



भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
पूर्वी क्षेत्रीय विद्युत समिति
Eastern Regional Power Committee
14, गोल्फ क्लब रोड, टालीगंज, कोलकाता-700033
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NO. ERPC/PROTECTION/2018/

DATE: 07.01.2019

FAX MESSAGE NO. - 507

To,

As per list enclosed.

Sub: Notice for 75th Protection Coordination sub-Committee (PCC) meeting of ERPC

Notice is hereby given that **75th PCC meeting** of ERPC will be held on **22nd January 2019 (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 74th Protection sub-Committee Meeting of ERPC
- 2) Follow-up action on decision of previous Protection sub-Committee Meetings. The list of follow up events is enclosed at **Annexure-I.**
- 3) Analysis of following grid disturbances of December, 2018:

SI No	Date	Time	Affected System	Summary	Load loss (MW)	Gen loss (MW)	Fault duration (As Per PMU)
1	GI-II	05-12-2018	ISTS (ER part)	All three poles of Reactor isolator of the 420 kV, 50 MVAR Bus Reactor 2 at Bongaigaon opened on load condition. Arc in R-ph due to this isolator operation struck the nearby structure (>nominal distance of 3.5 meter) which resulted in R-N fault. HVDC Alipurduar pole IV was under shutdown. Pole III and HVDC Alipurduar, 400 kV Alipurduar Bongaigaon D/C and 220 kV Alipurduar - Salakati D/C tripped during this event.	0 (in ER)	0	500 ms
2	GI-II	06-12-2018	ISTS	At 13:27 hrs Bus I at Jeypore tripped due to operation of LBB of main bay of 125 MVAR B/r (409 Bay). At the same time ICT II also tripped due to nonavailability of its tie bay as 63 MVAR B/r was out of service.	0	0	Fault not observed in PMU data
3	GD-I	18-12-2018	DVC	Due to burst of Y phase LA of 132 kV Kalyaneswari - Maithon - II at Kalyaneswari end, 220 kV bus tie at Kalyaneswari, 220/132 kV ATR I, II & III at Kalyaneswari, 132 kV Kalyaneswari - Kalipahari D/C, 132 kV Kalyaneswari - Maithon D/C tripped	250	0	1300 ms

				resulting total power failure at Kalyaneswari S/S.			
4	GD-I	24-12-2018	BSPTCL	220 kV Gaya Sonenagar D/C tripped on R-N fault leading to a load loss at Sonenagar and its nearby area.	115	0	--
5	GD-I	25-12-2018	OPTCL	At 12:47 hrs disk insulator of y phase transfer bus snapped and fell on 220 kV Budhipadhar - Lapanga - II resulting tripping of all lines emanating from Budhipadhar.	30	370	1000 ms (approx)

4) Single line tripping incidences of December-2018 is enclosed at **Annexure-II**.

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.

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 Seikh Lane, Howrah- 711109	Chief Engineer (CTC) Damodar Valley Corporation, P.O. Maithon Dam, Dist. Dhanbad, Jharkhand-828207
Chief Engineer, (CRITL) Jharkhand Urja Sancharan Nigam Limited Kusai Colony, Doranda, Ranchi-834002	Electrical Superintending Engineer (CLD) Jharkhand Urja Sancharan Nigam Limited, 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	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, 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
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
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.

SI No.	Name of the incidence	PCC Recommendation	Latest status
	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	DGM (E&I), HALDIA ENERGY LIMITED, BARIK BHAWAN, KOKATA-700072, FAX: 033-22360955	

CC:

ASSISTANT SECRETARY, ERPC		
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74th PCC Meeting			
1.	Disturbance at 220 kV TTPS (NTPC) S/s on 29.11.18 at 07:21 hrs	PCC advised NTPC to verify the PSL logic in the distance relay and check the reason for distance relay pickup in this case. PCC felt that 3.1 sec for pole discrepancy timer is quite high and advised NTPC to review the pole discrepancy timer settings.	
2.	Multiple tripping incident at Darbhanga at 13:33 hrs on 06-11-18 and at 15:23 hrs on 06-11-18	PCC suggested to keep the highset setting more than 7 and advised DMTCL to review the settings.	
3.	Tripping of 400 kV KTPP Kharagpur - I S/C on 11.11.18	PCC advised WBSETCL and WBPDCCL to coordinate autorecloser discrimination time with the dead time of circuit breaker.	
4.	Tripping of 400 KTPP New Chanditala S/C at 12:12 hrs on 15.11.18	PCC advised WBPDCCL to verify zone-3 time settings as well as TOR settings.	
5.	Tripping of 400 kV Jeerat-Bakreswar S/C at 00:22 hrs on 18.11.18	PCC observed that sampling frequency and time duration of DR at Bakreswar end is not proper and advised WBPDCCL to take necessary action.	
6.	Tripping of 400 kV KTPP-Kharagpur-2 & 400 KTPP-New Chanditala S/C at 12:21 hrs on 23.11.18	<p>PCC advised WBPDCCL to submit a report explaining the following points.</p> <ul style="list-style-type: none"> Reason for tripping of Y & B phase breaker in 400 KTPP-New Chanditala S/C line and subsequently non-operation of pole discrepancy relay at KTPP end. Reason for sending carrier signal from KTPP end to New Chanditala end. Reason for delayed opening of R-phase breaker(manually) of 400 KTPP-New Chanditala S/C line at KTPP end. <p>PCC also advised WBSETCL and WBPDCCL to verify the DEF status for 400 KTPP-New Chanditala S/C line at respective end.</p>	
73rd PCC Meeting			
7.	Total Power failure at 220 kV Hatia (JUSNL) substation on 03.10.18 at 17:23 hrs and on 04.10.18 at 00:26 hrs	PCC advised JUSNL to test the Bus bar and LBB protection, PLCC and configuration of DT signal in the relay at Hatia end.	JUSNL informed that tender has been awarded to local agency for testing of PLCC & protection system. The testing will be completed within 10 days. They have configured the DT

			signal at Hatia end.
8.	Total Power failure at Madhepura(BSPTCL) S/s on 20.10.18 at 09:48 hrs.	PCC advised BSPTCL to check for any trippings in downstream network.	
9.	Total Power failure at TLDP-III S/s on 27.10.18 at 10:24 hrs.	PCC advised WBSETCL and NHPC to review the DEF settings for proper protection coordination between the transmission lines and generating station.	PCC advised PRDC to coordinate the settings with reference to GT of TLDP side.
72nd PCC Meeting			
10.	HVDC TFR triggering standardization and reporting requirements.	PCC advised POWERGRID to submit TFR triggering criteria and TFR signal list for all HVDC station of Eastern region to ERLDC	
11.	Repeated tripping of 220 kV Jorethang-New Melli D/C and Tashiding-N. Melli S/C	PCC advised DANS energy to review the relay settings for both the lines.	
71st PCC Meeting			
12.	Disturbance at 220/132 kV Motipur(BSPTCL) S/s on 15.08.18 at 13:00 hrs.	PCC advised BSPTCL to check the disturbance recorders of all the lines in 220 kV Motipur S/s and communicate the findings to ERPC/ERLDC at the earliest.	
13.	Disturbance at 400 kV Farakka S/s on 19.08.18 at 15:26 hrs.	PCC advised NTPC to replace/divert Micom P437 relay to avoid unwanted tripping of such important transmission line. PCC also advised to check the reason for not sending carrier from Farakka to Kahalgaon and non-operation of Autorecloser.	NTPC informed that the relay has been replaced.
68th PCC Meeting			
14.	Issues related with Generation Backing down during Talcher-Kolar SPS operation on 16th May 2018.	<p>PCC advised Powergrid to explore for inclusion of pole block with ground return mode signal in the SPS logic.</p> <p>PCC advised NTPC, GMR and JITPL to ensure the generation reduction as per the SPS logic.</p> <p>PCC advised NTPC also to explore for inclusion of pole block with ground return mode signal in the SPS logic.</p>	Regarding inclusion of pole block with ground return mode signal in the SPS logic, Powergrid informed that the issue was referred to OEM.
15.	Issue of Protection Coordination Observed during Blackout of Tala on 23rd May 2018.	PCC advised Bhutan representatives to submit a detailed report on the above disturbance to ERPC and ERLDC at the earliest.	

Annexure-I

List of Intra Regional line tripping in the month of December 2018 where violation of protection standard has been observed

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
Miscellaneous: High Fault clearing time, Tripping on DT, No Fault observed in PMU									
400KV MOTIHARI-BARH-II	07-12-2018	11:25	07-12-2018	11:35	DT received at Motihari		DT received at Motihari	--	--
220KV PUSAULI-SAHUPURI-SC	07-12-2018	16:02	07-12-2018	16:32	RN, 0.98 KA,25.2 KM		R-N Fault	800 msec	No A/R operation
400KV KHARAGPUR-KOLAGHAT-I	10-12-2018	16:01	10-12-2018	16:20	DT RECEIVED AT KGP WHILE TRANSFERRING TO MAIN BAY		DT RECEIVED AT KGP WHILE TRANSFERRING TO MAIN BAY	--	--
220KV ARRAH-NADHOKHAR-SC	11-12-2018	0:40	11-12-2018	1:45		Nadokar: CB Auto trip, charged but tripped		--	--
765KV ANGUL-JHARSUGUDA-III	17-12-2018	3:21	17-12-2018	4:05	DT SENT BY ANGUL		DT SENT BY ANGUL	--	--
400KV PPSP-NEW PPSP-II	17-12-2018	6:56	17-12-2018	9:56	LINE DIFFERENTIAL PROTN. OPTD.		LINE DIFFERENTIAL PROTN. OPTD.		No fault signature in PMU
400KV NEW PPSP-NEW RANCHI-II	20-12-2018	8:46	20-12-2018	9:25	NO TRIPPING AT N PPSP END	DT Received at N Ranchi end	DT Received at N Ranchi end	--	--
400KV MEERAMUNDALI-MENDHASAL-SC	27-12-2018	17:40	27-12-2018	19:42	No tripping	Master trip signal at Mendhasal; 2nd time for 18:29, master trip operated	Master trip signal at Mendhasal	--	--
Autoreclose related issues									
400KV KOLAGHAT-KHARAGPUR-II	09-12-2018	13:32	09-12-2018	14:10	RN, 36.73 KM	RN, 20 KM, 1.6 KA	R-N Fault	< 100 msec	No A/R operation
400KV DURGAPUR-SAGARDIGHI-II	10-12-2018	9:28	10-12-2018	13:46	B-N Fault, A/R SUCCESSFUL FROM DURGAPUR END ONLY		B-N Fault	< 100 msec	No A/R operation
400KV PATNA-BARH-I	19-12-2018	5:12	19-12-2018	5:46		BN, 15.07 KM, 20.23 KA	B-N Fault	< 100 msec	No A/R operation
220KV PARULIA-DURGAPUR-II	19-12-2018	11:57	19-12-2018	13:24	B-N , F/D-7.1KM , F/C5.6KA		B-N Fault	< 100 msec	No A/R operation
220KV BARIPADA-BALASORE-I	20-12-2018	16:26	20-12-2018	21:47	R_ph LA burst at Baripada end		R_ph LA burst at Baripada end	< 100 msec	No A/R operation
220KV GAYA-SONENAGAR-II	24-12-2018	23:28	24-12-2018	11:48	R-N, 64.9KM, 2.54KA		R-N Fault	< 100 msec	No A/R operation
220KV PUSAULI-DEHRI-SC	25-12-2018	12:59			RN, 39.4 KM, 3.4 KA		R-N Fault	< 100 msec	No A/R operation