



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/2018/**

**DATE: 07.05.2018**

**FAX MESSAGE NO. - 186**

To,

As per list enclosed.

**Sub: Notice for 67<sup>th</sup> Protection Coordination sub-Committee (PCC) meeting of ERPC**

Notice is hereby given that **67<sup>th</sup> PCC meeting** of ERPC will be held on **22<sup>nd</sup> May 2018 (Tuesday)** at 10: 30 hrs at **ERPC Conference Room, Kolkata.**

The tentative agenda items for discussion will be as follows:

- 1) Confirmation of the minutes of 66<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 April, 2018:

SI No	Date	Time	Affected System	Summary	Load loss (MW)	Gen loss (MW)	Fault duration (As Per PMU)
1	07-04-2018	09:56	DMTCL	At 09:48 hrs 400 KV Motihari – Gorakhpur I and II tripped on Y-N and B-N fault respectively. Thereafter tripping of 400 kV Motihari – Barh D/C at 09:56 hrs on R-Y-B fault resulted in total power failure at 400/132 kV Motihari S/S and other radially connected areas (Birganj, Surajpura, Parwanipur in Nepal; Ramnagar, Betiah, Raxaul, Motihari, Dhaka in Bihar).	160	0	500 ms
2	07-04-2018	17:20	ER-II	220 kV Maithon - Dhanbad D/C, 220 kV Maithon - Kalyaneswari D/C and 220 kV Maithon - Dumka - II along with 220 kV B/C bay at 400/220kV Maithon S/s tripped due to operation of Bus Bar protection.	0	0	<100

Sl No	Date	Time	Affected System	Summary	Load loss (MW)	Gen loss (MW)	Fault duration (As Per PMU)
3	11-04-2018	20:10	DVC	At 19:40 hrs 220 kV Maithon – Dhanbad - I tripped on B-N fault. At 20:15 hrs 220 kV Kalyaneswari – CTPS – I tripped due to jumper snapping (suspected) and at 20:18 hrs 220 kV Kalyaneswari – CTPS – II tripped on overload. At the same time, 220 kV Joda – Jindal S/C line tripped from Joda end resulting load loss at radially fed area i.e. Jamshedpur (DVC) through 220 kV Joda – Jindal – Jamshedpur section.	700	0	<100
4	15-04-2018	06:43	ISTS	At 06:43 hrs, 220 kV Tashiding Rangpo S/C and 220 kV Tashiding New Melli S/C tripped on Y-N fault resulting in tripping of running unit at Tashiding due to loss of evacuation path. At the same time 220 kV Jorethang New Melli - I tripped from Jorethang end.	0	50	<100
5	17-04-2018	10:37	CESC	At 10:37 hrs, 220 kV Subhasgram - EMSS D/C tripped due to operation of line differential relay at EMSS end (R phase for Circuit II and B phase for Circuit I) resulting load loss at radially connected loads i.e. New Cossipore, Kasba, Dum Dum and B/T road.	500	0	<100
6	30-04-2018	05:48	BSPTCL	At 05:48 hrs 220 kV Purnea - Madhepura I tripped on B-N fault causing load loss at Madhepura, Supaul and Lahan (Nepal).	60	0	<100
7	07-04-2018	18:25	DMTCL	At 18:25 hrs, 400/132 kV ICT - II at Motihari tripped due to overload protection resulting total power failure at 132 kV side bus and nearby area. 400 kV side of the Motihari was remained charged through 400 kV Barh - Motihari D/C. Power supply to Nepal also got interrupted due to this incident.	177	0	<100
8	20-04-2018	10:35	BSPTCL	At 10:35 hrs 132 kV KhSTPP - Lalmatia S/C and 132 kV Kahalgaon (BSPTCL) - Lalmatia S/C tripped from Lalmatia resulting load loss at Sahebgunj	30	0	No fault has been observed
9	21-04-2018	21:30	DMTCL	132 KV Motihari-Raxaul D/c tripped from Raxaul end only on O/C.	120	0	No fault has been observed

10	26-04-2018	09:15	DMTCL	At 09:15 Hrs, 132 KV Motihari-Raxaul –II tripped on R-N fault and consequently 132 KV Motihari-Raxaul –I also tripped on over current causing load loss of 40 MW at Raxaul and 70 MW load interruption to Nepal.	110	0	No fault has been observed
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4) Single line tripping incidences of April, 2018 is 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. 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. Please confirm your participation in the meeting along with name and designation of the participants.

Yours faithfully,

**-sd-**  
**(J. Ganeswara Rao)**  
**Executive Engineer**

**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 (SLDC) Damodar Valley Corporation, GOMD-I Premises, P.O.- Danesh Sheikh Lane, Howrah- 711109	Chief Engineer (CTC) Damodar Valley Corporation, P.O. Maithon Dam, Dist. Dhanbad, Jharkhand-828207
Chief Engineer, Trans (O&M) Jharkhand Urja Sancharan Nigam Limited Kusai Colony, Doranda, Ranchi-834002	Electrical Superintending Engineer (CLD) Jharkhand Urja Sancharan Nigam Limited, Kusai Colony, Doranda, Ranchi-834002
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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)
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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
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Executive Director, ERLDC, POSOCO, Tollygunge, Kolkata-700033	Head Construction, ENCIL, Siliguri-7340051
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
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General Manager, Darbhanga(Bihar), Darbhanga Motihari Transmission Company Limited (DMTCL)	Shri Brajesh Kumar Pande, Plant Head, JITPL. (FAX:011-26139256-65)
Shri D. P. Bhagava, Chief Consultant (O&M), Teesta Urja Limited, New Delhi (FAX:011-46529744)	Director (GM Division), Central Electricity Authority Sewa Bhawan, R. K. Puram, New Delhi-110066
Director (NPC), CEA, NRPC Building, Katwaria Sarai, 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	

CC:

ASSISTANT SECRETARY, ERPC		
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## List of important transmission lines in ER which tripped in April 2018

LINE NAME	TRIP DATE	TRIP TIME	RESTORATION DATE	RESTORATION TIME	Relay Indication LOCAL END	Relay Indication REMOTE END	Reason	Fault Clearance time in msec	Remarks
<b>Fault Clearing time violating protection standard</b>									
<a href="#">400KV MALBASE-BINAGURI-I</a>	17-04-2018	20:38	17-04-2018	21:18		R_N, F.D. 129.8 KM, F.C. 2.6 kA	R-N FAULT	500 msec	No Auto Reclose operation
<a href="#">400KV MOTIHARI-BARH-II</a>	23-04-2018	13:02	23-04-2018	13:32	B-N,F/D-30 KM , F/C-1.6KA	B-n,z-2 , f/c-800 amps	B-N FAULT	500 msec	
<a href="#">220KV JODA-RAMCHANDRAPUR-SC</a>	09-04-2018	11:36	09-04-2018	12:14	Z1,y_n,63.04 km,1.07 KA	z3,Y_N,1.2 KA,100 KM	Y-N FAULT	1000 msec	
<b>Multiple tripping at the same time</b>									
<a href="#">400KV FSTPP-KhSTPP-IV</a>	10-04-2018	19:18	10-04-2018	20:22	A/R SUCCESSFUL	B-N, 10 KM, 28 KA	B-N FAULT		
<a href="#">400KV MAITHON-KhSTPP-II</a>	10-04-2018	19:18	10-04-2018	20:16	DT Reciept		DT Recieped at Maithon		
<b>Miscellaneous: Tripping on DT, No Fault observed in PMU</b>									
<a href="#">400KV RANCHI-ROURKELA-I</a>	05-04-2018	10:34	05-04-2018	11:06	Did not trip	DT received	DT RECEIVED AT ROURKELA	--	No fault observed in PMU
<a href="#">400KV PATNA-BALIA-III</a>	08-04-2018	7:29	08-04-2018	8:29		DT received	DT RECEIVED AT BALIA	--	
<a href="#">220KV MUZAFFARPUR-HAJIPUR-I</a>	19-04-2018	13:20	19-04-2018	13:31	Did not trip	Tripped from Hajipur end only	Tripped from Hajipur end only	--	No fault observed in PMU
<b>Autoreclose related issues</b>									
<a href="#">400KV MEERAMUNDALI-MENDHASAL-SC</a>	01-04-2018	17:25	01-04-2018	18:25	B-N FAULT		B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV GAYA-KODERMA-II</a>	01-04-2018	17:27	01-04-2018	19:07	B-N FAULT		B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV MEERAMUNDALI-MENDHASAL-SC</a>	04-04-2018	17:25	04-04-2018	17:38	B-N / 30 KM , 6 KA		B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">220KV BIDHANNAGAR-WARIA-I</a>	07-04-2018	14:39	07-04-2018	15:35	R-N,Z2,13.8Km,FC-8.47KA from Durgapur end	Z1,R-N Fault, FD 3.457 Km FA -13.936 KA @ Waria end	R-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV BINAGURI-RANGPO-I</a>	08-04-2018	13:52	08-04-2018	14:03	R_N	Did not trip	R-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">220KV TTPS-TSTPP-SC</a>	09-04-2018	14:33	09-04-2018	15:20		Z1, R-N, 10.77KA	R-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV MAITHON-KhSTPP-II</a>	09-04-2018	17:15	09-04-2018	17:28	Y-N, 6.53KA, 21.4km	A/R SUCCESSFUL	Y-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV MAITHON-KhSTPP-I</a>	09-04-2018	17:23	09-04-2018	18:36	B-N,8.1KA	B-N, 2.6KA, 158KM	B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV MAITHON-MAITHON RB-II</a>	09-04-2018	17:36	09-04-2018	17:47	B_N, 5.91 KM, 14.12 kA	B_N, 24 KM, 4.73 kA	B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV DURGAPUR-SAGARDIGHI-II</a>	09-04-2018	19:18	09-04-2018	19:31	Y-N, 92.12KM, 3.673KA, A/R successful		Y-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV NEW PPSP-ARAMBAGH-I</a>	09-04-2018	20:25	09-04-2018	20:54	Y_N,F.D. 191 KM, A/R successful	Y_N, F.D. 26 KM, F.C. 7.92 KA	Y-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV NEW PPSP-ARAMBAGH-I</a>	09-04-2018	21:16	10-04-2018	13:39		Z-1, Y-N, 8.9KA, 20.09Km	Y-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV TSTPP-ROURKELA-I</a>	10-04-2018	0:47	10-04-2018	1:37	TRIPPED FROM TALCHER END ONLY		B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV DARBHANGA (DMTCL)-MUZAFFARPUR-II</a>	10-04-2018	13:54	10-04-2018	14:33	BN,47.3KM,5.06KA,Z1	BN,4.7KM,13.09KA,Z1	B-N FAULT	< 100 msec	No Auto Reclose operation

LINE NAME	TRIP DATE	TRIP TIME	RESTORATION DATE	RESTORATION TIME	Relay Indication LOCAL END	Relay Indication REMOTE END	Reason	Fault Clearance time in msec	Remarks
<a href="#">400KV RANCHI-RAGHUNATHPUR-II</a>	10-04-2018	16:22	10-04-2018	17:06	YN, 132 KM, A/R Successful	YN,Z1,27.67 KM,9.5 KA	Y-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV KHARAGPUR-CHAIBASA-II</a>	10-04-2018	18:22	10-04-2018	19:08	Y-N, Z2, 163.4 KM, 1.171 KA, A/R successful	YN,Z1, 10.59 KA, 8.7 KM	Y-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">220KV BARIPADA-BALASORE-II</a>	12-04-2018	14:49	12-04-2018	16:49		B-N,FD 68 KM,FC 1.3 KA	B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">765KV GAYA-VARANASI-II</a>	13-04-2018	10:12	20-04-2018	0:19	RN,264 KM, 2.9 KM	RN,0.14 KM	R-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV KOLAGHAT-ARAMBAGH-SC</a>	14-04-2018	19:14	14-04-2018	19:38	B-N, ZONE -1 , 34.8KM, 6.075 KA, A/R successful	B-N, ZONE 1 , 35.9KM, 5.7KA,	B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV KOLAGHAT-ARAMBAGH-SC</a>	16-04-2018	17:38	16-04-2018	18:04	R-N FAULT		R-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV KHARAGPUR-CHAIBASA-II</a>	17-04-2018	15:22	17-04-2018	15:31	B_N,79 KM, 3.35 kA, A/R successful		B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV MEERAMUNDALI-MENDHASAL-SC</a>	17-04-2018	17:56	17-04-2018	18:28	B_N, 26.7 KM, 7.25 kA		B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">220KV KATAPALLI-BOLANGIR(PG)-SC</a>	18-04-2018	13:11	18-04-2018	13:41	B_N,53.91 KM, 2.84 kA	B_N, 75.8 KM, 1.36 kA	B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">220KV BINAGURI-BIRPARA-I</a>	21-04-2018	23:32	22-04-2018	23:54	B_N, 30.73 KM, 3.91 kA ,A/R successful		B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV KHARAGPUR-CHAIBASA-I</a>	23-04-2018	17:39	23-04-2018	17:49	Z-1;Y-N,67.39 KM,2.857 KA,A/R SUCCESSFUL	Y-N,112.4 2.29 KA	Y-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV ROURKELA-CHAIBASA-I</a>	24-04-2018	15:02	25-04-2018	0:11	Y_N, 83.4 KM, 4.7 kA	Y_N, 40 KM, 6.13 kA	Y-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">220KV DALKHOLA-PURNEA-II</a>	26-04-2018	10:07	26-04-2018	10:20		B_N, 25.82 KM, 4.092 kA	B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV ARAMBAGH-BAKRESWAR-SC</a>	26-04-2018	19:01	26-04-2018	19:27	BN,Z1, 26.4 KM,5.04 KA	A/R successful, BN, 107.8 KM, 2.61 KA	B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">220KV SUBHASGRAM(PG)-NEW TOWN-SC</a>	26-04-2018	20:46	26-04-2018	21:01	R-N FAULT	A/R SUCCESSFUL	R-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV KHARAGPUR-CHAIBASA-I</a>	27-04-2018	18:39	27-04-2018	19:01	A/R SUCCESSFUL	3.57 KA, R-N, 78.9 KM @CHAIBASA	R-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">220KV MAITHON-DUMKA-II</a>	28-04-2018	7:18	28-04-2018	8:48	RN,6.4 KM, Z1		R-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">220KV MADHEPURA-NEW PURNEA-I</a>	29-04-2018	4:50	29-04-2018	4:58		AUTO RECLOSURE SUCCESSFUL	R-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">220KV CHANDIL-RANCHI-I</a>	29-04-2018	18:48	29-04-2018	19:08	R-N ,4KA,		R-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV MEERAMUNDALI-ANGUL-I</a>	29-04-2018	21:14	29-04-2018	22:02	R_N,6.6 KM	A/R SUCCESSFUL	R-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV MOTIHARI-GORAKHPUR-1</a>	29-04-2018	23:49	30-04-2018	0:10	R_N, 1.687 kA, 147.1 KM	A/R SUCCESSFUL	R-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV BINAGURI-NEW PURNEA-II</a>	30-04-2018	6:11	30-04-2018	6:46	B_N, 15.7 KM, 9.77 kA, A/R successful		B-N FAULT	< 100 msec	No Auto Reclose operation
<a href="#">400KV RANCHI-RAGHUNATHPUR-III</a>	05-04-2018	15:38	05-04-2018	16:34	B-N Fault F/D 143.8 KM ,F/C 2.94KA		B-N FAULT	< 100 msec	Delayed fault clearance during Auto reclosure
<a href="#">400KV JEERAT-NEW CHANDITALA-SC</a>	17-04-2018	19:30	17-04-2018	21:03	B_N, Z II, 3.13 kA,69.78 KM	B_N, 4.945 KM, 10.93 kA, Z I	B-N FAULT	< 100 msec	Different timing of A/R in both end
<a href="#">220KV MAITHON-DHANBAD-II</a>	21-04-2018	14:26	21-04-2018	20:42	Y-N.6.6KA , F/D21 KM , A/R UNSUCCESSFUL		Y-N FAULT	< 100 msec	Different timing of A/R in both end