

### भारत सरकार Government of India विद्युत मंत्रालय Ministry of Power पूर्वी क्षेत्रीय विद्युत समिति

# **Eastern Regional Power Committee**

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NO. ERPC/PROTECTION/2020/ 1451-1495

DATE: 05.06.2020

To,

As per list enclosed,

Sub: Notice for 91st Protection Coordination sub-Committee (PCC) meeting of ERPC

Sir,

Notice is hereby given that **91**<sup>st</sup> **PCC meeting** of ERPC will be held on **24**<sup>th</sup> **June 2020 (Wednesday)** from **10:00 hrs** through online WEBEX meeting platform.

The tentative agenda items for discussion will be as follows:

- 1) Confirmation of the minutes of 90<sup>th</sup> Protection sub-Committee Meeting of ERPC.
- 2) Analysis of following grid disturbances of May 2020:

SI No	GD/ GI	Date	Time	Affected System	Summary	Load loss (MW)	Gen loss (MW)
1	GD-1	05-05- 2020	19:09	BSPTCL	On 5th May 2020, at 19:09 Hrs, 220 kV Darbhanga (DMTCL)-Darbhanga (BSPTCL) D/C tripped on Y phase to earth fault. At the same time 220 kV Dharbanga-Mushahari-1 also tripped resulting in load loss at Darbhanga, Madhubani and Pandaul. Later on it was informed by BSPTCL that there was a Y-phase jumper snapping of 220 kV Darbhanga (DMTCL)-Darbhanga (BSPTCL) - 2 which was the root cause of the event	180	0
2	GD-1	06-05- 2020	01:19	JUSNL	At 01:13 hrs 400/220 kV ICT 1 & 2 at Chaibasa (PG) tripped from 220 kV side due to maloperation of back up impedance relay. At 01:19 hrs, 220 kV Chaibasa (JUSNL) — Chaibasa (PG) D/C and 220 kV Chaibasa (JUSNL) — Ramchandrapur D/C tripped due to R phase to earth fault resulting in total power failure at 220/132 kV Chaibasa (JUSNL) S/S. 132 kV Rajkharswan — Goelkhera S/C also tripped at same time.	20	0
3	GD-1	07-05- 2020	12:51	ISTS	Tripping of 400 kV Barh - Motihari - 2 due to Y phase to earth fault, had led to loss of supply to Betiah/Raxaul/Motihari as being the single source of supply.	85	0

4	GI-2	07-05- 2020	18:47	ISTS	At 18:47 Hrs, 400 KV Alipuduar - Jigmelling D/C tripped on R-Y-N fault caused tripping of Mangdechu units #1 and #2 (At Bhutan) on no evacuation path. No generation and load loss at Indian grid. At Bhutan grid around 238 MW generation loss occurred at Mangdechu.	0	0
5	GD-1	10-05- 2020	22:51	BSPTCL	220 kV Gaya Sonenagar – D/C tripped at 22:51 hrs due to R phase to earth fault resulting total power failure at Sonenagar S/S. Around 130 MW load loss was reported at Aurangabad, Sonenagar, Rafi Ganj, Japla. Around 15 MW traction load loss was reported at Japla, Garwah and Rafi Ganj.	130	0
6	GD-1	10-05- 2020	23:56	ISTS	Tripping of 400 kV Barh - Motihari - 2 due to Y phase to earth fault, had led to loss of supply to Betiah/Raxaul/Motihari as being the single source of supply	120	0
7	GD-1	11-05- 2020	02:48	ISTS	Tripping of 400 kV Barh - Motihari - 2 due to Y phase to earth fault, had led to loss of supply to Betiah/Raxaul/Motihari as being the single source of supply.	120	0
8	GD-1	14-05- 2020	15:33	JUSNL	220 kV Ranchi Hatia T/C, 220 kV Patratu-Hatia D/C and 220/132KV 150MVA ICT-1, 2 and 3 at Hatia tripped at same time resulting in total power failure at 220/132 kV Hatia S/S. In Jamshedpur PMU data, one R phase to earth fault has been captured. Fault was cleared at around 400 ms.	161	0
9	GD-1	16-05- 2020	19:28	OPTCL	At 19:26 hrs. 400 kV Meramundali – JSPL – 1 tripped due to receipt of DT signal at Meramundali end. After around 1 min, 400 kV Meramundali – JSPL – 2 tripped due to same reason resulting total power failure at JSPL. Inclement weather condition was reported at the time of the event.	160	230
10	GI-1	18-05- 2020	0:53	JUSNL	220 kV TTPS – PTPS S/C tripped from PTPS end only on B phase to earth fault. 220 kV TTPS – PTPS S/C, unit 2 at TTPS and station transformer 2 at TTPS were connected to 220 kV bus 2 at TTPS. So, both the running units at TTPS and 220 kV bus coupler at TTPS (tripping of bus coupler was verbally informed by TTPS) tripped to clear the fault. 220 kV TTPS – Bihar Sharif S/C and 220 kV bus 1 at TTPS did not trip during this event.	0	302
11	GI-1	19-05- 2020	02:56	JUSNL	132 kV side B phase CT of 220/132 kV ICT – 3 at 220/132 kV Hatia S/s got burst. At same time, 220 kV Ranchi Hatia 1 and 3, 220/132KV 150MVA ICT-1, 2 and 3 at Hatia tripped resulting total loss of supply at 132 kV voltage level of Hatia S/S. 220 kV bus at Hatia remained in service along with 220 kV PTPS – Hatia D/C and 220 kV Ranchi – Hatia – 2.	200	0 ,

				- 17	At 20:57 hrs both circuits tripped resulting in		
12	GD-1	19-05- 2020	20:57	ISTS	total power failure at Dikchu HEP. 400 kV Teesta III – Dikchu S/C tripped due to B phase to earth fault. 400 kV Rangpo – Dikchu S/C tripped due to direct trip signal received at Rangpo.	0	55
13	GD-1	20-05- 2020	13:23	ISTS	Tripping of 400 kV Barh - Motihari - 2 due to R phase to earth fault, had led to loss of supply to Betiah/Raxaul/Motihari as being the single source of supply.	110	0
14	GD-1	24-05- 2020	12:38	JUSNL	At 12:28 hrs 220 kV TTPS — Bihar Sharif S/C tripped due to R phase to earth fault. The whole power generated by TTPS was being evacuated through 220 kV TTPS — PTPS S/C. At 12:38 hrs, 220 kV TTPS — PTPS S/C tripped due to B phase to earth fault resulting in tripping of both running units at TTPS.	0	292
15	GI-1	24-05- 2020	19:51	ISTS	220 kV Muzaffarpur Dhalkebar D/C tripped due to B phase directional O/C resulting in loss of power supply to Dhalkebar. Prior to the tripping export schedule to Nepal was 90 MW. Around 60-70 MW power was flowing through 220 kV Muzaffarpur Dhalkebar D/C. At 19:49 hrs power through these two circuits increased to more than 145 MW. No load loss reported in Indian grid.	0	0
16	GD-1	27-05- 2020	0:56	WBSETCL	At 00:56 Hrs. all 220 kV lines from 220 kV NJP tripped due to tripping of both 220 kiva Buses ,causing generation loss at TLDP III and TLDP IV on no evacuation path	0	280
17	GD-1	27-05- 2020	4:28	ISTS	220 kV New Melli - Jorethang - 1 tripped on Y phase to earth fault from Jorethang end. 220 kV New Melli - Jorethang - 2 tripped on overcurrent protection from Jorethang end only. At same time 220 kV Tashiding - New Melli S/C and 220 kV Tashiding - Rangpo S/C tripped from Tashiding end only on Y phase to earth fault.	0	110
18	GD-1	30-05- 2020	19:22	ISTS	At 19:22 hrs 400 kV Barh – Motihari – 2 tripped due to Y phase to earth fault. The tripping has led to loss of supply to Betiya and Motihari as being the single source of supply causing Grid Disturbance 1 (GD-1) category event	126	0
19	GD-1	30-05- 2020	22:05	ISTS	At 22:05 hrs 400 kV Barh – Motihari – 2 tripped due to Y phase to earth fault. The tripping has led to loss of supply to Motihari as being the single source of supply causing Grid Disturbance 1 (GD-1) category event.	0	0

<sup>3)</sup> Details of Multiple tripping incidences of transmission line for month of May 2020 is enclosed at **Annexure-1.** 

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 <a href="https://www.erpc-protectiondb.in">www.erpc-protectiondb.in</a>.

Your participation in the meeting is highly solicited.

Yours faithfully,

S. Kejriwal MS(IC)

# LIST OF ADDRESSES:

Chief Engineer, Trans (O&M)	Electrical Superintending Engineer (CRITL)
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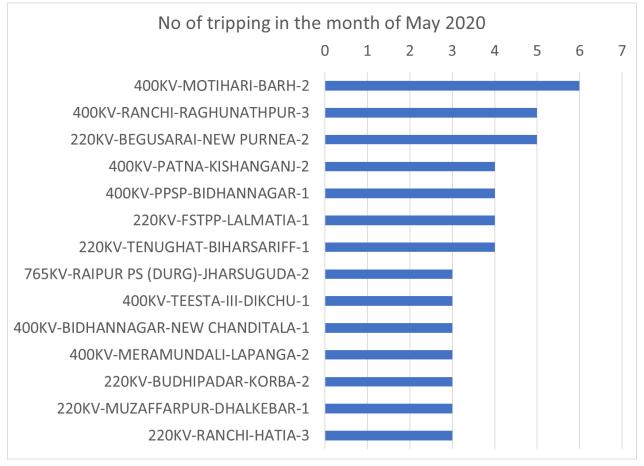
# CC:

ASSISTANT SECRETARY, ERPC	
ASSISTANT SECRETART, ERFC	

# Repeated tripping of transmission lines in the month of May 2020

Annexure -1

No of tripping reported for transmission lines having voltage level 220 kV and above and tripped more than two times in the month of May 2020



<sup>\*</sup> Tripping of 400 kV Barh – Motihari resulted repeated GDs at Motihari and load loss in nearby areas

# Repeated tripping incidents of transmission lines due to same reason during May 2020

Repeated tripping incidents due to same reason					
Name of the line	Reason	No of tripping			
	Y phase to earth fault at 119km to 123 km				
400KV-MOTIHARI-BARH-2	from Motihari	5			
400KV-RANCHI-RAGHUNATHPUR-3	R phase fault at various location	4			
220KV-BEGUSARAI-NEW PURNEA-2	Various fault at 32 - 44 km from Begusarai	5			
	Y and B phase fault at 208 km from				
400KV-PATNA-KISHANGANJ-2	Kishangunj	3			