoreclose operation observed in PMU data	Yes	No	
<b>Multiple tripping at same time</b>													
1	<a href="#">220KV MUZAFFARPUR(PG)-MUZAFFARPUR(BSEB)-I</a>	6/20/2017	8:40	6/20/2017	9:20	R-Y-N, IR-2.5KA, IY-1.93KA, Distance: 31.6KM from Muz(PG)	Yet to be received	R-Y FAULT	<100	--	No	No	
2	<a href="#">220KV MUZAFFARPUR(PG)-MUZAFFARPUR(BSEB)-II</a>			6/20/2017	9:22	R-Y-N, IR-2.28KA, IY-4.74KA, Distance: 31KM from Muz(PG)	Yet to be received	R-Y FAULT	<100	--	No	No	
3	<a href="#">220KV CHANDIL-RANCHI-I</a>	6/20/2017	17:12	6/20/2017	17:49	Yet to be received	Y-N , 6.3 KA, 16 KM	Y-N FAULT	<100	--	No	No	
4	<a href="#">400KV RANCHI-SIPAT-II</a>			6/20/2017	20:47	Y-B , 4 KA each , 137 KM	Yet to be received	Y-B-N FAULT	<100	--	No	No	

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5	<a href="#">400KV PUSAULI-NABINAGAR-II</a>	6/22/2017	13:53	6/22/2017	15:58	Y-N 2.4 KA at Pusauli	Yet to be received	Y-N FAULT	<100	No autoreclose operation observed in PMU data	No	No	
6	<a href="#">400KV PUSAULI-NABINAGAR-I</a>			6/22/2017	15:07	Yet to be received	Yet to be received	Y-N FAULT	<100	No autoreclose operation observed in PMU data	No	No	
7	<a href="#">400KV GAYA-KODERMA-I</a>	6/30/2017	20:18	6/30/2017	21:12	Y-N. F/C 2.7 kA, 121 km from Gaya	Yet to be received	Y-N FAULT	<100	No autoreclose operation observed in PMU data	No	No	
8	<a href="#">400KV GAYA-KODERMA-II</a>			6/30/2017	21:13	Y-N	Y-N, 2.7 kA, 126.5 km from Gaya	Y-N FAULT	<100	No autoreclose operation observed in PMU data	No	No	
<b>Fault Not observed in PMU data</b>													
1	<a href="#">220KV MUZAFFARPUR-HAJIPUR-I</a>	6/2/2017	16:10	6/2/2017	17:25	Yet to be received	CB Auto tripped	SPURIOUS TRIPPING	--	--	No	No	
2	<a href="#">400KV KHARAGPUR-CHAIBASA-II</a>	6/2/2017	21:03	6/2/2017	22:12	DT Received	PRV OPERATED FOR L/R	MALOPERATION OF PRV OF L/R AT CHAIBASA END	--	--	No	--	.evt file received from KGP end
3	<a href="#">400KV KHARAGPUR-CHAIBASA-I</a>	6/3/2017	10:20	6/3/2017	11:03	DT Received	PRV OPERATED FOR L/R	MALOPERATION OF PRV OF L/R AT CHAIBASA END	--	--	No	--	.evt file received from KGP end
4	<a href="#">400KV JAMSHEDPUR-ANDAL-II</a>	6/4/2017	23:12	6/4/2017	23:53	Did not trip	Master trip relay operated	SPURIOUS TRIPPING	--	--	No	No	
5	<a href="#">400KV PPSF-NEW RANCHI S/C</a>	6/15/2017	14:23	6/15/2017	15:17	Yet to be received	Did not trip	SPURIOUS TRIPPING	--	--	--	No	Voltage unbalance has been observed at the time of the disturbance
6	<a href="#">400KV IBEUL-JHARSUGUDA-I</a>	6/22/2017	12:26	6/22/2017	19:27	DT Received	Yet to be received	DT RECEIVED AT IBEUL	--	--	No	No	
<b>No autorecloser operation observed in PMU data</b>													
1	<a href="#">400KV RANCHI-RAGHUNATHPUR-II</a>	6/1/2017	16:14	6/1/2017	18:41	Yet to be received	Yet to be received	R-N FAULT	<100	No autoreclose operation observed in PMU data	No	No	
2	<a href="#">400KV FSTPP-GOKARNO-I</a>	6/5/2017	12:44	6/5/2017	14:29	R-N, 3.8 kA, Z-II, A/R started, but three pole opened due to operation of O/V stage - II (R phase vol = 390 kV)	R-N, Z-I, 15.26 km from Gokarno, F/C 5.78 kA, A/R started but three pole opened on DT receipt	R-N FAULT	--	--	Yes	Yes	
3	<a href="#">400KV JEERAT-BAKRESWAR-I</a>	6/5/2017	12:53	6/5/2017	13:09	Y-N, Z-I, 117 km from Jeerat, A/R successful at Jeerat end	Y-N, Z-I, 24 km from BKTPP, A/R blocked at Bakreswar end due to low oil pressure	Y-N FAULT	<100	No autoreclose operation observed in PMU data	No	No	A/R blocked at Bakreswar end due to low oil pressure (Tripped on Pole discrepancy)
4	<a href="#">400KV MEERAMUNDALI-STERLITE-I</a>	6/6/2017	18:57	6/6/2017	19:55	Y-N, 138 km from Meeramandali, 1.82 kA	Y-N, F/C 1.9 kA, Z-I at SEL, A/R not attempted	Y-N FAULT	<100	No autoreclose operation observed in PMU data	No	Yes	
5	<a href="#">220KV BIRPARA-MALBASE-I</a>	6/7/2017	18:10	6/7/2017	21:36	DEF	Yet to be received	R-N FAULT	<100	No autoreclose operation observed in PMU data	No	No	
6	<a href="#">220KV DARBHANGA (DMTCL)-MOTIPUR-II</a>	6/8/2017	18:12	6/9/2017	19:49	Z-I	Yet to be received	R-N FAULT	<100	No autoreclose operation observed in PMU data	No	No	
7	<a href="#">400KV FSTPP-KHSTPP-IV</a>	6/9/2017	12:55	6/9/2017	13:07	Y-N, Z-I, A/R successful at Farakka end	Y-N, Z-I, 23 km from KhSTPP end, F/C - 11 kA	Y-N FAULT	<100	No autoreclose operation observed in PMU data	No	No	
8	<a href="#">220KV NEW PURNEA-MADHEPURA-II</a>	6/9/2017	13:20	6/9/2017	13:38	B_N;A/R SUCCESSFUL;15.8 KM	TRIPPED FROM MADHEPURA END;B_N;16.3 KM	B-N FAULT	<100	No autoreclose operation observed in PMU data	No	No	

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9	<a href="#">400KV RANCHI-RAGHUNATHPUR-II</a>	6/11/2017	16:10	6/11/2017	18:13	--	R-N, Z-I, 25.41 km from RTPS, 10.369 kA	B-N FAULT	<100	No autoreclose operation observed in PMU data	No	No	
10	<a href="#">400KV GMR-ANGUL-I</a>	6/15/2017	16:30	6/15/2017	17:01	IR- 9574.5A,IY-1522 A,IB-1179 A, VR = 42 kV, I0 = 13.506 kA, Z-I, 4.4 km from GMR, DT sent	DT received	R-N FAULT	<100	No autoreclose operation observed in PMU data	Yes	No	Z-I operated in all three phases at GMR end resulting A/R block
11	<a href="#">400KV ARAMBAGH-BAKRESWAR-I</a>	6/19/2017	19:52	6/19/2017	20:34	B-N, F/C - 13.5 KA, 25.8 KM from Arambag	B-N, F/C 2.01 KA, 106.7 KM from Bakreswar	B-N FAULT	<100	No autoreclose operation observed in PMU data	No	No	
12	<a href="#">400KV MAITHON-MEJIA-I</a>	6/20/2017	4:50	6/20/2017	5:19	R-N, Z-I, 12.8 KA, 17.51 km from Maithon	Did not trip	R-N FAULT	<100	No autoreclose operation observed in PMU data	Yes	No	
13	<a href="#">400KV MAITHON-khSTPP-I</a>	6/20/2017	7:54	6/20/2017	8:25	R-N, Z-I, 7.8 kA	Did not trip	B-N FAULT	<100	No autoreclose operation observed in PMU data	Yes	No	
14	<a href="#">400KV RENGALI-KEONJHOR-I</a>	6/20/2017	21:55	6/20/2017	22:32	Rengali-Y_N,F.C.5.31 kA , F.D. 58.48 KM	Keonjhar-Y_N, F.C. 2.31 kA, F.D. 42 KM	Y-N FAULT	<100	No autoreclose operation observed in PMU data	No	No	
15	<a href="#">400KV MUZAFFARPUR(PG)-BIHARSARIF-I</a>	6/30/2017	17:31	6/30/2017	21:29	Yet to be received	Y-N, 2.73 kA, Z-I, 135 km from BSF	Y-N FAULT	<100	No autoreclose operation observed in PMU data	No	No	