



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
14 Golf Club Road, Tollygunj, Kolkata-700033

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NO. ERPC/PROTECTION/2019/8736-8779

DATE: 04.02.2019

FAX MESSAGE NO. -543

To,

As per list enclosed.

Sub: Notice for 76th Protection Coordination sub-Committee (PCC) meeting of ERPC

Notice is hereby given that **76th PCC meeting** of ERPC will be held on **14th February 2019 (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 75th Protection sub-Committee Meeting of ERPC
- 2) Analysis of following grid disturbances of January, 2019:

Sr No	GD/ GI	Date	Time	S/S involved	Summary	Load loss (MW)	Gen loss (MW)
1	GI-II	05-01-2019	06:56	Muzaffarpur	400 kV Muzaffarpur - Gorakhpur D/C & 400 kV Bus II at Muzaffarpur tripped	0	0
2	GD-I	05-01-2019	10:51	New Bargarh	At 10:52 hrs,160 MVA 220/132 kV ATR - I tripped on REF, differential protection at New Bargarh S/S. Simultaneously B/B protection operated at New Bargarh S/S which led the tripping of 220 kV New Bargarh - New Bolangir S/C, 220 kV New Bargarh - Katapalli S/C and 220/132 kV 160 MVA ATR - II followed by station black out of 220 kV New Bargarh and New Bolangir S/S	100	0
3	GD-I	05-01-2019	11:20	Bodhgaya	220 kV Gaya - Bodhgaya D/C and 220 kV Gaya Khijasarai D/C tripped on Y-B fault on both sides. At the same time, 220 kV Bodhgaya- Khijasarai D/C tripped from Khijasarai end.	150	0
4	GI-II	06-01-2019	20:34	New Jalpaiguri	220KV NJP-TLDP IV-II, 220KV BINAGURI-NJP-I & 220 kV Bus I at NJP tripped	0	0

5	GD-I	07-01-2019	15:40	Katapalli	220 kV Katapalli - Bolangir S/C along with 220 kV Katapalli - Hindalco D/C, 132 kV Katapalli - Burla D/C and 132 kV Katapalli Chiplima D/C tripped due to snapping of R phase jumper of 220 kV Katapalli - Bolangir S/C	0	0
6	GI-II	09-01-2019	12:44	Gaya	220 KV Main Bus II at Gaya tripped at 12:44 Hrs along with '400/220 KV 315 MVA ICT II at Gaya, 220 KV Gaya-Khijasarai II, 220 KV Gaya-Sonenagar II, 220 KV Gaya-Dehri I, 220 KV Gaya-Bodhgaya I & 220 KV Bus Coupler at Gaya	0	0
7	GI-I	21-01-2019	02:29	Bakreswar	220 kV bus II along with 400/220 kV ICT II at Bakreswar, 220 kV Bakreswar - Bidhannagar - II, 220 kV Barkreswar - Sadai - II, 220 kV Bakreswar - Bidhannagar - II tripped due to CT burst of 220 kV Bakreswar - Bidhannagar - II at Bidhannagar end.	0	0
8	GD-I	23-01-2019	12:33	Hazipur	All lines emanating from Hazipur tripped due to fire hazard in 220 kV GIS bay of Amnour at Hazipur due to SF6 gas leakage.	124	0

4) Single line tripping incidences of January-2019 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.

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, (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., Loknayak 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.

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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Annexure-I

SI No	Tripping Date&Time	Element Type	Element Name	From Owner	From Station	FIR(F)	DR(F)	EL(F)	To Owner	To Station	FIR(T)	DR(T)	EL(T)
1	29-01-2019 11:24:00	Transmission Line	220 KV-SASARAM 765KV-220 KV-SAHUPURI-1	POWERGRID	220 KV-SASARAM 765KV	✗	✗	✗	NORTHERN REGION	220 KV-SAHUPURI	✗	✗	✗
2	28-01-2019 02:56:00	Transmission Line	400 KV-STERLITE400KV -400 KV-LAPANGA 400KV-2	VEDANTA LTD	400 KV-STERLITE400KV	✗	✗	✗	OPTCL	400 KV-LAPANGA 400KV	✗	✗	✗
3	28-01-2019 02:13:00	Transmission Line	400 KV-Talcher super thermal power 21/400-400 KV-BISRA(ROURKELA PGCIL) 400KV-1	NTPC	400 KV-Talcher super thermal power 21/400	✗	✗	✗	POWERGRID	400 KV-BISRA(ROURKELA PGCIL) 400KV	✗	✗	✗
4	27-01-2019 06:47:00	Transmission Line	400 KV-BARH 400kv-400 KV-PATNA 400KV-1	NTPC	400 KV-BARH 400kv	✗	✗	✗	POWERGRID	400 KV-PATNA 400KV	✗	✗	✗
5	27-01-2019 06:41:00	Transmission Line	765 KV-GAYA 765KV-765 KV-BALIA-1	POWERGRID	765 KV-GAYA 765KV	✗	✗	✗	NORTHERN REGION	765 KV-BALIA	✗	✗	✗
6	27-01-2019 06:18:00	Transmission Line	400 KV-PATNA 400KV-400 KV-BALIA-1	POWERGRID	400 KV-PATNA 400KV	✗	✗	✗	NORTHERN REGION	400 KV-BALIA	✗	✗	✗
7	26-01-2019 20:41:00	Transmission Line	400 KV-KAHALGAON 400kv-400 KV-LAKHISARAI 400KV-2	NTPC	400 KV-KAHALGAON 400kv	✗	✗	✗	POWERGRID	400 KV-LAKHISARAI 400KV	✗	✗	✗
8	25-01-2019 22:47:00	Transmission Line	765 KV-SASARAM 765KV-765 KV-FATEHPUR-1	POWERGRID	765 KV-SASARAM 765KV	✗	✗	✗	NORTHERN REGION	765 KV-FATEHPUR	✗	✗	✗
9	25-01-2019 14:51:00	Bus	132 KV-BIHARSHARIFF 220KV--1	BSPTCL	132 KV-BIHARSHARIFF 220KV	✓	✗	✗					
10	25-01-2019 08:35:00	Transmission Line	765 KV-SASARAM 765KV-765 KV-FATEHPUR-1	POWERGRID	765 KV-SASARAM 765KV	✗	✗	✗	NORTHERN REGION	765 KV-FATEHPUR	✗	✗	✗
11	23-01-2019 14:21:00	Transmission Line	220 KV-Dalkhola 220kv-220 KV-DALKHOLA 220KV-2	WBSETCL	220 KV-Dalkhola 220kv	✗	✗	✗	POWERGRID	220 KV-DALKHOLA 220KV	✗	✗	✗
12	23-01-2019 12:35:00	Transmission Line	220 KV-HAZIPUR NEW 220KV-220 KV-AMNOUR220KV-1	BSPTCL	220 KV-HAZIPUR NEW 220KV	✗	✗	✗	BGCL	220 KV-AMNOUR220KV	✗	✗	✗
13	23-01-2019 12:35:00	Transmission Line	220 KV-HAZIPUR NEW 220KV-220 KV-AMNOUR220KV-1	BSPTCL	220 KV-HAZIPUR NEW 220KV	✗	✗	✗	BGCL	220 KV-AMNOUR220KV	✗	✗	✗
14	23-01-2019 12:35:00	Transmission Line	220 KV-HAZIPUR NEW 220KV-220 KV-AMNOUR220KV-2	BSPTCL	220 KV-HAZIPUR NEW 220KV	✗	✗	✗	BGCL	220 KV-AMNOUR220KV	✗	✗	✗
15	23-01-2019 12:35:00	Transmission Line	220 KV-HAZIPUR NEW 220KV-220 KV-AMNOUR220KV-2	BSPTCL	220 KV-HAZIPUR NEW 220KV	✗	✗	✗	BGCL	220 KV-AMNOUR220KV	✗	✗	✗
16	23-01-2019 12:35:00	Transmission Line	220 KV-MUZAFFARPUR 400KV-220 KV-HAZIPUR NEW 220KV-1	POWERGRID	220 KV-MUZAFFARPUR 400KV	✗	✗	✗	BSPTCL	220 KV-HAZIPUR NEW 220KV	✗	✗	✗
17	23-01-2019 12:35:00	Transmission Line	220 KV-MUZAFFARPUR 400KV-220 KV-HAZIPUR NEW 220KV-2	POWERGRID	220 KV-MUZAFFARPUR 400KV	✗	✗	✗	BSPTCL	220 KV-HAZIPUR NEW 220KV	✗	✗	✗
18	23-01-2019 03:11:00	Transmission Line	220 KV-PANDIABIL 400KV(PGCIL)-220 KV-PURI(SAMANGARA)220KV-1	POWERGRID	220 KV-PANDIABIL 400KV(PGCIL)	✗	✗	✗	OPTCL	220 KV-PURI(SAMANGARA)220KV	✗	✗	✗
19	22-01-2019 11:09:00	Transmission Line	220 KV-GAYA 765KV-220 KV-DEHRI 220KV-1	POWERGRID	220 KV-GAYA 765KV	✗	✗	✗	BSPTCL	220 KV-DEHRI 220KV	✓	📄	📄
20	22-01-2019 01:49:00	Transmission Line	400 KV-Mithon(400/220kv)-400 KV-GAYA 765KV-1	POWERGRID	400 KV-Mithon(400/220kv)	✗	✗	✗	POWERGRID	400 KV-GAYA 765KV	✗	✗	✗
21	21-01-2019 12:05:00	Transmission Line	220 KV-DEHRI 220KV-220 KV-GAYA 765KV-1	BSPTCL	220 KV-DEHRI 220KV	✓	📄	📄	POWERGRID	220 KV-GAYA 765KV	✗	✗	✗
22	21-01-2019 02:29:00	Transmission Line	220 KV-Brakeswar TPS 400kv-220 KV-BIDHANNAGAR/DURGAPR 400KV-2	WBPDCL	220 KV-Brakeswar TPS 400kv	✓	✗	📄	WBSETCL	220 KV-BIDHANNAGAR/DURGAPR	✗	✗	✗
23	21-01-2019 02:29:00	Transmission Line	220 KV-Brakeswar TPS 400kv-220 KV-SGTPP 400KV-2	WBPDCL	220 KV-Brakeswar TPS 400kv	✓	📄	📄	WBSETCL	220 KV-SGTPP 400KV	✗	✗	✗

24	21-01-2019 02:29:00	Transmission Line	220 KV-Brakeswar TPS 400kV-220 KV-Satgachia 220KV-2	WBPDCL	220 KV-Brakeswar TPS 400kV	✓	📄	📄	WBSETCL	220 KV-Satgachia 220kV	✗	✗	✗
25	21-01-2019 02:29:00	Bus	220 KV-Brakeswar TPS 400kV--2	WBPDCL	220 KV-Brakeswar TPS 400kV	✓	✗	✗	WBSETCL		✗	✗	✗
26	21-01-2019 02:29:00	Transformer	400 KV-Brakeswar TPS 400kV--2	WBPDCL	400 KV-Brakeswar TPS 400kV	✗	✗	✗	WBSETCL		✗	✗	✗
27	20-01-2019 05:54:00	Transmission Line	220 KV-NEW PURNEA 400KV-220 KV-BEGUSARAI 220KV-2	POWERGRID	220 KV-NEW PURNEA 400KV	✗	✗	✗	BSPTCL	220 KV-BEGUSARAI 220KV	✓	✗	✗
28	19-01-2019 18:52:00	Transmission Line	132 KV-B.Garden 132kv-132 KV-Howrah 220kv-1	CESC	132 KV-B.Garden 132kv	✗	✗	✗	WBSETCL	132 KV-Howrah 220kv	✗	✗	✗
29	19-01-2019 18:52:00	Transmission Line	132 KV-B.Garden 132kv-132 KV-Howrah 220kv-2	CESC	132 KV-B.Garden 132kv	✗	✗	✗	WBSETCL	132 KV-Howrah 220kv	✗	✗	✗
30	19-01-2019 18:52:00	Transmission Line	132 KV-SOUTHERN GENERATING AND RECV 132kv-132 KV-Howrah 220kv-1	CESC	132 KV-SOUTHERN GENERATING AND RECV 132kv	✗	✗	✗	WBSETCL	132 KV-Howrah 220kv	✗	✗	✗
31	17-01-2019 14:05:00	Transmission Line	400 KV-RANGPO 400KV-400 KV-DIKCHU-1	POWERGRID	400 KV-RANGPO 400KV	✗	✗	✗	GREENKO	400 KV-DIKCHU	✗	✗	✗
32	17-01-2019 12:40:00	Transmission Line	400 KV-LAPANGA 400KV-400 KV-MERAMUNDALI 400KV-2	OPTCL	400 KV-LAPANGA 400KV	✗	✗	✗	OPTCL	400 KV-MERAMUNDALI 400KV	✗	✗	✗
33	16-01-2019 20:00:00	Transmission Line	400 KV-LAPANGA 400KV-400 KV-STERLITE400KV -2	OPTCL	400 KV-LAPANGA 400KV	✗	✗	✗	VEDANTA LTD	400 KV-STERLITE400KV	✗	✗	✗
34	15-01-2019 13:42:00	Transmission Line	220 KV-TVNL_Tenughat(15.7/220kV)-220 KV-BIHARSHARIFF 220KV-1	TVNL	220 KV-TVNL_Tenughat(15.7/220kV)	✗	✗	✗	BSPTCL	220 KV-BIHARSHARIFF 220KV	✓	📄	📄
35	12-01-2019 11:02:00	Transmission Line	132 KV-BANKA 132KV-132 KV-SULTANGANJ 132KV-1	BSPTCL	132 KV-BANKA 132KV	✗	✗	✗	BSPTCL	132 KV-SULTANGANJ 132KV	✓	✗	✗
36	12-01-2019 11:00:00	Transmission Line	400 KV-Farakka(400/220/15.75)-400 KV-KAHALGAON 400kV-3	NTPC	400 KV-Farakka(400/220/15.75)	✗	✗	✗	NTPC	400 KV-KAHALGAON 400kV	✗	✗	✗
37	11-01-2019 06:38:00	Transmission Line	132 KV-KAHALGAON 132KV-132 KV-Lalmatia(220/132/33kV)-1	BSPTCL	132 KV-KAHALGAON 132KV	✓	✗	✗	JUSNL	132 KV-Lalmatia(220/132/33kV)	✗	✗	✗
38	11-01-2019 06:38:00	Transmission Line	132 KV-KAHALGAON 400kV-132 KV-Lalmatia(220/132/33kV)-1	NTPC	132 KV-KAHALGAON 400kV	✗	✗	✗	JUSNL	132 KV-Lalmatia(220/132/33kV)	✗	✗	✗
39	11-01-2019 02:34:00	Transmission Line	220 KV-SASARAM 765KV-220 KV-SAHUPURI-1	POWERGRID	220 KV-SASARAM 765KV	✗	✗	✗	NORTHERN REGION	220 KV-SAHUPURI	✗	✗	✗
40	10-01-2019 16:51:00	Transmission Line	400 KV-JAMSHEDPUR 400/220KV-400 KV-Durgapur steel TPS 21/400kV-2	POWERGRID	400 KV-JAMSHEDPUR 400/220KV	✗	✗	✗	DVC	400 KV-Durgapur steel TPS 21/400kV	✗	✗	✗
41	09-01-2019 18:03:00	Transmission Line	400 KV-BIHARSHARIFF 400KV-400 KV-BALIA-1	POWERGRID	400 KV-BIHARSHARIFF 400KV	✗	📄	✗	NORTHERN REGION	400 KV-BALIA	✗	✗	✗
42	09-01-2019 12:46:00	Transmission Line	400 KV-JEERAT 400kV-400 KV-Brakeswar TPS 400kV-1	WBSETCL	400 KV-JEERAT 400kV	✗	✗	✗	WBPDCL	400 KV-Brakeswar TPS 400kV	✗	📄	📄
43	09-01-2019 12:44:00	Transmission Line	220 KV-DEHRI 220KV-220 KV-GAYA 765KV-1	BSPTCL	220 KV-DEHRI 220KV	✗	✗	✗	POWERGRID	220 KV-GAYA 765KV	✗	✗	✗
44	09-01-2019 12:44:00	Transmission Line	220 KV-GAYA 765KV-220 KV-BODHGAYA 220KV-1	POWERGRID	220 KV-GAYA 765KV	✗	✗	✗	BSPTCL	220 KV-BODHGAYA 220KV	✗	✗	✗
45	09-01-2019 12:44:00	Transmission Line	220 KV-GAYA 765KV-220 KV-KHIZISARAI 220KV-2	POWERGRID	220 KV-GAYA 765KV	✗	✗	✗	BGCL	220 KV-KHIZISARAI 220KV	✗	✗	✗
46	09-01-2019 12:44:00	Transmission Line	220 KV-GAYA 765KV-220 KV-SONENAGAR 220KV-2	POWERGRID	220 KV-GAYA 765KV	✗	✗	✗	BSPTCL	220 KV-SONENAGAR 220KV	✗	✗	✗
47	09-01-2019 11:04:00	Transmission Line	400 KV-Farakka(400/220/15.75)-400 KV-BERAMPUR PG 400kV-2	NTPC	400 KV-Farakka(400/220/15.75)	✗	✗	✗	POWERGRID	400 KV-BERAMPUR PG 400kV	✓	📄	✗
48	09-01-2019 15:24:00	Transmission	220 KV-PURNEA 220KV-220 KV-BEGUSARAI	POWERGRID	220 KV-PURNEA 220KV	✗	✗	✗	BSPTCL	220 KV-BEGUSARAI 220KV	✓	✗	✗

49	08-01-2019 14:44:00	Transmission Line	220 KV-PURNEA 220KV-220 KV-BEGUSARAI 220KV-2	POWERGRID	220 KV-PURNEA 220KV	✗	✗	✗	BSPTCL	220 KV-BEGUSARAI 220KV	✓	✗	✗
50	08-01-2019 10:35:00	Transmission Line	220 KV-GAYA 765KV-220 KV-SONENAGAR 220KV-2	POWERGRID	220 KV-GAYA 765KV	✗	✗	✗	BSPTCL	220 KV-SONENAGAR 220KV	✓	✗	📄
51	08-01-2019 09:24:00	Transmission Line	400 KV-INDRAVATI 400KV-400 KV-Upper Indravati hydro electric project (HPS)11/220-1	POWERGRID	400 KV-INDRAVATI 400KV	✗	✗	✗	OHPC	400 KV-Upper Indravati hydro electric project (HPS)11/220	✗	✗	✗
52	07-01-2019 15:32:00	Transmission Line	220 KV-KATAPALLI220KV-220 KV-Hindalco-1		220 KV-KATAPALLI220KV					220 KV-Hindalco			
53	07-01-2019 15:32:00	Transmission Line	220 KV-KATAPALLI220KV-220 KV-Hindalco-1		220 KV-KATAPALLI220KV					220 KV-Hindalco			
54	07-01-2019 15:32:00	Transmission Line	220 KV-KATAPALLI220KV-220 KV-Hindalco-2		220 KV-KATAPALLI220KV					220 KV-Hindalco			
55	07-01-2019 15:32:00	Transmission Line	220 KV-KATAPALLI220KV-220 KV-Hindalco-2		220 KV-KATAPALLI220KV					220 KV-Hindalco			
56	07-01-2019 15:32:00	Transmission Line	220 KV-KATAPALLI220KV-220 KV-BOLANGIR 400KV-1	OPTCL	220 KV-KATAPALLI220KV	✓	📄	📄	POWERGRID	220 KV-BOLANGIR 400KV	✗	✗	✗
57	07-01-2019 14:19:00	Transmission Line	400 KV-Kharagpur 400KV-400 KV-Chaibasa(400/220kV)-2	WBSETCL	400 KV-Kharagpur 400kV	✗	✗	✗	POWERGRID	400 KV-Chaibasa(400/220kV)	✗	📄	✗
58	07-01-2019 02:29:00	Transmission Line	400 KV-KISHANGANJ 400KV-400 KV-Teesta III-2	POWERGRID	400 KV-KISHANGANJ 400KV	✗	✗	✗	TUL	400 KV-Teesta III	✓	📄	📄
59	07-01-2019 00:04:00	Transmission Line	220 KV-BUDHIPADAR220KV-220 KV-KORBA EAST_CSPGCL-2	OPTCL	220 KV-BUDHIPADAR220KV	✗	✗	✗	WESTERN REGION	220 KV-KORBA EAST_CSPGCL	✗	✗	✗
60	06-01-2019 20:34:00	Transformer	132 KV-New Jalpaiguri 220kV--1	WBSETCL	132 KV-New Jalpaiguri 220kV	✗	✗	✗					
61	06-01-2019 20:34:00	Transmission Line	220 KV-New Jalpaiguri 220KV-220 KV-Binaguri 400 Kv-1	WBSETCL	220 KV-New Jalpaiguri 220kV	✗	✗	✗	POWERGRID	220 KV-Binaguri 400 Kv	✗	✗	✗
62	06-01-2019 20:34:00	Bus	220 KV-New Jalpaiguri 220kV--2	WBSETCL	220 KV-New Jalpaiguri 220kV	✗	✗	✗	NHPC		✗	✗	✗
63	06-01-2019 20:34:00	Bus	220 KV-New Jalpaiguri 220kV--1	WBSETCL	220 KV-New Jalpaiguri 220kV	✗	✗	✗					
64	06-01-2019 11:51:00	Transmission Line	220 KV-DEHRI 220KV-220 KV-GAYA 765KV-1	BSPTCL	220 KV-DEHRI 220KV	✓	✗	📄	POWERGRID	220 KV-GAYA 765KV	✗	✗	✗
65	05-01-2019 16:47:00	Transformer	315 MVA, 400/220 KV transformer- 2	WBSETCL	220 KV-Arambag 400kV	✗	✗	✗					
66	05-01-2019 11:20:00	Transmission Line	220 KV-GAYA 765KV-220 KV-BODHGAYA 220KV-1	POWERGRID	220 KV-GAYA 765KV	✗	📄	✗	BSPTCL	220 KV-BODHGAYA 220KV	✓	📄	📄
67	05-01-2019 11:20:00	Transmission Line	220 KV-GAYA 765KV-220 KV-BODHGAYA 220KV-2	POWERGRID	220 KV-GAYA 765KV	✗	📄	✗	BSPTCL	220 KV-BODHGAYA 220KV	✓	📄	📄
68	05-01-2019 11:20:00	Transmission Line	220 KV-GAYA 765KV-220 KV-KHIZISARAI 220KV-1	POWERGRID	220 KV-GAYA 765KV	✗	✗	✗	BGCL	220 KV-KHIZISARAI 220KV	✗	✗	✗
69	05-01-2019 11:20:00	Transmission Line	220 KV-GAYA 765KV-220 KV-KHIZISARAI 220KV-2	POWERGRID	220 KV-GAYA 765KV	✗	✗	✗	BGCL	220 KV-KHIZISARAI 220KV	✗	✗	✗
70	05-01-2019 11:20:00	Transmission Line	220 KV-GAYA 765KV-220 KV-KHIZISARAI 220KV-3	POWERGRID	220 KV-GAYA 765KV	✗	✗	✗	BGCL	220 KV-KHIZISARAI 220KV	✗	✗	✗
71	05-01-2019 10:51:00	Transformer	132 KV-NEW BARAGARH220KV--1	OPTCL	132 KV-NEW BARAGARH220KV	✗	📄	✗	OPTCL		✗	✗	✗
72	05-01-2019 10:51:00	Transmission Line	220 KV-NEW BARAGARH220KV-220 KV-KATAPALLI220KV-1	OPTCL	220 KV-NEW BARAGARH220KV	✗	✗	✗	OPTCL	220 KV-KATAPALLI220KV	✗	✗	✗
73	05-01-2019 10:51:00	Bus	220 KV-NEW BARAGARH220KV--1	OPTCL	220 KV-NEW BARAGARH220KV	✗	📄	✗	OPTCL		✗	✗	✗
74	05-01-2019 10:51:00	Transformer	220 KV-NEW BARAGARH220KV--2	OPTCL	220 KV-NEW BARAGARH220KV	✗	📄	📄	OPTCL		✗	✗	✗

75	05-01-2019 08:07:00	Transmission Line	220 KV-NEW PURNEA 400KV-220 KV-BEGUSARAI 220KV-1	POWERGRID	220 KV-NEW PURNEA 400KV	✗	✗	✗	BSPTCL	220 KV-BEGUSARAI 220KV	✓	✗	✗
76	05-01-2019 06:56:00	Transmission Line	400 KV-MUZAFFARPUR 400KV-400 KV-GORAKHPUR-1	POWERGRID	400 KV-MUZAFFARPUR 400KV	✗	✗	✗	NORTHERN REGION	400 KV-GORAKHPUR	✗	✗	✗
77	05-01-2019 06:56:00	Transmission Line	400 KV-MUZAFFARPUR 400KV-400 KV-GORAKHPUR-2	POWERGRID	400 KV-MUZAFFARPUR 400KV	✗	✗	✗	NORTHERN REGION	400 KV-GORAKHPUR	✗	✗	✗
78	05-01-2019 06:56:00	Bus	400 KV-MUZAFFARPUR 400KV--2	POWERGRID	400 KV-MUZAFFARPUR 400KV	✗	✗	✗					
79	05-01-2019 05:07:00	Transmission Line	400 KV-MUZAFFARPUR 400KV-400 KV-GORAKHPUR-1	POWERGRID	400 KV-MUZAFFARPUR 400KV	✗	✗	✗	NORTHERN REGION	400 KV-GORAKHPUR	✗	✗	✗
80	05-01-2019 04:48:00	Transmission Line	400 KV-DMTCL MOTIHARI 400/132kv-400 KV-GORAKHPUR-2	DMTCL	400 KV-DMTCL MOTIHARI 400/132kv	✗	✗	✗	NORTHERN REGION	400 KV-GORAKHPUR	✗	✗	✗
81	05-01-2019 04:40:00	Transmission Line	400 KV-MUZAFFARPUR 400KV-400 KV-GORAKHPUR-2	POWERGRID	400 KV-MUZAFFARPUR 400KV	✗	✗	✗	NORTHERN REGION	400 KV-GORAKHPUR	✗	✗	✗
82	03-01-2019 22:39:00	Transmission Line	220 KV-NEW PURNEA 400KV-220 KV-BEGUSARAI 220KV-2	POWERGRID	220 KV-NEW PURNEA 400KV	✗	✗	✗	BSPTCL	220 KV-BEGUSARAI 220KV	✓	✗	✗
83	03-01-2019 03:59:00	Transmission Line	220 KV-Santaldih TPS 220kv-220 KV-Chandil(220/132kv)-1	WBPDC	220 KV-Santaldih TPS 220kv	✓	✗	✗	JUSNL	220 KV-Chandil(220/132kv)	✗	✗	✗
84	02-01-2019 14:20:00	Transmission Line	132 KV-KAHALGAON 400kv-132 KV-SABOUR 132KV-1	NTPC	132 KV-KAHALGAON 400kv	✗	✗	✗	BSPTCL	132 KV-SABOUR 132KV	✗	✗	✗
85	01-01-2019 17:11:00	Transmission Line	220 KV-TVNL_Tenughat(15.7/220kv)-220 KV-BIHARSHARIFF 220KV-1	TVNL	220 KV-TVNL_Tenughat(15.7/220kv)	✗	✗	✗	BSPTCL	220 KV-BIHARSHARIFF 220KV	✓	✗	✗
86	01-01-2019 16:59:00	Transmission Line	220 KV-Santaldih TPS 220kv-220 KV-Chandil(220/132kv)-1	WBPDC	220 KV-Santaldih TPS 220kv	✓	✗	✗	JUSNL	220 KV-Chandil(220/132kv)	✗	✗	✗
87	01-01-2019 09:46:00	Transmission Line	132 KV-KAHALGAON 400kv-132 KV-KAHALGAON 132KV-1	NTPC	132 KV-KAHALGAON 400kv	✗	✗	✗	BSPTCL	132 KV-KAHALGAON 132KV	✗	✗	✗
88	01-01-2019 09:46:00	Transmission Line	132 KV-Lalmatia(220/132/33kv)-132 KV-KAHALGAON 400kv-1	JUSNL	132 KV-Lalmatia(220/132/33kv)	✗	✗	✗	NTPC	132 KV-KAHALGAON 400kv	✗	✗	✗
89	01-01-2019 02:52:00	Transmission Line	220 KV-Santaldih TPS 220kv-220 KV-Chandil(220/132kv)-1	WBPDC	220 KV-Santaldih TPS 220kv	✓	✗	✗	JUSNL	220 KV-Chandil(220/132kv)	✗	✗	✗