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NO. ERPC/PROTECTION/2018/

DATE: 02.02.2018

FAX MESSAGE NO. - 50

Τo,

As per list enclosed.

Sub: Notice for 64th Protection Coordination sub-Committee (PCC) meeting of ERPC

Notice is hereby given that 64th PCC meeting of ERPC will be held on 22nd February 2018 (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 63rd 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 January, 2018:
- SPS operation at Sikkim due to tripping of 400kV Binaguri-Rangpo line II on 10-01-18 at 17:34 hrs.
- > Tripping of 132 kV Purne(PG) Purnea(B) D/C line on 14-01-18 at 23:20 hrs.
- > Disturbance at 220/132 kV Kalyaneswari S/S on 19-01-18 at 12:23 hrs
- Tripping of 132 KV KhSTPP-Lalmatia and 132 KV Kahalgaon (BSPHCL)-Lalmatia lines on 20-01-18 at 13:28 hrs
- > Disturbance at 400kV Koderma and 400kV Bokaro-A on 30-01-18 at 10:46 hrs
- 4) Single line tripping incidences of January, 2018. Provisional list 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 <u>www.erpc-protectiondb.in</u>.

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)	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)
Damodar Valley Corporation, GOMD-I Premises,	Damodar Valley Corporation, P.O. Maithon Dam,
P.O Danesh Seikh Lane, Howrah- 711109	Dist. Dhanbad, Jharkhand-828207
Chief Engineer, Trans (O&M)	Electrical Superintending Engineer (CLD)
Jharkhand Urja Sancharan Nigam Limited	Jharkhand Urja Sancharan Nigam Limited,
Kusai Colony, Doranda, Ranchi-834002	Kusai Colony, Doranda, Ranchi-834002
Chief General Manager (O&M),	Sr. General Manager (PPA), Technical Wing,
OPTCL, Janpath, Bhubaneswar,	OHPCL, Orissa State Police Housing & Welfare
Odisha – 751 022. FAX: 0674-2542932	Corpn. Bldg. Vanivihar Chowk,
cgm.onm@optcl.co.in	Janpath,Bhubaneswar-752022
Chief Load Dispatcher, SLDC	Chief Engineer (Testing), WBSETCL
OPTCL, P.O. Mancheswar Rly. Colony	Central Testing Laboratory, Abhikshan, Salt Lake,
Bhubaneswar-751017	Kolkata-700091 (Fax no. 2367-3578/1235)
Chief Engineer (CLD)	Addl. Chief Engineer (ALDC)
WBSETCL, P.O. Danesh Sheikh Lane,	West Bengal Electricity Distribution Company Ltd
Andul Road, Howrah-711109	Vidyut Bhavan, 7 th Floor, Bidhannagar, Sector-I
	Salt Lake City, Kolkata-700091(Fax-033-2334-5862)
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,
Kolkata-700025	Dist. Bhagalpur, Bihar-813203
General Manager(O&M)	Dy. General Manager (Engineering),
FSTPS, NTPC Ltd., P.O. Nabarun,	WBPDCL,OS Dept. Corporate Office, 3/C,L.A Block,
Dist. Murshidabad, West Bengal-742236	Salt Lake-III, Kolkata-700098 (Fax-033-23350516)
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)	General Manager (O&M)
TSTPS, NTPC Ltd.	POWERGRID, Odisha Projects
P.O.Kaniha, Dist. Angul, Orissa-759117	Sahid Nagar, Bhubaneswar – 751 007
General Manager(OS), ERHQ-I, NTPC Ltd.,	Director (GM Division)
Loknayak Jaiprakash Bhawan, (2 nd Floor),	Central Electricity Authority
Dak Bunglow Chawk, Patna-800001	Sewa Bhawan, R. K. Puram, New Delhi-110066
Executive Director (O&M) NHPC Ltd., NHPC Office Complex, Sector-33,	Electrical Superintending Engineer, TTPS, Tenughat Vidyut Nigam Ltd.,
Faridabad, Haryana-121003 (Fax-01292272413)	
· · · · · · · · · · · · · · · · · · ·	Lalpania, Dist. Bokaro, Jharkhand-829149
Dy. General Manager (Electrical)	General Manager (OS), ER-I
IB Thermal Power Station, OPGCL	Power Grid Corporation of India Ltd.,
Banhapalli, Dist. Jharsuguda-768234,Orissa	Alankar Place, Boring Road, Patna-800001
Chief Engineer (Trans.) Power Deptt., Govt. of Sikkim,	Sr. Manager (CTMC)
	Durgapur Projects Limited,
Gangtok-731010	Durgapur-713201 Managar (Elastrical) Adhunik Dowar & Natural
Executive Director,	Manager (Electrical), Adhunik Power & Natural
ERLDC, POSOCO	Resources Ltd. "Lansdowne Towers, Kolkata-700020
14, Golf Club Road, Tollygunge,Kolkata-700033	(Fax No. 033-2289 0285)
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
General Manager (P&O), PTC Ltd.,	Vice President, Vedanta Ltd.
Kanchanjunga Bldg.,18, Barakhamba Road,	1 st Floor, Module C/2, Fortune Tower, C S Pur,
New Delhi-110001	Bhubaneswar- 751023
Managing Director, Bhutan Power Corporation	Managing Director, Druk Green Power Corprn.
Post Box no. 580, Thimpu, Bhutan.	P.O. Box-1351, Thimpu, Bhutan.
General Manager, Darbhanga(Bihar), Darbhanga	Head Construction, ENCIL, Siliguri-7340051
Motihari Transmission Company Limited (DMTCL)	
Shri D. P. Bhagava, Chief Consultant (O&M), Teesta	Shri Brajesh Kumar Pande, Plant Head, JITPL.
Urja Limited, New Delhi (FAX:011-46529744)	(FAX:011-26139256-65)

	List of important transmission lines in ER which tripped in January-2018											
S.N O		TRIP DATE	TRIP TIME	RESTORATION DATE	RESTORATIO N TIME	Relay Indication LOCAL END	Relay Indication REMOTE END	Reason	Fault Clearance time in msec	Auto Recloser status	DR/EL RECEIVED FROM LOCAL END	DR/EL RECEIVED FROM REMOTE END
1	400KV MOTIHARI-BARH-II	03/08/2017	7:14	05/01/2018	14:34	BN,2.35KA,30.9KM FROM MOTIHARI	BN,2.44KA, 181KM FROM	B-N Fault				
2	HVDC PUSAULI	29/12/2017	5:47	04/01/2018	20:08	DUE TO SUCCESSFUL A/R OF 400KV SASARAM VARANASI		DUE TO SUCCESSFUL A/R OF 400KV SASARAM VARANASI				
3	132KV KARMNASHA-SAHUPURI-I	29/12/2017	23:32	06/01/2018	11:25							
4	400KV ROURKELA-JHARSUGUDA-IV	30/12/2017	0:33			attempt made @15 :47 tripped SOTF B-phase, 18 KA	anti theft charged at 19:55					
5	132KV KhSTPP, NTPC-Lalmatia-I	01/01/2018	3:40		Charging attemp from LMT at 04:50 hrs failed.	KHSTPP: Y ph E/F	Lalmatia: YN, 15.10 KM, 2.55 KA, jumper snapped at tower 29, could not	Earth Fault				
6	132KV KhSTPP, NTPC-Lalmatia-I	01/01/2018	4:30	02/01/2018	16:07	tripped on E/F then charging attempt taken at 04:30 hrs but did not hold		Earth Fault				
7	400MVAR BR-2 AT DARBHANGA (DMTCL)	03/01/2018	0:40			BACK -UP IMPEDANCE RELAY,FC 0.17KA		BACK -UP IMPEDANCE RELAY				
8	400MVAR BR-2 AT DARBHANGA (DMTCL)	03/01/2018	15:12	03/01/2018	16:01	Relay Malfunction		Relay Malfunction				
9	80MVAR LR-1 OF 400KV FARAKKA- GOKARNO-1 AT FARAKKA	04/01/2018	6:16	06/01/2018	17:16	Due to tripping of bus 2		Due to tripping of bus 2				
10	HVDC PUSAULI	05/01/2018	0:08			System failure alarm R-N,Z1,45 KM,FAULT	R-N,Z1,86.8	System failure alarm				
11	400KV ARAMBAGH-BAKRESWAR-SC	05/01/2018	6:30	05/01/2018	16:25	CURRENT R=7.597 KA	KM,FAULT CURRENT R=7.597	R-N Fault				
12	1500MVA ICT-2 AT ANGUL	05/01/2018	8:36	05/01/2018	11:13	Operated.	charging attempt	Buchholz Relay Operated.				
13	400KV MOTIHARI-BARH-II	05/01/2018	14:34			O/C, 8.9KM, FC- R 6.49 KA, Y 7.02 KA, B 6.54 KA @MOTIHARI	at 17:36 hrs failed again with same relay indications/dist	3 Ph Fault				
14	400KV ARAMBAGH-BAKRESWAR-SC	05/01/2018	16:25			SOTF		SOTF				
15 16	315MVA ICT-1 AT KOLAGHAT HVDC PUSAULI	05/01/2018	16:25 2:16	05/01/2018	19:36 20:02	86 RELAY SYSTEM FAILURE		86 RELAY SYSTEM FAILURE ALARM				
10	400KV MAITHON-KhSTPP-II	06/01/2018	3:59	00/01/2018	20.02	ALARM R-Y Fault , 164.4 Km	CT Blast	CT BLAST				
18	400KV FSTPP-KhSTPP-IV	06/01/2018	3:59	06/01/2018	16:32	From Maithon DT RECEIVED	CT BLAST	CT BLAST				
19	315MVA ICT-2 AT KOLAGHAT	06/01/2018	11:05	06/01/2018	12:01	86 relay operated SYSTEM FAILURE		86 relay operated				
20	HVDC PUSAULI	08/01/2018	3:09	08/01/2018	20:17	ALARM		SYSTEM FAILURE ALARM				
21	500KV HVDC TALCHER-KOLAR POLE-I	08/01/2018	17:48	08/01/2018	18:00	dc build up protection PROBLEM IN VALVE		dc build up protection				
22	500KV HVDC TALCHER-KOLAR POLE-I	08/01/2018	19:06	09/01/2018	0:54	HALL		PROBLEM IN VALVE HALL				
	400KV TSTPP-ROURKELA-I 400KV TSTPP-ROURKELA-II	09/01/2018 09/01/2018	7:52 7:52	09/01/2018 09/01/2018	8:19 8:13							
25	500KV HVDC TALCHER-KOLAR POLE-I	09/01/2018	7:52	09/01/2018	9:04							
26	220KV TENUGHAT-BIHARSARIFF-I	09/01/2018	13:01	09/01/2018	13:47	R-N		R-N Fault				
27	400KV KHARAGPUR-CHAIBASA-II	10/01/2018	12:39	10/01/2018	13:13	125.1 km from chaibasa,2.18 ka,Y-N	Z1, Y PHASE, 68.17 KM, FAULT CURRENT - 3.32	Y-N fault				
28	400KV KHARAGPUR-CHAIBASA-II	10/01/2018	13:24	10/01/2018	16:13	109 km,3.4 kA,Y_N		Y-N fault				
29	400KV TEESTA-III-RANGPO-II	10/01/2018	17:34			SPS II signal received from Rangpo		SPS II signal received from Rangpo				
30	400KV TEESTA-III-DIKCHU-I	10/01/2018	17:34			Opened from Dikchu end		Opened from Dikchu end				
31	400KV BINAGURI-RANGPO-II	10/01/2018	17:34			R_Y_N Fault		R_Y_N Fault				
32	220KV NEW MELLI-JORETHANG-I	10/01/2018	17:34									
33	220KV NEW MELLI-TASHIDING-SC	10/01/2018	17:34									
34 35	220KV JORETHANG-NEW MELLI-II 220KV TASHIDING-RANGPO-SC	10/01/2018 10/01/2018	18:34 18:34									
36	HVDC PUSAULI	10/01/2018	20:03			System Failure Alarm		System Failure Alarm				
37	315MVA ICT-2 AT JEYPORE	11/01/2018	7:45									
38 39	400KV BINAGURI-TALA-II 132KV RANGIT-KURSEONG-SILIGURI-	11/01/2018 11/01/2018	10:00 11:02	11/01/2018	11:26	B-N Fault , 48 Km from		B-N fault				
40	I 220KV JODA-JINDAL-SC	12/01/2018	8:00	13/01/2018	0:25	Kurseong , Z1 B-ph line isolator burnt		B-ph line isolator burnt at Joda end				
41	400MVAR BR-1 AT Rourkela	12/01/2018	9:45	12/01/2018	12:48	TRIPPED WHILE TAKING S/D OF 400 KV BUS-2 AT ROURKELA		TRIPPED WHILE TAKING S/D OF 400 KV BUS-2 AT ROURKELA				
42	800KV HVDC ALIPURDUAR-AGRA- POLE-IV	13/01/2018	7:16			station ground overcurrent protection AT AGRA END		station ground overcurrent protection AT AGRA END				
43	400KV RANCHI-ROURKELA-II	13/01/2018	13:26			R-N, F/D-77.5KM, F/C- 4.1KA	R-N, Z1, F/D- 50.32, F/C-	R-N Fault				
44	132KV BANKA (PG)-SULTANGANJ-I	13/01/2018	15:08	13/01/2018	16:32	Tripped from Sultanganj end only	Sultanganj: O/C EF	O/C E/F				

S.N O		TRIP DATE	TRIP TIME	RESTORATION DATE	RESTORATIO N TIME	Relay Indication LOCAL END	Relay Indication REMOTE END	Reason	Fault Clearance time in	Auto Recloser status	DR/EL RECEIVED FROM LOCAL	DR/EL RECEIVED FROM REMOTE
45	400KV RANCHI-ROURKELA-II	13/01/2018	17:47			Ranchi:YBN, Iy=5.3KA, Ib=4.9KA Distance:	Rourkela: YBN, ly=9KA,lb=10KA	Y-B-N fault	msec		END	END
_	132KV PURNEA (PG)-PURNEA(BSEB)-					104.8 KM Tripped on O/C from	Distance :40KM					
46	II 132KV PURNEA (PG)-PURNEA(BSEB)-	14/01/2018	23:20	14/01/2018	23:38	BSEB end only Tripped on O/C from		Tripped on O/C from BSEB end only				
47		14/01/2018	23:20	14/01/2018	23:38	BSEB end only		Tripped on O/C from BSEB end only				
48	132KV KATAYA-KUSAHA-1	16/01/2018	14:45	16/01/2018	15:35	la-629A Ib-809A Ic- 884A IN LAHAN LINE	SOME HOTSPOT AT 33 KV OUTGOING FEEDER OF	SOME HOTSPOT AT 33 KV OUTGOING FEEDER OF KUSAHA NEPAL				
49	132KV BANKA (PG)-SABOUR-II	16/01/2018	20:17	16/01/2018	20:36	86 TRIP IN BIHAR	R PH FAULT,7.082KM,7. 95 KA	R-N Fault				
50	400KV NEW RANCHI-CHANDWA-I	16/01/2018	20:42			B-N FAULT		B-N FAULT				
51	220KV MUZAFFARPUR-HAJIPUR-II	17/01/2018	13:20	17/01/2018	13:40	Spurious trip		Spurious trip				
52	400KV RENGALI-INDRAVATI-SC	17/01/2018	15:43	17/01/2018	15:54	DT received @ rengali		DT received @ rengali				
53	132KV BANKA (PG)-SULTANGANJ-I	17/01/2018	23:51	18/01/2018	0:18	Y-n, 14.75 km, 4.33 ka	Y-n, 21km	Y-N fault				
54	132KV KATAYA-KUSAHA-1	18/01/2018	7:50	18/01/2018	8:53	over current earth fault		over current earth fault				
55	132KV NBU-SILIGURI-SC	18/01/2018	11:58	18/01/2018	11:50	O/C EARTH FAULT		O/C EARTH FAULT				
56	220KV ATRI-PANDIABILI-II	18/01/2018	16:07	18/01/2018	16:45	Opened from Atri end only		Opened from Atri end only				
57	132KV KATAYA-KUSAHA-1	19/01/2018	3:50	19/01/2018	4:25	O/C EF		O/C EF				
58	132KV MAITHON-JAMTARA-SC	19/01/2018	12:23	19/01/2018	13:15					<u> </u>		
59	220KV MAITHON-KALYANESHWARI-I	19/01/2018	12:23	19/01/2018	13:20							
60	132KV MUZAFFARPUR-DHALKEBAR-I	19/01/2018	17:40	19/01/2018	18:12	sps stage-II, I_Y 762 A		sps stage-II operated				
61	132KV KhSTPP, NTPC-Lalmatia-I	20/01/2018	13:28	20/01/2018	13:58		TRIPPED FROM LALMATIA END ONLY TRIPPED FROM	TRIPPED FROM LALMATIA END ONLY				
62	132KV KAHALGAON(BSEB)- LALMATIA-1	20/01/2018	13:28				LALMATIA END ONLY	TRIPPED FROM LALMATIA END ONLY				
63	315MVA ICT-2 AT BIHARSARIFF	20/01/2018	15:17	20/01/2018	17:06	DUE TO FAILURE OF DC-DC CONVERTER OF TEED-2 PROTN		DUE TO FAILURE OF DC-DC CONVERTER OF TEED-2 PROTN				
64	220KV RANCHI-HATIA-I	20/01/2018	15:50	20/01/2018	16:44	RYN Fault, Ir=6.4 KA, Iy=6.22 KA FD: 16.4 KM	RYN, Ir=3.9 KA, Iy=4.18 KA FD: 14 KM	RYN Fault				
65	400KV TSTPP-MEERAMUNDALI-SC	20/01/2018	17:36	21/01/2018	15:18	R PHASE LA BURST	RN, Ir=8.5 KA, FD: 40KM, A/R Unsuccessfull	R PHASE LA BURST AT MERAMUNDULI				
66	400KV JEERAT-NEW CHANDITALA-SC	20/01/2018	23:36	21/01/2018	12:48		SF6 Gas leakage in CB	SF6 Gas leakage in CB @ Chanditala				
67	400KV BINAGURI-TALA-II	20/01/2018	23:47	21/01/2018	0:34	DT received @ Binaguri		DT received @ Binaguri				
68	132KV KATAYA-KUSAHA-1	22/01/2018	18:45	22/01/2018	19:20	Y PHASE , OVER CURRENT RELAY		Y PHASE OVER CURRENT RELAY OPERATED				
69	132KV RIHAND-GARWAH-I	23/01/2018	0:05	23/01/2018	0:23	TRIPPED FROM		TRIPPED FROM RIHAND END ONLY				
70	132KV MUZAFFARPUR-DHALKEBAR-I	24/01/2018	17:16	24/01/2018	17:30	RIHAND END ONLY		SPS OPERATED				
71	765KV DHARAMJAIGARH-	25/01/2018	9:34	25/01/2018	11:16			SPURIOUS TRIPPING AT				
	JHARSUGUDA-I 220KV MEERAMUNDALI-			25/01/2018	11:10			JHARSUGUDA				
72	BHANJANGR-I	26/01/2018	0:46					Y-B-N FAULT				
73	400KV NEW DUBURI- MEERAMUNDALI-I	26/01/2018	0:46	30/01/2018	16:11			Y-N FAULT				
74		26/01/2018	3:47	26/01/2018	5:03			SYSTEM FAIL ALARM				
75	132KV MUZAFFARPUR-DHALKEBAR-I	28/01/2018	13:05	28/01/2018	13:31			SPS OPERATED				
76	400KV SASARAM-NABINAGAR-II	29/01/2018	4:42	29/01/2018	7:11			DT RECEIPT AT SASARAM				
77	400KV RANCHI-ROURKELA-II	29/01/2018	15:30	29/01/2018	16:14			SPURIOUS TRIPPING OF TIE BAY DURING TESTING OF MAIN BAY				
78	400KV JHARSUGUDA-ROURKELA-II	29/01/2018	22:54	29/01/2018	23:58			DT RECEIVED AT JHARSUGUDA				
79 80	400KV RANCHI-ROURKELA-II 400KV KODERMA-BIHARSARIFF-II	29/01/2018	22:54	29/01/2018	23:30			TRIPPED FROM ROURKELA DUE TO PROBLEM IN TIE CB OF 400 KV KODERMA - GAYA - II AND 400				
00	TOOLY NODENIVIA-DIFIARSARIFF-II	30/01/2016	10.40	30/01/2016	11.22			KV KODERMA - GAYA - II AND 400 KV KODERMA - BIHARSHARIFF - II				
81	400KV KODERMA-BOKARO-II	30/01/2018	10:46	30/01/2018	12:17			DUE TO PROBLEM IN TIE CB OF 400 KV KODERMA - GAYA - II AND 400 KV KODERMA - BIHARSHARIFF - II				
82	400KV GAYA-KODERMA-II	30/01/2018	10:46	30/01/2018	11:59			DUE TO PROBLEM IN TIE CB OF 400 KV KODERMA - GAYA - II AND 400 KV KODERMA - BIHARSHARIFF - II				
83	400KV KODERMA-BOKARO-I	30/01/2018	10:46	30/01/2018	12:23			DUE TO PROBLEM IN TIE CB OF 400 KV KODERMA - GAYA - II AND 400 KV KODERMA - BIHARSHARIFF - II				
84	400KV GAYA-KODERMA-I	30/01/2018	10:46	30/01/2018	12:37			DUE TO PROBLEM IN TIE CB OF 400 KV KODERMA - GAYA - II AND 400 KV KODERMA - BIHARSHARIFF - II				

S.N O	LINE NAME	TRIP DATE	TRIP TIME	RESTORATION DATE	RESTORATIO N TIME	Relay Indication LOCAL END	Relay Indication REMOTE END	Reason	Fault Clearance time in msec	Auto Recloser status	FROM	
85	400KV KODERMA-BIHARSARIFF-I	30/01/2018	10:46	30/01/2018	12:47			DUE TO PROBLEM IN TIE CB OF 400 KV KODERMA - GAYA - II AND 400 KV KODERMA - BIHARSHARIFF - II				
86	400KV RANCHI-RAGHUNATHPUR-II	31/01/2018	13:05					R-N FAULT				
87	400KV RANCHI-RAGHUNATHPUR-II	31/01/2018	13:05	01/02/2018	16:53			R-N FAULT				
88	HVDC PUSAULI	01/02/2018	8:48	01/02/2018	9:56			SYSTEM FAIL ALARM				
89	220KV ARRAH-NADHOKHAR-SC	01/02/2018	8:50	01/02/2018	9:03			Y-N FAULT				