

## Annexure-A

PSERC Directives Sr. No. 4.2 (Loading Status of PSTCL Transmission Lines and Sub-station)2<sup>nd</sup> Quarter (ending September-2022)

Sr no.	P&M Circle	Name of transmission line	% loading as compared with the standard design parameters of conductors i.e. 45°C Ambient temperature and 75°C Conductor temperature.	Remarks of P&M Organization	Proposal /remedial action by planning
1.	Amritsar (CP- 31/10)	132KV Sarna-Gurdaspur	342 A at 30°C Ambient temperature (106.88%)	Line is overloaded and is being operated by opening 132 kv Dwl-Batala D/C link, still loading is 106.67%	Will be controlled with the advent of 220 kV Gurdaspur, already planned.
2.	Jalandhar (CP-31/6)	132 KV Hamirpur-Chohal	428 A at 34°C Ambient temperature (112.34%)	Due to Paddy	Will be resolved upon shifting of some of 132 kV load onto 220 kV Hoshiarpur, already included in the MYT 2023-26, under approval.
3.	Ludhiana (CP-31/3)	220KV G 1 - Rajpura Ckt -1	650 A at 36°C Ambient temperature (116.07%)	Temporary Load	HTLS already planned.
		220KV G 1 - Rajpura Ckt-2	650 A at 36°C Ambient temperature (116.07%)	Temporary Load	
		220KV Dhandari-PGCIL	585 A at 33°C Ambient temperature (104%)	Due to Paddy	Will be resolved after reorientation of 220 kV Dhandari Kalan from 220 kV Lalton Kalan to 400 kV PGCIL Ludhiana, already planned.
		220KV Lalton-Ferozepur Road.	601 A at 36°C Ambient	Existing Load	Remedial measure under study

			temperature (107%)		
		220KV Badhani- PGCIL Moga	654 A at 30°C Ambient temperature (117.00%)	Temporary Load	Remedial measure under study
		220KV Himmatpura- Badhni Kalan	616 A at 30°C Ambient temperature (110.00%)	Temporary Load	Remedial measure under study
		132KV Ferozeshah - Kotkaror	376 A at 45°C Ambient temperature (117.50%)	Temporary Load	Will be controlled with the advent of 220 kV Jhoke Harihar, already planned.
4.	Patiala (CP-31/2)	220kv Faggan majra- Bahadurgarh	659 A at 30°C Ambient temperature (117.68%)	Temporary due to paddy season	Will be resolved after implementation of already approved rearrangement of transmission lines in Rajpura region, already planned.
		220 kV Rajpura- Fagan Majra	580 A at 31°C Ambient temperature (103.57%)	Temporary due to paddy season	
		220KV Nalagarh- Mohali I-Ckt-I	575 A at 28°C Ambient temperature (102.68%)	Existing load or paddy load	Will be resolved after implementation of 220 kV D/C between 400 kV Panchkula and 220 kV Dera Bassi, already included in the MYT 2023-26, under approval.
		220KV Nalagarh- Mohali I-Ckt-II	575 A at 28°C Ambient temperature (102.68%)	Existing load or paddy load	
		220 KV Patran- Banvala ckt1	572 A at 33°C Ambient temperature (102.14%)	Temporary due to paddy season	Remedial measure under study
		220 KV Patran- Banvala ckt2	572 A at 33°C Ambient temperature (102.14%)	Temporary due to paddy season	Remedial measure under study
		220 KV Patran- Sunam	560 A at 34°C Ambient temperature (100%)	Temporary due to paddy season	Will be resolved after LILO of 220 kV Sunam – Mansa at 400 kV Patran, already planned.
		220 KV Sunam- Mansa Ckt	589 A at 31°C Ambient temperature (105.18%)	Temporary due to paddy season	

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5.	Bathinda (CP-31/7 & 31/8)	Maximum Demand of Power Transformers For the 2nd quarter (July 2022 to Sept 2022 ) in respect of P&M Circle Bathinda. (CP-31/7)			
		Name of Sub-Station	% loading as compared with the standard design, parameters of conductors	Remarks of P&M Organization	Proposal /remedial action by planning
		220KV SS MOGA 132/11kV	100.25%	Existing	Will be resolved with shifting of load onto 66/11 kV transformer at 220 kV Moga, already included in the MYT 2023-26, under approval.
		Maximum Demand of Transmission Lines For the 2nd quarter (July 2022 to Sept 2022 ) in respect of P&M Circle Bathinda (CP-31/8)			
Name of Feeder / Line	% loading as compared with the standard design parameters of conductors i.e. 45°C Ambient temperature and 75°C Conductor temperature.	Remarks of P&M Organization	Proposal /remedial action by planning		
132 kV Feroze Shah - Kotkaror	376 A at 45°C Ambient temperature (118%)	normal condition, line is overloaded.	Will be controlled with the advent of 220 kV Jhoke Harihar, already planned.		
220 KV Mansa-Sunam	592 A at 30°C Ambient temperature (106%)	existing	Will be resolved after LILO of 220 kV Sunam – Mansa at 400 kV Patran, already planned.		
220 kV Muktsar-Katorewala ckt. (From 400 kV S/S Shri Muktsar Sahib)	642.56 A at 27°C Ambient temperature (115%)	existing	Will be resolved after advent of 220 kV Bhalaiana, already included in the MYT 2023 – 26, under approval.		

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Directive Sr. No. 4.4 (Reactive Compensation)

2<sup>nd</sup> Quarter (ending September-2022)

Capacitor Bank:

PSTCL has floated Tender Enquiry for the procurement of various rating of Capacitor Banks around the capacity of 700 MVAR for the planned works and as per the requirement of the P&M wing.

Further, the PSTCL has started the installation of available 132kV Capacitor Banks at the various S/Stns. of PSTCL.

Reactors:

PSTCL has placed order for the supply and installation of 1 no. 125MVAR, 400kV Bus-Reactor at 400kV S/S Dhuri and 2 nos. 25MVAR, 220kV Bus-Reactors at 400kV Dhuri and Nakodar each and the installation work for the same is under process.

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization											
Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
<b>P&amp;M Circle Amritsar</b>											
1	220KV Sama-RSD Ckt-3	23.7.22	9.42	23.7.22	11.00	1.18	Main 1 CN Phase Zone -1	Trip ckt supervision Tc2-c 295c, voltage balance 160,360 relays.	Due to heavy lightning in the region	Due to heavy lightning in the region	
2	220KV Sama-RSD Ckt-4	23.7.22	9.42	23.7.22	10.56	0.14	Main 1 AN Phase Zone -1	DPR ( zone1, all phase tripped, location 12.7km, fault current (A: 5.074KA, B-66.6A, C-788.6A), 66B5C	Due to heavy lightning in the region	Due to heavy lightning in the region	
3	220KV Sama-Tibber	25.7.22	19.00	26.7.22	16.38	21.38	Main 1 DPR Relay	Breaker not tripped	control cable short and R phase limb tripping coil short of breaker	the damage control cable is traced and short tripping coil of R Phase Limb is replaced with new one, the line is energized with the instruction of PC Patela	
4	220KV Sama-Wadala Grantham Ckt-1	3.8.22	12.07	4.08.22	0.34	12.27	Main 1 DPR trip C Zone 1	Main 2 Phase CN zone 1	Between tower no 47 to 48 220kv Sama-WG ckt 4 B phase Jumper burnt	The B-phase jumper is burnt b/w Tower No. 47 & 48 of 220kv Sama ckt 4. Burnt jumper was rectified by AE/TL Batala with PTW NO. 99	
5	220KV Sama-Wadala Grantham Ckt-4	3.8.22	12.07	3.8.22	17.56	12.27	Main 1 DPR trip A Zone 1	Main 2 Phase CN zone 1	Between tower no 47 to 48 220kv Sama-WG ckt 4 B phase Jumper burnt		
6	220kv Naraingarh-Balechak CM 2	3.8.22	12.32	3.8.22	15.32	3.00	Main 2 Operated fault type B.G location=5.6km	Breaker not Tripped	Due to some transient fault	As per instruction of PC Patela ckt energized, it is clear that there is some transits fault in line.	

Detail Of Tripping / Breakdowns of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
7	220KV Fatehgarh Chunan- Civiline	18.08.22	9.05	18.08.22	11.30	2.21	etc EF 67N	Breaker not Tripped	Due to some transient fault	As per instruction of PC Patela ckt energized. It is clear that there is some transient fault in line. Tripped due to heavy jerk from Wadala Granthiya end as Rph Wavetrup jumper got broken of Wadala Granthiya - Kolt Sural Mahi Ckt	
8	220KV Wadala Granthian- Fatehgarh Chunan	18.08.22	9.02	18.08.22	12.08	3.06	Bus Bar Relay operated AT 220kv S/S WG	not tripped	Due to Malfunctioning of bus bar relay	Due to Malfunctioning of bus bar relay so that's why Bus Bar Protection relay operated and 220kv WG-FCG Line trip. line energised after clearance certificate of GSP Protection	
9	220kv K S Mahi Wadala Granthian	18.08.22	9.04	18.08.22	12.36	3.32	Main2 Protection operated autoreclose	DPR Trip 188A, 188B	220kv R phase wavetrup Clamp at 220KV Wadala Granthian	Due to damage wavetrup jumper of R phase end had been repaired with PTW No. 16 on Dated 18.08.22	
10	220KV Verpal-Udhoke	20.08.22	15.02	20.08.22	15.30	0.28	E/F General Trip	not tripped	Due to some transient fault	line was not tripped and remain charged from udhoke end. line is reenergised with the instructions of PC Patela from Verpal End	
11	220KV Wadala Granthian-Sama Ckt-1	20.08.22	14.59	21.08.22	19.29	28.30	Main 1 DPR Zone 1 Phase A main 2 DPR VT fail Zone 1 R phase	not tripped	At Tower No 166 R phase Conductor end cone broken	Due to damaged compression clamp of R-Phase at Tower No. 166 which had been repaired by AE/TL with PTW No. 20 and line energised after clearance certificate of related TL & instructions of PC Patela	
12	220kv Majitha F. G. Chunan Ckt	24.8.22	0.35	24.08.22	5.01	4.26	Bus Bar protection operated Master trip 85	Breaker not Tripped	Due to 66kv Majitha Nagkola Ckt 1 Breaker Damaged	66KV SF6 Circuit breaker got damaged of 66KV Nagkola ckt no 1 due to which bus bar protection operated and blackout occurs at 220KV Majitha. breaker tripped from Majitha end only. Backfeeding taken from 66KV Nagkola ckt no 2 & under supervision of higher officials bus bar charged	
13	220kv Majitha Civil Line Ckt	24.8.22	0.35	24.08.22	5.01	4.26	Bus Bar protection operated Master trip 85	Breaker not Tripped			

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks	
		Date	Time	Date	Time		This End	That End				
14	220KV Fatehpur Chauran- Cvrline	16.09.22	6.05	16.09.22	6.45	0.40	EF master trip 86	Breaker not Tripped	Due to some transient fault	Due to some transient fault line. Thereafter these lines patrolled on dated 17.09.2022. No abnormality found		
15	220kv Majha Civil Line Ckt	16.09.22	5.55	16.09.22	6.15	0.20	DPR Zone 1&2 Master Trip 86	Breaker not Tripped	Due to some transient fault			
16	220kv Chogawan Civil line	16.09.22	5.52	16.09.22	6.39	0.47	DPR Y phase Zone 1	ckt EF Master Trip 86	Due to some transient fault			
17	220kv Khassa Civil Line	16.09.22	5.52	16.09.22	6.45	0.53	DPR RYB Zone 3 Master Trip 86	Breaker not tripped	Due to some transient fault			
18	220kv Verpal-Botechak ckt. 1	18.09.22	12.15	18.09.22	18.30	6.15	Bus Bar protection operated at 220kv S/S Verpal	Breaker Not Tripped	Wild bushes come in contact with R-phase 220kv Bus Bar induction Zone at 220kv S/S Verpal and all ckt breaker got tripped	Wild bushes come in contact with R phase 220kv bus bar induction Zone at 220kv S/S Verpal and all ckt breaker got tripped		
19	220kv Verpal-Botechak ckt. 2	18.09.22	12.15	18.09.22	15.10	2.55		Breaker Not Tripped				
20	220kv Verpal-Uthokay	18.09.22	12.15	18.09.22	13.45	1.30		Breaker Not Tripped				
21	220kv Verpal-Wadala Granthian	18.09.22	12.15	18.09.22	13.45	1.30		Breaker Not Tripped				
22	220kv Verpal-Pati	18.09.22	12.15	18.09.22	18.40	6.25		Breaker Not Tripped				
23	220kv Verpal-Rashiana	18.09.22	12.15	18.09.22	19.10	6.55		Breaker Not Tripped				
24	220kv Verpal-Butan	18.09.22	12.15	18.09.22	18.50	6.35		Breaker Not Tripped				




Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
25	220kv Verpal-Balachak ckt 2	20.9.2022	9.18	20.9.22	13.03	3.45	DPR RYB Zone 1	Breaker not tripped	Due to some transient fault	misoperation of relays at Verpal substation due to problem in CVT/PT secondary supply. Which is set right by Protection Team Asr.	
26	132KV Verka-Jandiala	21.6.22	9.38	22.7.22	12.55	747.37	Distance protection relay SDP 1 Master Trip 86	Erf. Fault Current 966A	due to bad weather Disc string lashed of RYB phase after taking shutdown of crossing railway line disc string changed by reated AOTL and line energised	Total estimate for replacement of damaged disc insulators of 132KV verka jandiala line was 1770000/- as per letter no 63 from Sr Divisional Electrical engineer/G N Jy Firazpur. It arranged with this office letter no 1757 on 15-07-2022 under GH 74.5 by approval of higher authorities. then by demand draft payment was made and block availed. Instructed Aee/TI to complete work within stipulated Time	
27	132KV Batala-Kathuanagal	1.7.22	6.01	1.7.22	6.20	0.19	Dr. O/C Red Phase E/F Master Trip 86	Breaker Not Tripped	Due to Bad Weather	Due to bad weather and heavy storm 132kv Batala-kathuanagal line was tripped	
28	132KV Batala-Pakharpura	1.7.22	6.01	1.7.22	6.21	0.20	Dr. O/C Red Phase E/F Master Trip 87	Breaker Not Tripped	Due to Bad Weather	Due to bad weather and heavy storm 132kv Batala-Pakharpura line was tripped	
29	132KV Verka-Pakharpura	1.7.22	6.01	1.7.22	14.20	8.19	R Phase 67R Phase Master Trip	Breaker Not Tripped	Due to Bad Weather at Tower No- 854 R Phase Disc insulator Damaged replaced by AOTL	R Phase Disc insulator Damaged on Tower No:- 854 , After cancelling PTW and Line clearance certificate by Aee/TI Verka ckt energized	
30	132KV Verka-Power Colony	1.7.22	6.01	1.7.22	6.35	0.34	67R Fault Current =606A 67N Fault Current =768A 86 Relay	Breaker Not Tripped	Due to Bad Weather	Due to Transient fault, line tripped, fault is in 132KV Verka - Pakharpura line its R Phase Disc insulator Damaged on Tower No. - 854	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
31	132KV Power Colony-Civiline	1.7.22	6.00	1.7.22	6.30	0.30	67R Fault Current +3632A 67N Fault Current +3912A 86 Relay	dr o/c 67R, of 67N	Due to Bad Weather	Due to Transient fault line tripped, fault is in 132KV Verka - Patkarpura line its R Phase Disc insulator Damaged on Tower No- 855	
32	132KV Civiline-Narangarh	1.7.22	6.00	1.7.22	6.52	0.52	Dr. O/C E/F operated E/F 67N O/C 67R Relay at Narangarh End DPR Operated Red Phase E/F 86	DPR operated Rph, of	Due to Bad Weather	Due to Transient fault line tripped, fault is in 132KV Verka - Patkarpura line its R Phase Disc insulator Damaged on Tower No- 856	
33	132kv Tam Taran-Batal	14.7.22	19.32	15.7.22	3.58	8.26	E/F master Trip 86	Breaker Not Tripped	Earthwire broken between Tower No. 9 to 21	Ckt tripped due to Earth wire broken between TNO 9 to TNO 21. it assembled under PTW 73 Taken from butal end.	
34	132KV Verka-Tam Taran	14.7.22	19.30	14.7.22	19.50	0.20	E/F 86	Breaker Not Tripped	Yard Checked found nothing abnormal	Due to Transient fault line tripped, fault is in 132KV Tamtaran-batal line, its Earthwire Broken between Tower No. 9 to 21	
35	132KV Kathunagal-Batal	14.7.22	12.50	14.7.22	13.00	0.10	DPR Y Phase Zone-1 86	L2 pickup E/F Pickup Dr O/C 86	Due to Bad Weather	Due to bad weather and heavy storm 132kv Batal-Kathunagal line was tripped	
36	132KV Civiline-Narangarh	15.7.22	9.55	15.7.22	10.04	0.09	O/C Red Phase 67R 86	Breaker Not Tripped	Yard Checked found nothing abnormal	Ckt tripped due to some Transient fault, line energized after instructions of PC Patela	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH-MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
37	132KV Civiline-Narasimh	15.7.22	10.26	15.7.22	10.59	0.33	O/C Red Phase 57R 06	Breaker Not Tripped	Yard Checked found nothing abnormal	Ckt tripped due to some Transient fault, line energised after instructions of PC Patela	
38	132KV Hakima Gate- Varpal CH-2	15.7.22	0.57	15.7.22	10.12	0.15	DPR Red Phase Master Trip	Rph-olc general trip	Yard Checked found nothing abnormal	Due to Transient fault, line tripped, fault is in 132KV Hakima Gate-Sakati Bagh line Earth wire broken from Trno 1-Trno2.	
39	132KV Hakima Gate- Varpal CH-2	15.7.22	10.36	15.7.22	10.54	0.18	DPR Red Phase Master Trip	Rph-olc general trip	Yard Checked found nothing abnormal	Due to Transient fault, line tripped, fault is in 132KV Hakima Gate-Sakati Bagh line Earth wire broken from Trno 1-Trno2.	
40	132KV Hakima Gate- Sakati Bagh	15.7.22	0.57	15.7.22	12.40	2.43	RB Phase O/C 06		Due to Tripping of 132KV Hakima Gate-Sakati Bagh line Earth wire broken	132KV Hakima Gate-Sakati Bagh line Earth wire broken from Trno 1-Trno2, if assembled by taking ptw from Aotf JE verka	
41	132KV Kargra-Shahan CM-1	16.7.22	10.27	16.7.22	10.56	0.29	DPR Bus Phase 1,4,5 Zone-1, 06 Relay	ABC Zone-1	A pine tree got uprooted and came in range between span no. 114 & 115.	A pine tree got uprooted and came in range between span no. 114 & 115.	
42	132KV Varpal-Tam Taran	21.7.22	3.14	21.7.22	9.20	6.06	R phase olc High Set	Breaker Not Tripped	Due to Heavy wind Storm and rain	Ckt tripped due to some Transient fault, Due to heavy rainfall tried not taken, also breaker tripped from varpal end only, line energised after instructions of PC Patela	
43	132KV Tam Taran-PatB	21.7.22	3.12	21.7.22	3.52	0.40	Red Phase E/F 06	Breaker Not Tripped		Ckt tripped due to some Transient fault, Breaker tripped from Tamtaran end only, line energised after instructions of PC Patela	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
44	132kv Yam Taran-Sutari	21.7.22	5.04	21.7.22	5.14	0.10	Dr. O/C 67R 86 O/C Red Phase E/F 86	O/C R PHASE E/F Master Trip 86	Due to Heavy wind Storm and rain	Ckt tripped due to some Transient fault, line energised from Sutari end after instructions of PC Patela	
45	132KV Hakima Gate-Sakabri Hagh	2.8.22	12.05	2.8.22	12.10	0.05	E/F	Breaker Not Tripped	Due to some transient fault	As per instruction of PC Patela ckt energized, it is clear that there is some transits fault in line.	
46	132KV Verka-Pakharpara	4.8.22	7.26	4.8.22	7.58	0.30	Dr. E/F 67S O/C Fault Current	Breaker Not Tripped	Due to some transient fault	As per instruction of PC Patela ckt energized, it is clear that there is some transits fault in line.	
47	132KV Batola-Pakharpara	4.8.22	7.28	4.8.22	9.01	1.33	O/C Blue Phase L3 Pickup E/F	Breaker Not Tripped	Due to some transient fault	With the instructions of PC Patela, line is patrolling by AEE/TL Batola but nothing found hence it is a transient fault, after getting clearance certificate from TL and with instructions of PC Patela line is energized	
48	132KV Batola-Wadala Granian Ckt-1	4.8.22	7.28	4.8.22	7.40	0.18	Dr. E/F 86	Breaker Not Tripped	Due to some transient fault	With the instructions of PC Patela, line is patrolling by AEE/TL Batola but nothing found, line is trip due to jerk, after getting clearance certificate from TL and with instructions of PC Patela line is energized	
49	132KV Batola-Wadala Granian Ckt-2	4.8.22	7.28	4.8.22	7.40	0.18	Dr. E/F 86	Breaker Not Tripped	Due to some transient fault	With the instructions of PC Patela, line is patrolling by AEE/TL Batola but nothing found, line is trip due to jerk, after getting clearance certificate from TL and with instructions of PC Patela line is energized	




Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH-MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
50	132KV Wadala Granthan-SHQP CK-1	4.8.22	3.30	4.8.22	3.56	0.26	DPR Razoa STN	Breaker Not Tripped	Due to some transient fault	With the instructions of PC Patela , line is patrolling by AEE/TL Batala but nothing found , line is trip due to jerk ,after getting clearance certificate from TL and with instructions of PC Patela line is energized	
51	132KV Batala Dhanwal CK-1	16.8.22	12.56	16.8.22	13.16	0.20	Dir. GIC E/F 86	DPR Razoa SN Zone 2 Master trip 86	Due to some transient fault	With the instructions of PC Patela , line is patrolling by AEE/TL Batala but nothing found hence it is a transient fault , after getting clearance certificate from TL and with instructions of PC Patela line is energized	
52	132KV Batala Dhanwal CK-2	16.8.22	12.56	16.8.22	13.16	0.20	Dir. GIC E/F 86	DPR Razoa SN zone 2 Master Trip 86	Due to some transient fault	With the instructions of PC Patela , line is patrolling by AEE/TL Batala but nothing found hence it is a transient fault , after getting clearance certificate from TL and with instructions of PC Patela line is energized	
53	132KV Wadala granthan-Batala CK-1	16.8.22	12.56	16.8.22	13.10	0.14	Master Trip 86	Breaker Not Tripped	Due to some transient fault	With the instructions of PC Patela , line is patrolling by AEE/TL Batala but nothing found , line is trip due to jerk ,after getting clearance certificate from TL and with instructions of PC Patela line is energized	
54	132KV Wadala granthan-Batala CK-2	16.8.22	12.56	16.8.22	13.10	0.14	Master Trip 86	Master Trip 86	Due to some transient fault	With the instructions of PC Patela , line is patrolling by AEE/TL Batala but nothing found , line is trip due to jerk ,after getting clearance certificate from TL and with instructions of PC Patela line is energized	
55	132KV Wadala Granthan-SHQP CK-1	16.8.22	12.56	16.8.22	13.02	0.06	DPR Razoa TN	Breaker Not Tripped	Due to some transient fault	With the instructions of PC Patela , line is patrolling by AEE/TL Batala but nothing found , line is trip due to jerk ,after getting clearance certificate from TL and with instructions of PC Patela line is energized	

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration Hr:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
56	132kv Verpal Naraingarh ckt 1	24.08.22	0.10	24.08.22	10.05	0.55	General Trip	DVR EF_NJ2	Due to heavy wind storm and rain	Line Patrolling done by TL Verka team nothing found in line and As per instruction of PC Patil ckt energized	
57	132kv Naraingarh Verpal ckt 2	24.08.22	0.10	24.08.22	1.28	1.18	EF	*****	Due to heavy wind storm and rain	As per instruction of PC Patil ckt energized it is clear that there is some trans fault in line.	
58	132KV Civiline-Naraingarh	24.08.22	0.14	24.08.22	0.45	0.31	Dr O/C 67R EF Master Trip	Breaker Not Tripped	Due to heavy wind storm and rain	As per instruction of PC Patil ckt energized it is clear that there is some trans fault in line.	
59	132KV Civiline-Naraingarh	24.08.22	18.31	24.08.22	16.45	0.14	Dr. O/C EF 86	Breaker Not Tripped	Due to Jerk of 132KV Naraingarh Verpal ckt	Breaker Tripped from 220KV civil Line end only due to Jerk from 132KV Naraingarh-Verpal Ckt because Earthwire got broken from Tno 42 to 44. It assembled by Aol Verka Team	
60	132KV Naraingarh-Verpal Ckt 1	24.08.22	18.30	24.08.22	19.55	3.25	EF 86	O/C Rod Phase Master 86	Due to Earth Wire broken of Tower No- 42 to 44 from Naraingarh End	Breaker Tripped from both end due to Jerk from 132KV Naraingarh-Verpal Ckt because Earthwire got broken from Tno 42 to 44. It assembled by Aol Verka Team	
61	132KV Naraingarh-Verpal Ckt-2	24.08.22	18.30	24.08.22	19.55	3.25	EF 86	Breaker Not Tripped		Breaker Tripped from 220KV civil Line end only due to Jerk from 132KV Naraingarh-Verpal Ckt because Earthwire got broken from Tno 42 to 44. It assembled by Aol Verka Team	



Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
62	132KV Chellase-Power Colony	24.08.22	16.31	24.08.22	16.41	0.10	Dr. O/C E/F 86	O/C B Phase EF	Due to Jerk of 132KV Naraingarh-Varpal ckt	Breaker Tripped from both ends due to Jerk from 132KV Naraingarh-Varpal Ckt because Earthwire got broken from Tno 42 to 44. It assembled by Adf Verka Team	
63	132KV Verpal-TamTaran	26.08.22	6.20	26.08.22	11.02	4.42	Y Phase O/C Highset General Trip Master Trip	Y Phase O/C DMT 86	As per instruction of PC Pabala Line Patrolling by related ADF/TL but Nothing found it is clear that there is some transient fault in line	Line Patrolling done by TL Verka team nothing found in line and certificate given at 132KV TamTaran end. As per instruction of PC Pabala ckt energized it is clear that there is some transits fault in line.	
64	132KV TamTaran-Bubali	26.08.22	6.20	26.08.22	6.30	0.10	Master trip 86 Relay	Breaker Not Tripped	Yard Checked from both ends found nothing abnormal	As per instruction of PC Pabala ckt energized it is clear that there is some transits fault in line	
65	132KV Verpal-Mait Mand	26.08.22	16.45	26.08.22	19.30	0.45	Blue Phase E/F 86 Relay	Breaker Not Tripped	Yard Checked from both ends found nothing abnormal	As per instruction of PC Pabala ckt energized it is clear that there is some transits fault in line.	
66	132KV Verka-Power Colony	26.08.22	16.45	26.08.22	19.04	0.18	Dr. O/C E/F 86	Breaker Not Tripped	Yard Checked from both ends found nothing abnormal	As per instruction of PC Pabala ckt energized it is clear that there is some transits fault in line.	
67	132KV Kuthuranga-Batala	26.08.22	16.45	26.08.22	22.56	4.13	DPR Zone-1 Trip Y Phase 86 Trip	L2 Pickup E/F 86 Pickup Y Phase DPR Operated	As per instruction of PC Pabala Line Patrolling by related ADF/TL but Nothing found it is clear that there is some transits fault in line.	With the instructions of PC Pabala, line is patrolling by AEE/TL Batala but nothing found hence it is a transient fault, after getting clearance-certificate from TL and with instructions of PC Pabala line is energized	

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
68	132KV Batala-Wadale Granthian Ckt-1	26.08.22	18.43	26.08.22	19.02	0.19	Dr. O/C E/F 86	Breaker Not Tripped	Due to some transient fault	With the instructions of PC Patilala , line is patrolling by AEE/TL Batala but nothing found , line is trip due to jerk after getting clearance certificate from TL and with instructions of PC Patilala line is energized	
69	132KV Batala-Wadale Granthian Ckt-2	26.08.22	18.43	26.08.22	19.02	0.19	Dr. O/C E/F 86	Breaker Not Tripped	Due to some transient fault	With the instructions of PC Patilala , line is patrolling by AEE/TL Batala but nothing found , line is trip due to jerk after getting clearance certificate from TL and with instructions of PC Patilala line is energized	
70	132KV Varpal-Hakima Gate Ckt-1	29.08.22	4.32	29.08.22	10.15	5.43	O/C Highset Y Phase , fault current=9057A	Breaker Not Tripped	Due to some transient fault	line Patrolling done by TL Verka team nothing found in line and certificate given at 220KV Varpal end. As per instruction of PC Patilala ckt energized , it is clear that there is some transits fault in line.	
71	132KV Hakima Gate-Varpal Ckt-2	29.08.22	4.32	29.08.22	6.19	1.47	DPR Y Phase	Breaker Not Tripped	Due to some transient fault	As per vstruction of PC Patilala ckt energized , it is clear that there is some transits fault in line.	
72	132KV Varpal-Hakima Gate Ckt-2	30.08.22	17.05	30.08.22	21.47	4.42	Blue Phase E/F 86 Relay	DPR DNph/86	Due to some transient fault	Line Patrolling done by TL Verka team nothing found in line and certificate given at 220KV Varpal end. As per instruction of PC Patilala ckt energized , it is clear that there is some transits fault in line.	
73	132KV Batala-Kalthanergal	31.08.22	8.54	31.08.22	10.42	1.48	DPR L1 Pick Up DPR O/C Red Phase E/F Pickup Zone Master Trip 86	Red Phase Zone-1 86	The bird was preparing for Nest at Tower no. 759	With the instructions of PC Patilala , line is patrolling by AEE/TL Batala found that the bird was preparing nest at tower no. 759 , after getting clearance certificate from TL and with instructions of PC Patilala line is energized	
74	132KV Batala-Pacharpura	31.08.22	8.54	31.08.22	9.14	0.20	Dr. O/C E/F Master Trip 86	Not tripped	Due to some transient fault	With the instructions of PC Patilala , line is patrolling by AEE/TL Batala but nothing found , line is trip due to jerk after getting clearance certificate from TL and with instructions of PC Patilala line is energized	




Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
<b>P&amp;M Circle Bathinda</b>											
1	400 KV Muktsar-Mukhu CRT-2	01-07-2022	4:30	01-07-2022	16:48	12:12	Main-1,Ja-74.18KA,Dist-0.5KM, Main-2,1-9.4KA,IL2-0.4KA,IL3- 0.4KA,IN-10.2KA,Dist-9.3KM	IL1-3.62KA,DISTT-78.3 KM, L1-N	Breakdown of Earth Wire because contractual OPGW work was going on at site between Tower no. 32-33.	Breakdown of Earth Wire because contractual OPGW work was going on at site between Tower no. 32-33.	
2	400 KV Muktsar-Mukhu CRT-2	20-07-2022	18:33	20-07-2022	20:13	01:40	Main-1,Ja-0.03KA,IL-9.53KA,IL- 9.49KA,Dist-20.3KM, Main-2,IL1-0.0KA,IL2-9.5KA,IL3- 9.5KA,IN-0.0KA,Dist-20.3KM	DIST-59.7KM, FAULT CURRENT-Yph- 5.67KA, & Bph-5.68KA	OPGW Team's T&P Came into induction zone	OPGW Team's T&P Came into induction zone	
3	220 KV Muktsar-Bathinda Line -1	15-07-2022	10:45	15-07-2022	12:09	1:24	GIC YB Phase	Breaker not Tripped	Due to Heavy Rain		Due to Heavy Rain
4	220 KV Muktsar-Bathinda Line -1	07-07-2022	21:35	07-07-2022	21:58	0:23	GIC R-ph	Not Tripped	Tripped with fault of 55 KV C- Compound feeder. (flash at 55 KV C-Compound Grid)	Intertripping.	
5	220 KV GNDTP-GH1P, Lebra Mehatbar Cd.1	10-07-2022	14:07	10-07-2022	16:16	2:11	Bus-Bar differential Relay operated	Not Tripped	B-ph Disc Insulator string damaged at 220 KV Bus-Bar-1	Material failure	
6	220 KV GNDTP-Badal	10-07-2022	14:07	10-07-2022	16:58	02:51	Bus-Bar differential Relay operated	Not Tripped	B-ph Disc Insulator string damaged at 220 KV Bus-Bar-1	Material failure	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration Hr:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
7	220 KV GNDTP- Multsar-1	10-07-2022	14:07	10-07-2022	16:32	2:25	Bus-Bar differential Relay operated	Not Tripped	B-ph Disc Insulator string damaged at 220 KV Bus-Bar-1	Material failure	
8	220 KV GNDTP- Multsar-2	10-07-2022	14:07	10-07-2022	16:31	2:24	Bus-Bar differential Relay operated	Not Tripped	B-ph Disc Insulator string damaged at 220 KV Bus-Bar-1	Material failure	
9	220 KV Bapahana-GHTP- Lehna Mohabbat CH2	17-07-2022	13:30	19-07-2022	07:53	43:23	NA	Not Tripped	Due to DC linkage, Faulty DCDB MCBs and 2 core cable from DCDB to panel and 10 core cables from breaker to R&S-ph limbs have been replaced with healthy ones.	Wiring fault	
10	220 KV GNDTP- Badal	30-07-2022	20:17	30-07-2022	20:48	0:31	TRZ-1,7M-1,2,3 PSR, PSN,CSZ, DIST. =7.06 KM.	Not Tripped	Bad weather Conditions	Transient Fault due to Bad weather Conditions	
11	220 KV GNDTP- Multsar-2	30-07-2022	20:17	30-07-2022	20:43	0:25	PHASE- R, TRIP ABC	Not Tripped	Bad weather Conditions	Transient Fault due to Bad weather Conditions	
12	220 KV GNDTP- Multsar-2	31-07-2022	01:56	31-07-2022	02:25	0:29	PHASE- R, TRIP ABC	Not Tripped	Intertripping with Badal line	Intertripping	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
13	220 KV GNDTP-Badal	31-07-2022	01:56	31-07-2022	10:27	8:31	TR2-1,2M-1,2,3 PSS, PSN,CSZ, DIST.=113 KM	BRAUFD RECLOSE, DIST.=40.51 KM, MAIN-2 Z-1, DIST.=41.7 KM	Line patrolled, nothing found.	Transient Fault	Line patrolled
14	220KV Muktsar-Abohar circuit no.1	03-08-2022	00:32	03-08-2022	00:58	00:26	DPR Main-2, OVC Bph	OVC Bph	OVC Bph	Transient Fault	
15	220 KV Muktsar-Katorewala-ckt-1 A-5	10-08-2022	5:31	10-08-2022	17:38	12:07	DPR Main-1= blue phase E/F z-1 R=531.2A, Y=495.3A,JB=1.108KA DPR Main-2= blue phase E/F z-1 L=1.7 KM	DPR Main-1, blue phase E/F z-1 JB=6.24KA DPR Main-1= blue phase E/F, L=20.8 KM R=0.2KA,Y=1.31KA,JB=6.1KA,N=4.7 KA	disc flashed at lower no62 line charged after consulting PC patiala	STRING OF DCS REPLACED BLUE AND YELLOW PHASE BY TL MUKTSAR	
16	220 KV Muktsar-Katorewala A-2	20-08-2022	2:47	20-08-2022	4:32	01:25	DPR-1 R N PHASE Z-3 L=195.5 KM DPR-2 R N PHASE Z-3 L=106.6 KM	LINE NOT TRIPPED FROM MUKTSAR END	LINE CHARGED AFTER CONSULTING PC PATIALA	INFORMED TO PC PATIALA	
17	220 KV balhinda- Badal	02-08-2022	01:49	02-08-2022	02:16	00:35	MAIN-1 DPR-R Ph Z-1 DIS.=7.9KM (ZM1 ZM2 ZM3 PSR, PSN, CS2) MAIN-2 DPR-RN Ph Z-1 DIS.= 9.0KM (ZM1 ZM2 ZM3 PSS, PSN, CS2)	MAIN-1 AN-Ph DIST.=44.49KM R=2.178KA, Y=291.5A, B=82.27A MAIN-2 AG phase DIS.=131.1KM	Line patrolled, nothing found	Transient Fault	Line patrolled
18	220 KV Manca- HMEL Refinery Ckt 1	03-08-2022	00:08	03-08-2022	01:12	01:04	DPR RN-ph Z-1 L=28.6 Km	DPR RN-ph Z-1 L=20.4 Km	Transient Fault	Transient Fault	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
19	220 KV Mansa- Jhurir	25-08-2022	20:33	26-08-2022	13:50	16:37	DPR main-1 tripped Phase RYB L-2.6 km, Z1 DPR main-2 tripped Phase RYB. L-4.803 Z-1	DPR main-1 tripped Phase C L-30.44 km, Z1 DPR main-2 tripped Phase C. L-30.44 Z-1	Disc Insulators of B-Phase flashed at Tower no 115	Material failure	Flashed B-ph Disc Insulators replaced at Tower No.115
20	220 KV Bahinda- Muktsar-1	20-08-2022	02:48	20-08-2022	04:38	01:50	E/F Started Trip N	Not Tripped	Intertripping due to fault of O/g line at Muktsar end	Intertripping.	
21	220 KV Bahinda- Muktsar-2	20-08-2022	02:48	20-08-2022	04:39	01:51	MAIN-1 R-Ph, Z-2	Not Tripped	Intertripping due to fault of O/g line at Muktsar end	Intertripping.	
22	220 KV Bajahana- GHTP- Lehna Mohabbat Ckt.2	17-08-2022	22:01	18-08-2022	14:13	16:14	DPR opened CN Ph. Z-1, Dis-4 188KM	DPR operated Z-1, Dis-22 587KM	67 No tower B Ph Discs damaged	Material failure	Flashed B-ph Disc Insulators replaced at Tower No.07
23	220 KV Ghubaya-Muktar Line	20-08-2022	02:48	20-08-2022	03:56	01:08	Starting Phase RN	Breaker Not tripped	SC fault found at tower No. 44	SC fault found at tower No. 44	SC fault found at tower No. 44
24	220 KV Ghubaya-Muktar Line	25-08-2022	05:10	25-08-2022	15:21	10:11	I main Distance-31.81 km, Z-1 Phase -RN Main 2 indications Zone-1 Distance-31.7 Km Phase -RN Auto reclose operated T	R ph O/C & E/F Z-1, Dist-9.1 Km.	Flashed disc on red phase replaced by TL at tower no 25	Replacement of 02 No flashed discs at tower no 26 of R Phase wide ptw no 89 by AEE/TL MKS Team	Flashed discs on red phase replaced by TL at tower no 25

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
25	220 KV/Calway-Maseekhara CKT	25-09-2022	02:27	25-09-2022	12:50	10:23	Dir/alc BC phase Ib = 2.681kA, Ic = 4.153 Ka DPR CN, Z1, 14.39KM Ic = 4.370KA(main 1) DPR 14.39KM (main 2)	NA	PT blast at Calway/Maseekhara grid	Material failure	
26	220 KV Ghubaya-Muktar Line	05-09-2022	03:50	05-09-2022	12:47	08:57	Main-1 Y&B Phase, Z-1&2, D=33.70 Km Main-2 Y&B Phase, Z-2, D=34.5 KM Auto reclose operate (R Phase)	R Phase, z-1 d=6.9 km	R phase 01 no top disc flashed at tower no 13	R phase 01 no top disc flashed at tower no 13	
27	132 KV MUKATSAR-SADIQ Fandol	15-07-2022	08:36	15-07-2022	13:58	5:22	DirC+E/F, Y Phase, Z-1, D=5.7 km	Breaker not installed	Due to heavy rain bird nest removed by TL from tower no 46&47	Transient fault	bird nest removed from tower no 46&47
28	132 KV MUKATSAR-SADIQ Fandol	20-07-2022	08:11	20-07-2022	14:20	06:09	DPR Relay operate, Zone-1, R Phase, 15.92km	Breaker not installed	string of disc insulators flashed at Tower no 110 of R Phase	replace string of disc insulators flashed at Tower no 110 of R Phase	replace string of disc insulators flashed at Tower no 110 of R Phase
29	132 KV Muktar-Malout Line	10-07-2022	14:07	10-07-2022	14:29	0:22	Bph, alc		Line over load due to tripping of 132kv Bathinda-Babuana line TAKEN TRY AFTER PERMISSION OF PC Patella & SSE SAHB	Due to fault on 220kv bus bar at 220kv s/s GNDTP Bathinda	
30	132 KV Muktar-Malout Line	15-07-2022	5:50	15-07-2022	14:10	8:20	Bph, alc	Bph, of 18.30 km Z-1	TAKEN TRY AFTER CLEARANCE CERTIFICATE BY AOTL H-pole No. 103 B-ph discs string changed	H-pole No. 103 B-ph discs string changed	H-pole No. 103 B-ph discs string changed

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
31	132 KV Mukatsar-Malout Line	29-07-2022	23:35	30-07-2022	0:02	0:27	Rph, o/c	Rph, o/c, w/f Z-1, 18.75 km	Transient Fault	Transient fault	
32	132 KV Mukatsar-Malout Line	30-07-2022	7:02	30-07-2022	13:36	6:28	Rph, w/c	Rph, w/f 24.83 km	Z-2 TAKEN TRY AFTER CLEARANCE CERTIFICATE BY AOTL H-pole No. 81 R- ph discs string changed	H-pole No. 81 R-ph discs string changed	H-pole No. 81 R-ph discs string changed
33	132 KV Mukatsar-Malout Line	31-07-2022	14:33	44774:00	9:40	9:27	Rph, w/c	Rph, 1. 16.73 km	Z- TAKEN TRY AFTER CLEARANCE CERTIFICATE BY AOTL H-pole No. 109 R- ph discs string changed	H-pole No. 109 R-ph discs string changed	H-pole No. 109 R-ph discs string changed
34	132 KV Mukatsar- Sarainaga Line	15-07-2022	21:05	15-07-2022	21:20	0:15	E/F	Rph, Z-1, 2.14 km	Transient fault	Transient fault	
35	132 KV Mukatsar- Sarainaga Line	16-07-2022	17:50	16-07-2022	18:20	0:30	Rph, E/F	Rph E/F	Due to Heavy Rain	Due to bad weather	Tower No. 444 Rph discs string changed vide PTW No. 09 on dt 17/07/2022
36	132 KV Mukatsar- Sarainaga Line	29-07-2022	22:56	29-07-2022	23:07	0:17	E/F	RyBPh, Z-1, 1.6 km	Transient Fault	Transient fault	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
37	132 KV Mukatsar- Saranaga Line	30-07-2022	2:26	30-07-2022	3:02	0:36	EF	RYBPH, Z-1, 1.8 km	Transient Fault	Transient fault	
38	132 KV Mukatsar- Saranaga Line	30-07-2022	18:10	30-07-2022	18:50	2:40	EF	EF	Transient Fault	Transient fault	
39	132 KV Mukatsar- Kotkapura 1 Line	30-07-2022	11:50	30-07-2022	12:03	0:13	Rph, o/c	Breaker not tripped	Due to tripping jerk of 220kv s/s Singha Wala-Bajakhana Line	Due to tripping occur at 220kv s/s Singha Wala-Bajakhana Line	
40	132KV Saranaga-KKP2-Pangarain Line(B1)	01-07-2022	02:41	01-07-2022	03:25	00:44	DPR operate Zone-1,yellow Phase19.01km	was open at pangarain s	transient fault	Transient fault	
41	132KV Saranaga-KKP2-Pangarain Line(B1)	29-07-2022	19:50	29-07-2022	20:02	0:12	OC-E/F R-Phase 2-1,D=6.414 km	Line is isolator controlled	Transient Fault	Transient fault	
42	132KV Saranaga-KKP2-Pangarain Line(B1)	30-07-2022	00:25	30-07-2022	00:43	0:18	OC-E/F R-Phase 2-1,D=6.435 km	Line is isolator controlled	Transient Fault	Transient fault	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
43	132 KV Maur-KCC Bahinda	10-07-2022	14:08	10-07-2022	14:23	0:15	Dr ORC E/F	Not Tripped , 132 KV Supply source failed from GNDTP end.	Tripped on overload due to 220 KV Bus-Bar Fault at 220 KV S/S GNDTP Bahinda	Intertripping	
44	132 KV GNDTP-Balkana	18-07-2022	19:36	18-07-2022	20:18	0:42	DPR R-ph Z-1, L= 2.9 KM	O/C R.Ph L= 9.970 KM	Bridge near Tower no. 134	Bridge near Tower no. 134	Line patrolled
45	132 KV Moga-Kokapura-01	29-07-2022	19:18	30-07-2022	0:08	4:50	DPR RN-Φ Z-01 30.654 KM	DPR RN-Φ Z-01 10.45 KM	Not found, line charged after clearance from AEE/TL, Sri Muktar Sahib.		Line patrolled b/w T/ No. 140 to 120
46	132 KV Moga-Kokapura-01	30-07-2022	11:48	30-07-2022	12:21	0:33	Dr E/F	ON	During Heavy Fault on 220 KV Moga-Bapakhandi Line	Intertripping	
47	132 KV Moga-Pangrain Kalan	01-07-2022	08:10	01-07-2022	08:35	0:25	DPR YN-Φ Z-1 3.9 KM	No CB Installed	Transient Fault, Line energised with approval of SSE.		Line patrolled on dated 04/07/2022 but no fault found.
48	132 KV Moga-Pangrain Kalan	03-07-2022	02:55	03-07-2022	03:13	0:18	DPR YN-Φ Z-1 22.786 KM	No CB Installed	Transient Fault, Line energised with approval of SSE.		Line patrolled on dated 04/07/2022 but no fault found.




Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
49	132 KV Moga-Pangrain Kalan	05-07-2022	09:47	05-07-2022	09:58	0:11	DPR YN-0 Z-1 27.025 KM	No CB installed	Transient Fault. After inspection of switchyard, line energised with approval of SSE.		Line patrolled on dated 06/07/2022 and T no. 316,319,337 disc replaced.
50	132 KV Moga-Pangrain Kalan	07-07-2022	13:03	07-07-2022	13:16	0:13	DPR YN-0 Z-1 27.267 KM & EP	No CB installed	Transient Fault. After inspection of switchyard, line energised with approval of PC, Patola		Line patrolled on dated 06/07/2022 and T no. 316,319,337 disc replaced.
51	132 KV Moga-Pangrain Kalan	07-07-2022	20:45	07-07-2022	21:01	0:16	DPR YN-0 Z-1 22.510 KM	No CB installed	Transient Fault. After inspection of switchyard, line energised with approval of PC, Patola.		Line patrolled on dated 06/07/2022 and T no. 316,319,337 disc replaced.
52	132 KV Moga-Pangrain Kalan	08-07-2022	04:06	08-07-2022	04:45	12:37	DPR YN-0 Z-1 22.046 KM	No CB installed.	Insulator strings flash at Y-0 of T/No. 316, 319 & 337. Line charged after clearance from AEE/TL, Sri Muktar Sahib.		Line patrolled & insulator string of Y-0 replaced at T/No. 316, 319 & 337 by AEE/TL, Sri Muktar Sahib. # PTW No. 19, Dt:08-07-22
53	132 KV Moga-Pangrain Kalan	12-07-2022	05:05	12-07-2022	15:25	10:20	DPR YN-0 Z-1 7.220 KM	No CB installed.	Insulator strings flash at Y-0 of T/No. 273. Line charged after clearance from AEE/TL, Sri Muktar Sahib.		Line patrolled & insulator string of Y-0 replaced at T/No. 273 by AEE/TL, Sri Muktar Sahib. # PTW No. 20, Dt:12-07-22
54	132 KV Moga-Pangrain Kalan	13-07-2022	23:02	13-07-2022	23:16	0:14	DPR YN-0 Z-1 29.6 KM	No CB installed.	Transient Fault. After inspection of switchyard, line energised with approval of PC, Patola.	Transient Fault.	



Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 9/2022 under PKM Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
55	132 KV Moga-Pangrain Kalan	13-07-2022	23:23	14-07-2022	16:00	16:37	DPR YN-Φ Z-1 29.1 KM	No CB installed	Insulator strings flash at Y-Φ of T/No. 336 & 342. Line charged after clearance from AEE/TL, Sri Muktar Sahib.	Insulator strings flash at Y-Φ of T/No. 336 & 342. Line charged after clearance from AEE/TL, Sri Muktar Sahib.	Line patrolled & insulator string of Y-Φ replaced at T/No. 336 & 342 by AEE/TL, Sri Muktar Sahib. # PTW No. 24, Dt.14-07-22
56	132 KV Moga-Pangrain Kalan	22-07-2022	09:29	22-07-2022	09:45	0:17	DPR RN-Φ Z-1 11.3 KM	No CB installed	Transient Fault. After inspection of switchyard, line energized with approval of PC, Patela.	Transient Fault.	Flashed insulator string of R-Φ replaced at T/No. 279 by AEE/TL, Sri Muktar Sahib. # PTW No. 27, Dt.23-07-22
57	132 KV Moga-Pangrain Kalan	30-07-2022	11:40	30-07-2022	12:10	0:22	CB Manually Trip	No CB installed	During Heavy Fault on 220 KV Moga-Bajakhana Line	During Heavy Fault on 220 KV Moga-Bajakhana Line	N/A
58	132 KV Moga-Pangrain Kalan	31-07-2022	08:04	31-07-2022	15:48	9:42	DPR RN-Φ Z-1 3 KM	No CB installed	Insulator strings flash at R-Φ of T/No. 252. Line charged after clearance from AEE/TL, Sri Muktar Sahib.	Free Cutting, removal of bird nest & cleaning of disc required on regularly scheduled basis.	Line patrolled & insulator string of R-Φ replaced at T/No. 252 by AEE/TL, Sri Muktar Sahib. # PTW No. 31, Dt.31-07-22
59	132 KV Moga-Pangrain Kalan	01-08-2022	00:17	01-07-2022	00:31	0:14	DPR RN-Φ Z-1 20.181 KM	No CB installed	Transient Fault. After inspection of switchyard, line energized with approval of PC, Patela.	Transient Fault.	Line patrolled on 5/08/2022 and No fault found.
60	132 KV Gidderbaha-Bafumai	26-07-2022	20:56	28-07-2022	21:30	0:34	DPR Relay operated, CN Phase, Z-1, Distance - 8.2 KM	DPR Relay operated, CN Phase, Z-1, Distance - 14.9 KM	Transient fault	Transient fault	No

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
61	132 KV Bakuana - PDPL Ckt 1	17-07-2022	23:17:00	17-07-2022	23:47:00	0:30	DPR Relay operated, AN Phase, Z-1, Distance : 841.9 meter	Under voltage	Due to Birding	Due to Birding	No
62	132 KV Bakuana - PDPL Ckt 1	18-07-2022	00:27:00	18-07-2022	02:22:00	1:55	DPR Relay operated, AN Phase Z-1, Distance : 830.9 meter	Under voltage	Due to Birding and No Visible fault found	Due to Birding	No
63	132 KV Bakuana - PDPL Ckt 1	29-07-2022	01:50:00	29-07-2022	02:06:00	0:16	DPR Relay operated, AN Phase, Z-1, Distance : 845 meter	Under voltage	Due to Birding	Due to Birding	No
64	132 KV Bakuana - PDPL Ckt 2	26-07-2022	22:35:00	26-07-2022	22:47:00	0:12	DPR Relay operated, AN Phase, Z-1, Distance : 866 meter	Under voltage	Due to Birding	Due to Birding	No
65	132 kv Gaborobaha Bakuana	31-07-2022	21:40	31-07-2022	22:02	0:22	DPR CN Z1 40% 6.9KM	DPR CN Z1 9.3KM IA-0.20KA IB-0.51KA IC-4.62KA	Transient fault	132kv isolated multistor line was already in fault	Nil
66	132 KV Gaborobaha-Bardai	16-07-2022	21:02	16-07-2022	21:30	0:28	DPR AN Z1 13.9KM 90%	Nil	Transient fault	Transient fault	Nil

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization											
Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
67	132 KV Gaddetaha-Batal	16-07-2022	23:56	19-07-2022	10:20	16:24	DPR AN Z1 14KM 91%	Nil	Replaced of Discs of Red phase On tower no 43 & 44	Replaced of Discs of Red phase On tower no 43 & 44	Replaced of Discs of Red phase On tower no 43 & 44
68	132 KV Malout-Abohar	20-07-2022	7:54	20-07-2022	14:17	6:23	R PH O/C EF	NA	NO VISIBLE FAULT FOUND.	Nil	PATROLLING OF LINE DONE FROM POLE NO 61 TO 252 NO
69	132 KV Malout-Abohar	29-07-2022	12:43	29-07-2022	13:31	0:48	B PH O/C EF	NA	TRIP TAKEN AFTER TAKING PERMISSION FROM AEE TL MKS AND PC PATIALA	Nil	Patrolling done by TL, but no fault found
70	132 KV Malout-Abohar	30-07-2022	19:15	31-07-2022	06:35	14:20	R PH O/C EF	NA	NO VISIBLE FAULT FOUND.	Nil	PATROLLING-DONE TL MKT TEAM
71	132 KV Malout-Abohar	31-07-2022	18:13	03-08-2022	14:45	20:32	B PH O/C EF	NA			Line is patrolled by TL team on dated 03/08/2022, but no fault found. Line was patrolled later as this line is idle and team was busy on other faulty lines.
72	132 KV Bathinda-Balamba	12-08-2022	09:45	12-08-2022	12:07	06:22	DPR 2.2 DIS -0.96m	RN 2.1 DIS -4.749m R=1.819A, Y=71.68A, B=236.2A	Nothing Found	Transient Fault	Line Patrolled

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
73	132 KV Bahonda- Baluwara	20-08-2022	02:48	20-08-2022	04:41	01:53	GIC	Not Tripped	Due to cascading trippings at 220 KV sis GNDTP end.	Intertripping.	NA
74	132 KV GIC Bahonda-Maur Line	17-08-2022	03:58	17-08-2022	15:43	11:45	E/F B Ph Dist. =15.20 Km	E/F B Ph Dist. =18.30 Km	Disc insulator string flashed at tower no. 81	Material Failure	Flashed B-ph Disc Insulators replaced at Tower No.81
75	132 KV GIC Bahonda-Maur Line	20-08-2022	02:48	20-08-2022	03:08	00:20	GIC R,B Ph	Not Tripped . 132 KV Supply source failed from GNDTP end	Due to cascading trippings at 220 KV sis GNDTP end.	Intertripping.	NA
76	132 KV Malout Muktsar	01-08-2022	18:19	01-08-2022	21:30	03:11	B PH GIC, E/F, ZONE-1, DIST-460.6 MTR	B PH GIC, B-2670	BREAKDOWN OF EARTH WIRE BETWEEN H POLE NO. 298-299 AND H POLE NO-299-300	BREAKDOWN OF EARTH WIRE BETWEEN H POLE NO. 298-299 AND H POLE NO-299-300	PATROLLING OF LINE DONE FROM H POLE NO 298-300.BROKEN EARTH WIRE REPAIRED
77	132 KV Malout Muktsar	10-08-2022	15:25	10-08-2022	15:57	00:32	Y PH GIC E/F, ZONE-2 (DIST-39.72 KM)	Breaker not operated	132KV MUKTSAR -SARBANAGA LINE BREAKDOWN.	132KV MUKTSAR -SARBANAGA LINE BREAKDOWN	Try taken after permission from Pc Patola
78	132 KV Malout Muktsar	15-08-2022	10:13	15-08-2022	21:15	05:02	B PH GIC, E/F, ZONE-1 DIST- 4.039 KM	B PH GIC, B-2955A	STRING OF DISC INSULATOR OF BPH DAMAGED AT H POLE NO 267	STRING OF DISC INSULATOR OF BPH DAMAGED AT H POLE NO 267	DAMAGED STRING OF INSULATOR DISCS OF B PHASE REPLACED AT H POLE NO 267

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization											
Sr. No	Name of the Line	From		To		Duration HH-MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
79	132 KV Malout-Muktsar	21-08-2022	07:33	21-08-2022	03:15	05:47	R PH O/C E/F, ZONE-1, DIST-17.80 KM	R PH O/C-4542A	PATROLLING DONE BETWEEN H POLE NO 100 TO 176, NO FAULT FOUND	Nothing found	PATROLLING DONE BY TL MUKTSAR TEAM
80	132 KV Malout-Muktsar	23-08-2022	18:58	23-08-2022	22:45	03:47	Y PH O/C E/F, ZONE-1, DIST-14.54 KM	Breaker not operated	PATROLLING DONE BETWEEN H POLE NO 158 TO 190, NO FAULT FOUND	Nothing found	PATROLLING DONE BY TL MUKTSAR TEAM
81	132 KV Malout-Muktsar	30-08-2022	03:31	30-08-2022	12:42	09:11	B PH O/C E/F, ZONE-1, DIST-16.37 KM	B PH O/C, ZONE-1, DIST-13.275 KM	H POLE NO 166 IS PH STRING FLASHED	STRING FLASHED	H POLE NO. 166 B. PH FLASHED STRING REPLACED
82	132 KV Malout-Muktsar	31-08-2022	16:35	31-08-2022	20:38	04:03	Y PH O/C E/F, ZONE-1, DIST-01.015 KM	Y PH O/C E/F, ZONE-2, DIST-28.921 KM	BREAKDOWN OF EARTH WIRE BETWEEN H POLE NO. 302-303	BREAKDOWN OF EARTH WIRE BETWEEN H POLE NO. 302-303	BROKEN EARTH WIRE REPAIRED BETWEEN H POLE NO. 302 AND 303
83	132 KV Malout-Abohar	05-08-2022	17:18	30-08-2022	14:30	21:12	R PH O/C E/F	Nil	NO VISIBLE FAULT FOUND		PATROLLING DONE BY TL MKT TEAM BETWEEN H POLE NO 1 TO 85, NO VISIBLE FAULT FOUND.
84	132 KV Bahawal - POPL Cat-2	05-08-2022	03:04	05-08-2022	03:14	00:10	DPR Relay operated, All Phase, Z-1, Distance - 625.4 meter	Under voltage	Due to Beding	Beding	No

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
85	132 KV Korkapura-1 Moga	01-08-2022	18:20	01-08-2022	12:33	18:33	O/C, R-Phase zone 1, D=1.045 km	Dr. L/F	At Tower no 167 R phase discs flushed	At tower no 167 R phase discs flushed	Flushed discs replaced at tower no 167
86	132 KV Moga- Korkapura-01	05-08-2022	10:46	05-08-2022	12:20	01:34	ON	DPR YB-0 Z 2 41.10 KM	Due to Damage of coil of Unit 02 of 132 KV C/Bank-01 at 220 KV S/S Moga (Singhawala)	Due to Damage of coil of Unit 02 of 132 KV C/Bank-01 at 220 KV S/S Moga (Singhawala)	
87	132 KV Moga- Korkapura-01	05-08-2022	18:54	05-08-2022	23:05	04:11	DPR YN-0 Z-1 27.6 KM	DPR YN-0 Z-1 14:53 KM	Not found, line changed after clearance from AEE/TL, Sr Muktar Sahib		Line patrolled from T.No. 118 to 124
88	132 KV Moga- Pangraon Kulan	01-08-2022	00:17	01-08-2022	00:31	00:14	DPR RN-0 Z-1 20.181 KM	No CB installed.	Transient Fault, Line energised with approval of Sr. Xnn, P&M Division, Moga.		Line patrolled on 5/08/2022 and No fault found.
89	132 KV Moga- Pangraon Kulan	04-08-2022	21:45	04-08-2022	21:59	00:14	DPR RN-0 Z-1 3.0 KM	No CB installed.	Transient Fault. After inspection of switchyard, line energised with approval of PC, Patiala.		Line patrolled dated 27/08/2022 and T No. 307 y-ph disc replaced
90	132 KV Moga- Pangraon Kulan	22-08-2022	01:25	22-08-2022	01:42	00:17	DPR YN-0 Z-1 12.8 KM	No CB installed.	Transient Fault. After inspection of switchyard, line energised with approval of PC, Patiala		Line patrolled dated 27/08/2022 and T No. 307 y-ph disc replaced

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization											
Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
91	132 KV Moga- Pangrain Kalan	25-08-2022	01:36	25-08-2022	01:53	00:17	DPR YN-Φ Z-1 16.022 KM	No CB Installed	Transient Fault. After inspection of switchyard, line energised with approval of PC, Patola	Transient Fault	
92	132 KV Moga- Pangrain Kalan	27-08-2022	04:02	27-08-2022	14:50	10:48	DPR YN-Φ Z-1 16.876 KM	No CB Installed	Insulator strings flash at Y-Φ of T/No. 307. Line charged after clearance from AEE/TL, Smt Muktar Sahib.	Insulator strings flash at Y-Φ of T/No. 307.	Line patrolled & insulator string of Y-Φ replaced at T/No. 307
93	132 KV MUKATSAR MUKATSAR LINK 2	20-08-2022	02:45	20-08-2022	03:52	01:40	O/C R Phases E,F	breaker not tripped	With the jerk of 220 KV Muktsar- Ghubaya Line	With the jerk of 220 KV Muktsar-Ghubaya Line	
94	132 KV Muktsar- Muktsar Link Ckt-1	01-08-2022	18:20	01-08-2022	18:42	00:22	E-F		Tripping occur with jerk of 132kv Malout line	Tripping occur with jerk of 132kv Malout line	
95	132 KV Muktsar- Muktsar Link Ckt-1	10-08-2022	15:27	10-08-2022	15:50	00:23	E-F	Vph. O/C E,F	Tripping occur Due to 132kv Saranaga line conductor breakdown from gantry to 1st tower & 1st tower to 2nd tower at 132kv sis Muktsar	Tripping occur Due to 132kv Saranaga line conductor breakdown from gantry to 1st tower & 1st tower to 2nd tower at 132kv sis Muktsar	
96	132 KV Muktsar- Muktsar Link Ckt-1	15-08-2022	16:15	15-08-2022	16:35	00:20	E-F		Tripping occur with jerk of 132kv Malout line	Tripping occur with jerk of 132kv Malout line	

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Idby indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
97	132 kVMuktar-Muktar Link Ckt-1	20.08.2022	2.40	20.08.2022	3.52	01:04	EIF	-	Tripping occur with jerk of 132kv Malout line	Tripping occur with jerk of 132kv Malout line	
98	132 kVMuktar-Muktar Link Ckt-1	21.08.2022	7.33	21.08.2022	7.43	00:10	EIF	-	Tripping occur with jerk of 132kv Malout line	Tripping occur with jerk of 132kv Malout line	
99	132 kVMuktar-Muktar Link Ckt-1	23.08.2022	18.59	23.08.2022	19.26	00:27	EIF	Yph, O/C, EIF	Tripping occur with jerk of 132kv Malout line	Tripping occur with jerk of 132kv Malout line	
100	132kv Link Muktar-Muktar Link Ckt-2	01.08.2022	18.20	01.08.2022	16.43	08:22	EIF	-	Tripping occur with jerk of 132kv Malout line	Tripping occur with jerk of 132kv Malout line	
101	132kv Link Muktar-Muktar Link Ckt-2	10.08.2022	15.27	10.08.2022	15.52	00:25	EIF	Yph, O/C, EIF	Tripping occur Due to 132kv Saranaga line conductor breakdown from gantry to 1st tower & 1st tower to 2nd tower of 132kv s/s Muktar	Tripping occur Due to 132kv Saranaga line conductor breakdown from gantry to 1st tower & 1st tower to 2nd tower of 132kv s/s Muktar	
102	132kv Link Muktar-Muktar Link Ckt-2	15.08.2022	16.15	15.08.2022	16.40	00:25	EIF	Oph, O/C, EIF	Tripping occur with jerk of 132kv Malout line	Tripping occur with jerk of 132kv Malout line	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
103	132kv Link Muktsar-Muktsar Link Ck-2	21.08.2022	7.58	21.08.2022	7.43	00.10	E/F		Tripping occur with jerk of 132kv Malout line	Tripping occur with jerk of 132kv Malout line	
104	132kv Link Muktsar-Muktsar Link Ck-2	23.08.2022	18.59	23.08.2022	19.28	00.29	E/F	Yph, O/C, E/F	Tripping occur with jerk of 132kv Malout line	Tripping occur with jerk of 132kv Malout line	
105	132 KV MUKATSAR-JALALABAD	05.08.2022	10:47	05.08.2022	10:57	00.10	100%	Breaker not installed	D/Ot	D/Ot	
106	132 KV MUKATSAR-SADIKH Andrit	30.06.2022	18.58	31.06.2022	12.56	18.01	DPR Relay operate 2x on 1, R Phase, 15.49km	Breaker not installed because line is idle	Complete string of disc insulators flashed at tower no 110 of R Phase	Complete string of disc insulators flashed at tower no 110 of R Phase	Replacement of Complete string of disc insulators flashed at tower no 110 of R Phase wide PTW No 50 by T1 Team Muktsar
107	132 kv Muktsar- Kotkapura 1 Line	10.08.2022	15.27	10.08.2022	15.56	00.29	E/F	Yph, O/C, 2-3 km	Due to 132kv Saranaga line conductor breakdown from gantry to 1st tower & 1st tower to 2nd tower at 132kv s/s Muktsar	Tripping occur Due to 132kv Saranaga line conductor breakdown from gantry to 1st tower & 1st tower to 2nd tower at 132kv s/s Muktsar	
108	132 kv Muktsar- Kotkapura 1 Line	15.08.2022	16.15	15.08.2022	16.38	00.23	Bph, o/c		Tripping occur with jerk of 132kv Malout line	Tripping occur with jerk of 132kv Malout line	

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
109	132 kv Muktesar- Kotkapura-1 Line	17.08.2022	9:02	17.08.2022	13:00	04:01	Rph. oc	Rph. oc, Z-1, 732.6 m	Coupling capacitor damaged	Coupling capacitor damaged	
110	132 kv Muktesar- Kotkapura-1 Line	20.08.2022	2:48	20.08.2022	3:16	00:28	Rph. oc	-	With the jerk of 220 kv Muktesar- Ghubaya Line	With the jerk of 220 kv Muktesar- Ghubaya Line	
111	132 kv Muktesar- Kotkapura-1 Line	21.08.2022	7:53	21.08.2022	7:58	00:25	Rph. oc	-	Tripping occur with jerk of 132kv Malout line	Tripping occur with jerk of 132kv Malout line	
112	132 kv Muktesar- Kotkapura-1 Line	23.08.2022	18:59	23.08.2022	19:20	00:21	EF	-	Tripping occur with jerk of 132kv Malout line	Tripping occur with jerk of 132kv Malout line	
113	132KV Saranaga- KCP2- Panggarah (LineB1)	05.08.2022	17:23	05.08.2022	17:33	00:10	OPR operate, Zone-1, yellow Phase21.05km	breaker was open at panggarah substation	transient fault	Transient Fault	
114	132KV Saranaga- KCP2- Panggarah (LineB1)	22.08.2022	02:36	22.08.2022	02:55	00:19	OPR operate, Zone-1, blue Phase15.05 km	breaker was open at panggarah substation	transient fault	Transient Fault	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization											
Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
115	132KV Saranaga-KKP2-Pangaran (Line/St)	30.08.2022	07:39	30.08.2022	07:58	00:19	DPR operate Zone-1,Mut Phase20.16 km	breaker was open at pangaran substation	transient fault	Transient Fault	---
116	132 kv saranaga -muktar Line	10.08.2022	15:28	10.08.2022	23:50	08:22	CVC Y-ph	Conductor breakdown between gantry and 1st tower at 132 kv muktar sub station	Conductor breakdown between gantry and 1st tower at 132 kv muktar sub station	Conductor breakdown between gantry and 1st tower at 132 kv muktar sub station	---
117	132 kv saranaga -muktar line	23.08.2022	19:01	23.08.2022	19:35	00:34	Directional EF 372 A	Breaker not tripped	Tripping occur with jerk of 132kv Muktar-Makout line	Tripping occur with jerk of 132kv Muktar-Makout line	---
118	132 KV Moga- Kolkapura-01	12-09-2022	05:38	12-09-2022	05:58	0:20	DPR YN-0-2-1 37.0 KM	DPR YN-0-2-1 5.705 KM	Transient Fault. After inspection of switchyard, line energised with approval of PC, Patola		Line patrolled on dated 12/09/2022 and no fault found
119	132 KV Moga- Kolkapura-01	25-09-2022	16:43	25-09-2022	16:45	02:02	DPR BN-0-2-1 16.534 KM	DPR BN-0-2-1 24.75 KM	Transient Fault. After inspection of switchyard, line energised with approval of PC, Patola from 132 KV S/S Kolkapura-01 End.		Line patrolled by TA team, but no fault found
120	132 KV Moga- Pangran Kalan	14-09-2022	20:16	14-09-2022	20:47	0:31	DPR YN-0-2-1 26.9 KM	No CB installed			

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
121	132 KV Moga - Pangrain Kalan	16-09-2022	03:01	16-09-2022	13:31	10:30	DPR YN-Ø 2-1 25.178 KM	No CB Installed.	Insulator strings flash at Y-Ø of T/No. 325. Line charged after clearance from AEE/TL, Shri Muktar Sahib.	Insulator strings flash at Y-Ø of T/No. 325.	Line patrolled & insulator string of Y-Ø replaced at T/No. 325.
122	132 KV Moga - Pangrain Kalan	20-09-2022	20:01	20-09-2022	20:21	0:20	DPR YN-Ø 2-1 29.2 KM	No CB Installed.	Transient Fault. After inspection of switchyard, line energised w		Line patrolled and No fault found.
123	132 KV Moga - Pangrain Kalan	22-09-2022	07:48	22-09-2022	04:02	0:22	DPR RN-Ø 2-1 25.179 KM	No CB Installed.	Transient Fault. After inspection of switchyard, line energised with approval of PC, Patola.		Line patrolled partially on 29/09/2022 and No fault found.
124	132 KV Moga - Pangrain Kalan	26-09-2022	09:55	26-09-2022	10:08	0:13	DPR YN-Ø 2-1 12.58 KM	No CB Installed.	Transient Fault. After inspection of switchyard, line energised with approval of SSE.		Line patrolled partially on 29/09/2022 and No fault found.
125	132KV JGC-MAJR	12-09-2022	05:42	12-09-2022	06:14	00:32	DPR CN-PH, 2-1, 19.7km	DPR CN-PH, 2-1, 15.17KM	Transient fault.	Temporary flashover caused tripping.	tower top patrolling done on 13.9.22, found a flashed disc at B-ph of T No 82, replaced the same with healthy one.
126	132KV JGC-MAJR	29-09-2022	05:04	29-09-2022	13:13	08:08	DPR AN-ph, 2-1, 19.6km	DPR AN-Ph, 2-1, 13.36KM	Flashed R-Ph Insulator String Changed on Tower No.102	Flashed R-Ph Insulator String Changed on Tower No.102	Flashed R-Ph Insulator String Changed on Tower No.102

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
127	132 KV Gidderbaha Bakuana	07-09-2022	23:45:00	08-09-2022	00:10:00	0:24	DPR Relay operated, BN Phase, Z-1, Distance : 11.3 KM	DPR Relay operated, BN Phase, Z-1, Distance : 11.5 KM	Transient Fault	Transient fault	
128	132 KV Gidderbaha Bakuana	08-09-2022	04:50:00	08-09-2022	10:36:00	11:36	DPR Relay operated, BN Phase, Z-1, Distance : 11.5 KM	DPR Relay operated, BN Phase, Z-1, Distance : 11.0 KM	Tower No. 75 B-phase String Flashed.	Tower No. 75 B-phase String. Flashed.	Tower No.75 B-phase String replaced.
129	132 KV Bakuana - PDPL CM-1	29-09-2022	05:50:00	02-09-2022	09:40:00	0:50	DPR Relay operated, BN Phase, Z-1, Distance : 1.003 KM	Under voltage	Line Patrolled by PDPL, and No Visible Fault found	Line Maintained by PDPL	
130	132 KV Bakuana - PDPL CM-2	26-09-2022	19:44:00	27-09-2022	00:27:00	4:43	DPR Relay operated, AN Phase, Z-1, Distance : 459.0 Meter	Under voltage	Line Patrolled by PDPL, and No Visible Fault found	Line Maintained by PDPL	
131	132 KV Gidderbaha Badal	24-09-2022	08:40	24-09-2022	13:20	4:34	DPR 22 BN 24.8KM 75%.	Nil	No visible fault found		No visible fault found during patrolling
132	132 Kv Melodi-Muzsar	25-09-2022	6:02	25-09-2022	12:45	6:43	B PH O/C I/F, ZONE-1, DIST-08.74KMS	B PH O/C I/F B 3050A/N-2090A Z-1, DIST-20.877KMS	Due to string of disc flashed at h-pole no. 223	String of disc flashed at h-pole no. 223	String of disc replaced at H pole no. 223.




Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization											
Sr. No.	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
133	132 Kv Mabou/Abhoar	01-09-2022	16:32	02-09-2022	16:36	24:04:50	B PH O/C E/F	NA	Patrolling Done Whole Line, No Visible Fault Found		Patrolling Done Whole Line, No Visible Fault Found
134	132 Kv Mabou/Abhoar	06-09-2022	05:03	09-09-2022	06:23	0:20	B PH O/C E/F	NA	Patrolling Done Whole Line, No Visible Fault Found		Patrolling Done Whole Line, No Visible Fault Found
135	132 Kv Mabou/Abhoar	09-09-2022	14:54	10-09-2022	14:12	23:18	B PH O/C E/F	NA	Patrolling Done Whole Line, No Visible Fault Found		Patrolling Done Whole Line, No Visible Fault Found
136	132 Kv Mabou/Gaddebahe	12-09-2022	00:35	12-09-2022	16:10	15:32	Y PH O/C E/F, ZONE-1 DST-4.2 KM	Y PH O/C E/F, ZONE-1 DST-12.28 KM	String Of Y Phase Of Tower No 18 Damaged.	String Of Y Phase Of Tower No 18 Damaged	PATROLLING DONE & DAMAGED- STRING OF Y PHASE OF TOWER NO 18 REPLACED
137	132 Kv Mabou/Abhoar	24-09-2022	21:38	25-09-2022	12:47	15:09	B PH O/C E/F	NA	Patrolling Done From H-Pole No. 1 To 45, No Visible Fault Found		PATROLLING From H-Pole No. 1 To 45, DONE BY TL MKT
138	132 Kv Mabou/Abhoar	26-09-2022	11:14	27-09-2022	15:15	26:01:00	Y PH O/C E/F	NA	Kite Struck Between Y & B Ph Of H. Pole No 32	Kite Struck Between Y & B Ph Of H. Pole No 32	KITE REMOVED AND PATROLLING OF WHOLE LINE DONE BY TL MKT

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
139	132 KV MUKATSAR-JALALABAD	05.09.2022	03:50	05.09.2022	10:40	6:50	Phase 0HL 2-1 11x2.5 KM	Breaker not installed	If phase string of disc insulators flashed at tower no 14	If phase string of disc insulators flashed at tower no 14	8 phase string of disc insulators flashed at tower no 14 Replaced by TL
140	132 KV MUKATSAR-SADIKOT aradkot	01.09.2022	05:55	01.09.2022	15:22	9:33	DPR Relay operate Zone-1, R Phase Distance=9.7 km	Breaker not installed	Line patrolled by TL No fault found	Transient fault	Line patrolled by TL No fault found
141	132 KV MUKATSAR-SADIKOT aradkot	12.09.2022	11:12	12.09.2022	14:57	3:45	DPR Relay operate Zone-1, R Phase Distance=7.95 kms	Breaker not installed	Line patrolled by TL No fault found	Transient fault	Line patrolled by TL No fault found
142	132KV Mukatsar MAL OUT LINE	24.09.2022	12:17	24.09.2022	12:55	0:38	E/F	Breaker not trip	TAKEN TRY AFTER PERMISSION OF PC Patela & SSE SAHBI	Tripping occur with jerk of 132kv Kothapura-1 line	
143	132kv Mukatsar Link CA-1	8.9.2022	4:08	8.9.2022	4:30	0:22	E/F	11ph. oc. at 2-1	TAKEN TRY AFTER PERMISSION OF PC Patela & SSE SAHBI	Tripping occur with jerk of 132kv Saranaga line	
144	132kv Mukatsar Link CA-1	24.09.2022	12:17	24.09.2022	12:57	0:40	E/F	Yph E/F	TAKEN TRY AFTER PERMISSION OF PC Patela & SSE SAHBI	Tripping occur with jerk of 132kv Kothapura-1 line	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
145	132 KV Mukatun-Link CA-2	8/9/2022	4:08	8/9/2022	4:30	0:22	EF	Bph. o/c. of Z 1	TAKEN TRY AFTER PERMISSION OF PC Pakala	Tripping occur with jerk of 132kv Saranaga line	
146	132 KV Mukatun-Link CA-2	24/09/2022	12:17	24/09/2022	12:57	0:40	EF	Yph. EF	TAKEN TRY AFTER PERMISSION OF PC Pakala	Tripping occur with jerk of 132kv Kottaputa-1 line	
147	132 kv Mukatun- Saranaga Line.	8/9/2022	4:08	8/9/2022	12:50	8:42	Bph. o/c	Bph. o/c. of Z-1 7.407 KM	TAKEN TRY AFTER CLEARANCE CERTIFICATE BY ACTL Tower No 467 B-ph discs string changed	Tower No. 467 B-ph discs string changed.	
148	132 kv Mukatun- Saranaga Line	24/09/2022	12:17	24/09/2022	13:20	01:03	EF	EF	TAKEN TRY AFTER PERMISSION OF PC Pakala & SSE SANBI	Tripping occur with jerk of 132kv Kottaputa-1 line	
149	132KV Saranaga-KKP2-Pangasinan Line(B1)	24/09/2022	22:53	25/09/2022	12:10	13:17	G/C+EF R-Phase,Z-1.D=9.526 km	Line is isolator controlled	Line patrolled by TL No fault Found	Transient Fault	Line patrolled by TL No fault Found
150	132KV Saranaga-KKP2-Pangasinan Line(B1)	29/09/2022	02:50	29/09/2022	03:02	0:12	R-Phase,Z-1.D=9.506 km	Line is isolator controlled	Transient Fault	Transient Fault	Line patrolled by TL No fault found

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Detail Of Tripping / Breakdowns of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization											
Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
P&M Circle Jalandhar											
1	220 KV Nakodar-Rohana Jalandhar	04-07-2022	04:36	04-07-2022	04:05	0:00	DPR R phase E/F at 34.2km	Auto reclosed		Thunderstorms, windy weather and heavy rains	
2	220 KV BAKHRA MAHLPUR CKT NO 2	14-07-2022	23:25	15/07/2022	16:35	17:08	REL 670 MAIN BLUE PHASE DPR ZONE 1ST MICOM P-442 MAIN 2 BLUE PHASE	BLUE PHASE ZONE 1ST REL 670 MICOM P-442 BLUE PHASE	FLASH OVER 31 MPROADREY FAULT & TRANSENT FAULT DUE TO BAD WEATHER	FLASH-OVER DUE TO TRANSIENT FAULT & PATROLL THE LINE ON DATED 14/07/2022 FROM T. NO. 37-130 NO ABNORMALLY FOUND	
3	220 KV BAKHRA MAHLPUR CKT NO 2	16-07-2022	21:28	17/07/2022	15:08	17:5	MAIN 2 YELLOW PHASE WITH ZONE 1ST	YELLOW PHASE ZONE 1ST MICOM P-442 MAIN-1	FLASH OVER TEMPRAOREY FAULT & TRANSENT FAULT DUE TO HEAVY RAIN & LIGHTNING IN THE REGION	FLASH OVER DUE TO TRANSIENT FAULT & PATROLL THE LINE ON DATED 17/07/2022 FROM T. NO. 1-58 NO ANY VISIBAL FAULT FOUND TRIPPING DUE TO HEAVY RAIN & LIGHTNING IN THE REGION	
4	220 KV Nakodar-Rohana Jalandhar	20-07-2022	05:28	20-07-2022	07:58	2:31	Ope R phase E/F at 49.2km	Ope R phase E/F at 2.7km	very heavy rains and thunderstorms	Bad weather	
5	220 KV MAHLPUR -JAMSHER	02-08-2022	5:21	02/08/2022	13:3	8:08	RED PHASE ZONE 1ST P-442	RED PHASE ZONE 1ST P-442	FLASH OVER TEMPRAOREY FAULT & TRANSENT FAULT	FLASH OVER DUE TO TRANSIENT FAULT & PATROLL THE LINE ON DATED 02/08/2022 FROM T. NO. 12-143 NO ABNORMALLY FOUND	

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration H:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
6	220KV BAKHRA-MAMILPUR CKT NO. 1	14-08-2022	15:38	14/08/2022	15:58	4:2	BLUE PHASE ZONE 1ST	BLUE PHASE ZONE 1ST	SUSPECTED TREE TRIMMING DONE AT NEAR T. NO. 3	PATROLL THE LINE ON DATED 14/08/2022 & 16/08/2022 FROM T. NO.01-12 & SUSPECTED TREE TRIMMING DONE NEAR T. NO. 3	
7	220 KV Nakodar Rehans Jatra	22-08-2022	14:58	22-08-2022	14:58	0:00	DPR B phase E/F at 34.2km	Auto reclosed	transient fault	transient fault	
8	220 KV Nakodar Katarpur CKT-1	23-08-2022	13:02	23-08-2022	16:04	3:02	DPR R phase E/F at 4.5km	DPR R phase E/F at 24.67km	line patrolled from tower no 5 to 28 found nothing	line patrolled from tower no 5 to 28 found nothing	
9	220 KV Nakodar Asoomahi CKT-1	29-08-2022	10:51	29-08-2022	16:49	5:58	DPR XYB phase to phase fault at 6km	DPR YB phase to phase fault at 10.36km	line patrolled from tower no 10 to 30 found nothing	line patrolled from tower no 10 to 30 found nothing	
10	220kv Jansher-Goraya	04-09-2022	8:53	04-09-22	14:45	5:52	DPR CN2-1 J1-15.7km	DPR CN2-1 J1-8 km	The disc insulator of B phase at Tw no 2565 were found flashed due to which line was tripped and same were replaced with new disc insulators.	The disc insulator of B phase at Tw no 2565 were found flashed due to which line was tripped and same were replaced with new disc insulators.	
11	220 KV Koda Junga-Katarpur CKT-2	10-09-2022	12:38	10-09-22	13:28	0:50	DPR B phase at 11.32 km	DPR B phase at 16.21 km	branch of forest department tree comes in contact due to extreme thunderstorm tree branches cut	branch of forest department tree comes in contact due to extreme thunderstorm tree branches cut	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization											
Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
12	220 KV DASUYA-PONG-3	14-09-2022	13:01	14/09/2022	20:50	7:49	Y&B PHASE ZONE 1ST	30%	FLASH OVER TEMPORARY FAULT & TRANSIENT FAULT	FLASH OVER DUE TO TRANSIENT FAULT & PATROLL THE LINE ON DATED 14/09/2022 FROM T. NO. 1-20&15/09/2022 TREE TRIMMING FROM T. NO. 41-50 BUT NO ABNORMALLY FOUND	
13	220 KV JAMSHER-RHANA JATTAN	16-09-2022	1:40	16/09/2022	12:26	10:46	RED PHASE ZONE 1ST	RED PHASE ZONE 1ST	FLASH OVER TEMPORARY FAULT & TRANSIENT FAULT	FLASH OVER DUE TO TRANSIENT FAULT & PATROLL THE LINE ON DATED 15/09/2022 & TREE TRIMMING AT T. NO. 67-143&67/1 to 67/10 BUT NO ABNORMALLY FOUND	
14	220KV BBSB-Jamsher CKT	21-09-2022	17:45	21-09-22	20:42	2:56	DPR, YN.Z-1/FI-334km	DPR, YN.Z-1/FI-2757km	During patrolling of this line it was found that there is illegal construction of building between Gantry no 6/1 and 6/2 and one person accidently comes into the induction zone of 220kv line due to which line was tripped.	During patrolling of this line it was found that there is illegal construction of building between Gantry no 6/1 and 6/2 and one person accidently comes into the induction zone of 220kv line due to which line was tripped.	
15	220 Jamsher-sultanpur	27-09-2022	9:43	27-09-22	10:50	01:07	DPR, BN.Z-1/FI-31.17km	DPR, BN.Z-1/FI-11.22km	The disc insulators of B phase at Twno. 109 were found flashed due to which line was tripped and same were replaced with new disc insulators.	The disc insulators of B phase at Twno. 109 were found flashed due to which line was tripped and same were replaced with new disc insulators.	
16	220 Jamsher-sultanpur	27-09-2022	12:56	27-09-22	11:45	4:49	DPR, BN.Z-1/FI-31.41km	DPR, BN.Z-1/FI-4.614km.	The disc insulators of B phase at Twno. 109 were found flashed due to which line was tripped and same were replaced with new disc insulators.	The disc insulators of B phase at Twno. 109 were found flashed due to which line was tripped and same were replaced with new disc insulators.	
17	132 KV HAMRIPUR-CHOHAL LINE	06-07-2022	3:1	06-07-2022	4:1	1	BLUE PHASE EF	BLUE PHASE N ZONE 1ST	BLUE PHASE STRING INSULATOR FLASHED AT T. NO.40	PATROLL THE LINE FROM T. NO. 20-47 & FOUND BLUE PHASE INSULATOR STRING FLASHED AT T. NO.40 & REPLACED WITH 20 KN ANTI FOG NSULATOR STRING ON DATED 06/07/2022	

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
18	132 KV HAMIRPURI-CHOHAL LINE	06-07-2022	9:25	06-07-2022	16:3	7:05	BLUE PHASE N ZONE 1ST&2ND	YELLOW & BLUE PHASE ZONE 2ND&3RD	BLUE PHASE STRING INSULATOR FLASHED AT T. NO.40	PATROLL THE LINE FROM T. NO. 20-47 & FOUND BLUE PHASE INSULATOR STRING FLASHED AT T. NO.40 & REPLAED WITH 70 KN ANTI FOG NSULATOR STRING ON DATED 06/07/2022	
19	132 KV HAMIRPURI-CHOHAL LINE	06-07-2022	14:1	06-07-2022	18:32	4:22	BREAKER TRIPPED BUT NO INDICATIONS	YELLOW & BLUE PHASE N	DUE TO STORM BAMB0 FALLEN AT MID OF T. NO. 3-4	PATROLL THE LINE & FOUND BAMB0 FALLEN AT MID OF T. NO. 3-4 DUE TO STORM	
20	132 KV Phalpur -jamalpur	09-07-2022	11:59	09-07-22	14:24	2:25	Dpr R phase,E/F at 53.1 km	Dpr R phase,E/F at 53.1 km	stormy weather,ROW issue	stormy weather,ROW issue	
21	132 KV Phalpur -jamalpur	10-07-2022	14:47	10-07-22	23:20	8:33	Dpr R phase,E/F at 14.86 km	Dpr R phase,E/F at 4.5 km	transient fault due to ROW issue	transient fault due to ROW issue	
22	132kv BRMS-Dhawan	12-07-2022	16:17	12-07-22	16:50	0:33	Dpr. CN,2-1,F/4.490km	Dpr. Earthfault	During patrolling the disc insulators of B phase at Tw no.37A were found flashed and same were replaced with disc insulators.	During patrolling the disc insulators of B phase at Tw no.37A were found flashed and same were replaced with disc insulators.	
23	132kv BRMS-Kahanpur	13-07-2022	15:17	13-07-22	19:38	4:21	Dpr. AN,2-1,F/4.337km	Dpr. R phase,2-1,F/5.563km	During patrolling of this line it is found that there is illegal construction of new building between tower span no. 19-20 near to 132kv Line due to which line was tripped.	During patrolling of this line it is found that there is illegal construction of new building between tower span no. 19-20 near to 132kv Line due to which line was tripped.	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
24	132 KV MAMBUPUR CHOHAL LINE	13-07-2022	13.2	13-07-2022	10.05	1.45	BREAKER TRIPPED BUT NO INDICATIONS	YELLOW PHASE - N zone 1st 52nd	SUSPECTED TREE CUTTING DONE BETWEEN SPANE : 36-37	PATROLL THE LINE FROM T. NO 20-54 NO ANY ABNORMALITY FOUND. SUSPECTED TREE CUTTING DONE BETWEEN SPANE : 36-37 ON DATED 14/07/2022	
25	132kv BBMB Dhalwan	14-07-2022	13.13	14-07-22	15.18	2.05	Dpr. YN,Z-1.F1-29.62km	Dpr. YN,Z-1.F1-2.997km	During patrolling the disc insulators of Y phase at Tw no. 196 were found flashed and same were replaced with disc insulators.	During patrolling the disc insulators of Y phase at Tw no. 196 were found flashed and same were replaced with disc insulators.	
26	132kv BBMB Kaharpur	16-07-2022	9.47	16-07-22	13.19	3.32	Dpr. BUN,Z-1.F1-15.1km	Dpr. Y phase,Z-1.F1-5.5km	During patrolling, it was found that between tw no. 19-20 due to illegal construction of buling work pad stick was fall on the line due to which line was tripped, same was cleared from the line.	During patrolling, it was found that between tw no. 19-20 due to illegal construction of buling work pad stick was falls on the line due to which line was tripped, same was cleared from the line.	
27	132kv BBMB Dhalwan	17-07-2022	7.50	17-07-22	8.15	0.25	Dpr. R phase,Z-1.F1-18.98km	Dpr. Earthfault	The disc insulators of R phase at Tw no 241 were found flashed and same were replaced with new disc insulators.	The disc insulators of R phase at Tw no.241 were found flashed and same were replaced with new disc insulators.	
28	132kv BBMB Kaharpur	19-07-2022	23.52	20-07-22	0.08	0.16	Dpr. YN,Z-1.F1-8.522km	Dpr. Y phase,Z-1.F1-5.053km	During patrolling a wire was found on Y phase cross arm at tw no. 16 due to which line was tripped and same was cleared from the line.	During patrolling a wire was found on Y phase cross arm at tw no. 16 due to which line was tripped and same was cleared from the line.	
29	132 KV MAMBUPUR THOSHARPUR CKT NO. 1	20-07-2022	16.58	20-07-2022	18.58	2	DPR RED PHASE LF ZONE 1ST	DPR RED PHASE EF ZONE 2ND	RED PHASE STRING INSULATOR FLASHED AT T. NO 78	PATROLL THE LINE FROM T. NO. 66-85 & FOUND BLUE PHASE INSULATOR STRING FLASHED AT T. NO.78& REPLAED WITH 79 KN ANTI FOG NSULATOR STRING ON DATED 20/07/2022	




Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
30	132KV Kabeerpur-Bhogpur	21-07-2022	22:04	21-07-22	22:40	0:36	Dpr. Y phase Z-1,F-1.438km	Dpr. YN,Z-2.11.16km	The disc insulators of Y phase at Tw no.35 were found flashed and whole string is replaced with new insulators,attended earthwire breakdown at tw no.34-35-36.	The disc insulators of Y phase at Tw no.35 were found flashed and whole string is replaced with new insulators,attended earthwire breakdown at tw no.34-35-36.	
31	132 KV MP90-BHOOPUR LINE	29-07-2022	22:4	29-07-2022	23:2	0:4	RED PHASE ZONE 1ST	RED PHASE ZONE 1ST	RED PHASE STRING INSULATOR FLASHED AT T. NO 104	PATROLL THE LINE FROM T. NO. 86-113 & FOUND RED PHASE INSULATOR STRING FLASHED AT T. NO.104 & REPLAED WITH 70 KN AN11 FOG INSULATOR STRING ON DATED 01/08/22	
32	132 KV Phalpur -jamalpur	30-07-2022	17:08	30-7-22	19:33	2:25	HSD YPH	Dpr Y phase C/F at 8.7 km	bad weather heavy rain and thunderstorms	bad weather heavy rain and thunderstorms	
33	132 KV MANIPLUR-BANGA (PH)	31-07-2022	18:55	31-07-2022	19:2	0:25	RED PHASE ZONE 1ST	RED PHASE ZONE 1ST	FLASH OVER DUE TO TRANSIENT FAULT	SUSPECTED TREE CUTTING DONE AT T. NO. 8	
34	132 KV HANGA PHAGWARA LINE	01-08-2022	23:28	02-08-2022	5:05	5:37	RYB PHASE ZONE 2 ND	RYB PHASE ZONE 1ST & 2 ND	Y8B PHASE 132 KV PT DAMAGED AT 132 KV S/S1N PHAGWARA	Y8B PHASE 132 KV PT DAMAGED AT 132 KV S/S1N PHAGWARA	
35	132 KV Phalpur -jamalpur	03-08-2022	12:15	03-08-2022	13:51	1:36	Dpr R phase E/F at 15.54km	Dpr R phase E/F at 1.6 km	apparent ROW issue	apparent ROW issue	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
36	132 KV Phalpur -jamalpur	07-08-2022	18:10	07-08-2022	18:44	0:34	Opr Y phase,E/F at 3.47 km	Opr Y phase,E/F at 14.6 km	apparent ROW issue	apparent ROW issue	
37	132 KV Phalpur -jamalpur	08-08-2022	06:32	08-08-2022	12:06	5:34	Opr Y phase,E/F at 15.86 km	Opr Y phase,E/F at 3.9 km	line patrolled from tower no 10 to 27. found nothing	line patrolled from tower no 10 to 27. found nothing	
38	132Kv Kartapur-Beas	09-08-2022	10:40	09-08-22	13:32	2:52	Dys. RN Z 2.FI 22-6km	Breaker not tripped	The disc insulator of R phase at Tw no.133A was found flashed due to which line was tripped.	The disc insulator of R phase at Tw no.133A was found flashed due to which line was tripped	
39	132 KV Phalpur -jamalpur	11-08-2022	16:12	11-08-2022	16:28	0:16	DPR R ph E/F dist 13.6 km	DPR R ph E/F dist 5.3 km	heavy raining and thunderstorm	heavy raining and thunderstorm	
40	132 KV RAMRIPUR-CHERIAL LINE	11-08-2022	9:15	11-08-2022	17:45	8:3	BREAKER TRIPPED BUT NO INDICATIONS	RED PHASE N ZONE 2ND	BAMBO BUNCH FALLEN AT MD OF T. NO. 2-3	PATROLL THE LINE & FOUND BAMBO BUNCH FALLEN AT MD OF T. NO. 2-3 DUE TO STORM	
41	132 KV TANDA-BHOGPUR LINE	13-08-2022	5:25	13-08-2022	13:55	8:3	BLUE PHASE N ZONE 1ST	BLUE PHASE N ZONE 1ST	BLUE PHASE STRING INSULATOR FLASHED AT T NO.82	PATROLL THE LINE & FOUND BLUE PHASE STRING INSULATOR FLASHED AT T. NO.82	




Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HR:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
42	132 KV Gokaya-Jamalpur	23-08-2022	20:29	23-08-22	21:26	0:57	D/C R ph. Trip E/F HSU	R ph. Z 1 Dist. 5.3 Km	bad weather, thunderstorms, raining and ROW issue	bad weather, thunderstorms, raining and ROW issue	
43	132 KV M'142-BHOGPUR LINE	27-08-2022	8:02	27-08-2022	8:45	0:43	RED. PHASE ZONE 1ST	RED. PHASE ZONE 1ST	SUSPECTED FLASH DISC FOUND AT T. NO. 45.	PATROLL THE LINE FROM T. NO. 45-71 & FOUND SUSPECTED INSULATOR STRING AT T. NO. 40. WILL BE REPLACE WHEN DENGRATION IS LESS.	
44	132 KV HAMRIPUR-ZHOHAL LINE	28-08-2022	12:56	28-08-2022	10:02	0:07	BREAKER TRIPPED BUT NO INDICATIONS	BLUE PHASE N ZONE 1ST	BLUE PHASE STRING INSULATOR FLASHED AT T. NO. 1993	PATROLL THE LINE & FOUND BLUE PHASE STRING INSULATOR FLASHED AT T. NO. 1993	
45	132 KV TANDA-BHOGPUR LINE	30-08-2022	7:55	30-08-2022	8:15	0:2	YELLOW PHASE N ZONE 1ST	YELLOW PHASE N ZONE 1ST	YELLOW PHASE STRING INSULATOR FLASHED AT T. NO. 78	PATROLL THE LINE & FOUND YELLOW PHASE STRING INSULATOR FLASHED AT T. NO. 78	
46	132 KV MAJHI PUR-BANGA	01-09-2022	16:45	02-09-2022	14:15	21:3	YELLOW PHASE N ZONE 1ST	YELLOW PHASE N ZONE 1ST	YELLOW PHASE GRADING BREAK DOWN AT T. NO. 72	YELLOW PHASE GRADING BREAK DOWN AT T. NO. 72	
47	132 KV TANDA-BHOGPUR LINE	02-09-2022	7:58	02-09-2022	7:55	0:17	BLUE PHASE N ZONE 1ST	BLUE PHASE N ZONE 1ST	BLUE PHASE STRING INSULATOR FLASHED AT T. NO. 97	BLUE PHASE STRING INSULATOR FLASHED AT T. NO. 97	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sl. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
48	132 KV NAKKAN NAWANSHAHAR DKT NO. 2	09-09-2022	10:25	09-09-2022	10:47	0:22	BLUE PHASE N ZONE 1ST	BLUE PHASE N ZONE 1ST	BLUE PHASE STRING INSULATOR FLASHED AT T. NO.84	BLUE PHASE STRING INSULATOR FLASHED AT T. NO.84	
49	132 KV Goraya Jamalpur	10-09-2022	13:28	10-09-22	17:06	3:48	O/C R ph. Trip EF HSU	R ph. Z-1 Dist. 19.2 Km	Line patrolled from Tower No. 48 to 68 . Found Nothing	transient fault due to ROW issue	
50	132 KV NAKKAN NAWANSHAHAR DKT NO. 2	10-09-2022	12:45	10-09-2022	22:2	9:35	YELLOW & BLUE PHASE ZONE 1ST	YELLOW & BLUE PHASE ZONE 1ST	BLUE PHASE T-CLAMP DAMAGED AT T. NO 20	BLUE PHASE T-CLAMP DAMAGED AT T. NO 20	
51	132 KV Goraya Jamalpur	11-09-2022	16:18	11-09-22	22:13	5:55	O/C R ph. Tap L/F HSU	R ph. Z-1 Dist. 6 Km	line patrolled from tower no 10 to 29 wire removed from tower no 29	line patrolled from tower no 10 to 29 wire removed from tower no 29	
52	132kv BMBD-Dhawan	11-09-2022	8:55	11-09-22	9:17	0:22	Opr. RN,Z 1.F1 16.71km	Opr. Earthfault	The disc insulator of R phase at Tw no.261 was found faulted due to which line was tripped and same was replaced with new disc insulators.	The disc insulator of R phase at Tw no.261 was found faulted due to which line was tripped and same was replaced with new disc insulators.	
53	132kv BMBD-Dhawan	19-09-2022	13:36	19-09-22	13:55	0:19	Opr. R phase,Z 3.F1 40.44km	Not tripped	This line was tripped due to the tripping of 132kv Butari-Dhawan Line.	This line was tripped due to the tripping of 132kv Butari-Dhawan Line.	




Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization											
Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
54	132 KV Garaya-Jamapur	20-09-2022	15:58	20-09-22	20:57	4:59	O/C B ph. Trip Eff HSU	B ph. Z-1 Dist. 1.9 Km	patrolling done from tower no 0 to 10 nothing found	patrolling done from tower no 0 to 10 nothing found	
55	132 KV Phalaur -jamapur	20-09-2022	16:01	21-09-22	18:30	26:29	not tripped	B ph. Z-1 Dist. 1.2 Km	conductor breakdown between tower no 0 and 1	conductor breakdown between tower no 0 and 1	
56	132kv DUMRI Phagwara	20-09-2022	20:10	20-09-22	23:49	3:39	Opr. R phase Z-1 F3.490km	Opr. R phase Z-1 F3-13.9km	The disc insulator of R phase at Tw no 201 was found flashed due to which line was tripped and same was replaced with new disc insulators.	The disc insulator of R phase at Tw no 201 was found flashed due to which line was tripped and same was replaced with new disc insulators.	
57	132 KV MAHLPUR-HOSHARPUR (KT NO. 1)	25-09-2022	10:3	25-09-2022	19:25	8:55	RED PHASE ZONE- 1ST	RED PHASE ZONE- 1ST	RED PHASE- INSULATOR STRING FLASHED AT T. NO.60	RED PHASE INSULATOR STRING FLASHED AT T. NO.60	
58	132 KV HAMRUPUR-CHHAL LINE	27-09-2022	15:2	27-09-2022	17:1	1:5	BREAKER TRIPPED BUT NO INDICATIONS	DPR MICOMP-433 YELLOW PHASE- N ZONE- 1ST	FLASH OVER DUE TO TRANSIENT FAULT	FLASH OVER DUE TO TRANSIENT FAULT & PATROLL THE LINE ON DATED 27/09/2022 & FROM T. NO. 148 156 & 158-166 BUT NO ABNORMALY FOUND	
59	132 KV MAHLPUR-BANGA	26-09-2022	22:07	29-09-2022	22:1	24:03	YELLOW & BLUE PHASE ZONE- 1ST	YELLOW & BLUE PHASE ZONE- 1ST	YELLOW PHASE- DEADING BREAK DOWN AT T. NO.80	YELLOW PHASE DEADING BREAK DOWN AT T. NO.80	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization											
Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
P&M Circle Ludhiana											
1	400KV Mahrta- PGCL Amritsar Ckt-1	08.09.2022	18:00	11.09.2022	18:58	72:58	DPR operated, R phase, L-1 to E, Z-1, Fault Current: 6.35 KA, Distance: 35.7 KM	DPR operated, R phase L-1 to E, Z-1, Fault Current: 66 KA, Distance: 27 KM	Disc insulator string flashed on tension tower no. 57 of R-Phase	replaced flashed string with new one	
2		11.09.2022	19:01	12.09.2022	19:01	24:00	DPR operated, Y phase, L-2 to F, Z-1, Fault Current: 9.19 KA, Distance: 35.5 KM	OFF, Line was not charged	Disc insulator were flashed on tower no. 04, of Y Phase	replaced flashed string with new one	
3	220KV Bhandari- PGCL Ludhiana	12.7.2022	13:31	12.07.2022	17:40	04:11	Main 1, phase Y to phase, Distance 23.23 km, Zone-2 added, fault current Y ph: 05.11 KA, fault current Y ph: 05.91 KA	Main 1, YB phase, Distance 2.3 km, Zone-1	Transient Fault	Patrolling done by TL Ludhiana team from TN 58-64 & 10-1, No visible abnormality was found.	
4	220KV Jagran-Adwal-ckt-1	04.08.2022	22:20	05.08.2022	11:38	13:08	DPR Z-1, 2.614km 4N ph	DPR Z-1, 10.37km R-ph.	Transient Fault	Line patrolled from tower no 6 to 32. No Visible fault Found.	
5	220KV Laban- Hambran.	16.08.2022	02:02:00	16.08.2022	04:10	2:08	Not tripped	Main Protection operated (UE)	Transient Fault	Try was not taken to prevent cascading tripping because of main sources. 220KV PGCL Ckt 1 & 2 were under fault of 220KV Laban Kalar	

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH-MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
6		25.09.2022	22:55:00	26.09.2022	00:15:00	10:30	OPN-R phase,Zone 1,Current R=7.8 KA	OPN R-phase,Zone 1,Fault current R=18.50ka, distance=13.53 km	Transient Fault	Line patrolling from tower no. 1 to 17 done by ADTL, and not visible fault was found	
7	220KV Lathin-PGCL cb-1	16.06.2022	00:45:00	16.06.2022	04:28:00	3:43	Not tripped	Main 1, Z, 1,ABC phase,Fault current Fault Current not accessed by PGCL	Breakdown of jumper R-phase of bus coupler	Breakdown of jumper R phase on bus coupler was attended. As both buses are parallel	
8	220KV Lathin-PGCL cb-2	16.08.2022	05:45:00	16.08.2022	10:40:00	15:55	Main 1, Z, auto reclose,ABC phase, Y phase, Z-1, Fault current, A:620A, B:7.569 A, C:807A	Not tripped	Wave trap of Y Phase(line side) found damaged	wave trap of Y phase replaced after jampering of HTLS conductor and arranging new wave trap. Line patrolled and found nothing	
9	220KV G2-G3	06.08.2022	14:48	06.08.2022	15:28	04:40	Directional EP, Master trip	Directional EP Master trip	Due to the flashing of discs of R phase on tower no. 230	Faulty line patrolled from tower no. 219-230. Damaged discs of R phase was replaced	
10	220KV G2 - G3	06.08.2022	14:35	06.08.2022	21:15	06:40	OPN Zone-1 RYB Phase	OPN	Due to the breakdown of conductor of B-Phase on tower no. 221-222	Line charged after Clearance of conductor breakdown	
11	220KV Bhan - G2	12.07.2022	17:59	13.07.2022	01:20	02:25	Auto reclose blocked VT Fuse fail, Master trip	ON	Due to Bus Bar-2 RYB Phase PT fuse failure	Fault at Bhan S/S due to P.T. fuse failure	

*[Handwritten Signature]*

Detail Of Tripping / Breakdowns of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH-MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
12	220KV Bokara - Nubarkotta	26.07.2022	03:58	26.07.2022	13:23	09:25	DPR Zone- 1, B-phase Fault Current=6.325KA D=20km	DPR zone 1 B phase On 15km	Transient fault due to bad weather	Line patrolled by TL MGJ from tower no 85 to 133 No visible fault found.	
13	220KV Baso-Pahala - RTP	02.07.2022	05:55	02.07.2022	06:22	00:27	DPR Zone 1 R-Phase Fault Current 2.865KA D=32 km	DPR Zone 1, R Phase	Transient fault	Line charged as per instruction of J.C. Patil	
14		03.07.2022	02:42	03.07.2022	02:53	00:11	DPR Zone 1, R-Phase Fault Current 2.567KA	DPR Zone 1, R Phase	Transient fault	Line charged as per instruction of J.C. Patil	
15		16.08.2022	16:01	16.08.2022	16:45	02:44	Not tripped	DPR Zone 1, Y Phase 37.12 KM, fault current Y phase 2500 A, B phase 4800 A	Due to fault in 220KV Baso-G1 See J-Ph ACSR Conductor Breakdown between Tower No. 55 to 56	Line charged after breakdown was cleared by TL Staff	
16	220KV G1 - Baso-Pahala	03.08.2022	18:12	04.08.2022	02:17	08:05	DPR P442 Y-Ph. Fault Current 5.322KA, Zone 1, REL 670 Y- Ph, Zone 2	DPR Y-Ph, Zone 1	Y-Ph Disc Insulator String found burnt/damaged on Tower no 184	Damaged Insulator String was replaced	
17		19.08.2022	16:01	19.08.2022	01:52	09:51	DPR P442 B-Ph. Fault Current 3.514KA, Zone 1, REL 670 Y&B -Phase, Zone-1	Breaker ON	B-Ph ACSR Conductor Breakdown between Tower No. 55 to 56	Line charged after breakdown was cleared by TL Staff	




Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
19	220KV G2- Gangwal	16.07.2022	11:50	16.07.2022	18:30	06:40	MAIN 1: DPR R-Phase Zone-1 MAIN 2: DPR R-Phase Zone-1 Dist: 13 kms	MAIN 1: REL 670 A phase Zone 1	Disc insulator String flashed on R-Phase	Faulty line patrolled from tower no. 165 to 180. Disc insulator String flashed on R-Phase at tower no. 177 was found. Flashed disc Insulator String was replaced.	
19		31.07.2022	12:01	31.07.2022	19:50	07:49	MAIN 1: Mcom P-433 B-Phase Zone-1 MAIN 2: A80 (REL 670) B- Phase Zone 1 Dist: 28.7 kms. Fault Current 2.53 Per unit	MAIN 1: REL 670 C phase E/F, Zone-1 MAIN 2: MR3V, 30G, 30C Zone 1	Transient Fault due to bad weather and rain	Faulty line was patrolled from tower no 194 to 164. No Visible fault was found	
20		09.08.2022	09:51	09.08.2022	12:42	02:51	MAIN 1: Mcom G-Phase Z-1 Dist: 49.8 kms MAIN 2: REL 670 R-Phase Z-1 Fault Current 3.80 Per unit	MAIN 1: REL 670 A phase Zone-1, Carrier send E/F VT fuse failure MAIN 2: MR3V, 30G and 30 C	Transient fault	Line Charged as per instruction of PC Patola. Due to operational procedure of BBMB, RLDC & PC patola regarding issuing of charging code, line was charged after 2.51 hrs	
21		25.06.2022	17:29	25.08.2022	21:31	04:02	MAIN 1: Mcom B-Phase Zone-1 Dist: 6.6 kms MAIN 2: REL 670 B phase Zone 1 dist: 6.6 kms. Fault Current 6.75 Per unit	MAIN 1: REL 670 FAGA M/det prot., LED start trip, C phase, Zone 1, carrier send E/F, VT fuse failure MAIN 2: MR3V, 30G and 30 C	Transient Fault	Line was patrolled from tower no. 185 to tower no. 218 and no visible fault was found	
22		03.09.2022	23:52	03.09.2022	01:30	01:38	MAIN 1: Mcom B Phase Zone 1, Dist: 50 KM MAIN 2: REL 670 - B Phase ZONE-1 CH Trip Master Trip CB pole Descrepency Relay	MAIN 1: REL 670 C- Phase Zone-1 Carrier Send E/F, VT Fuse, MAIN 2: MR3V 30G, 30C	Transient fault	Line charged as per instructions of PC Patola as fault current was on the lower side	
23	220KV G1- RFP dm 1	19.07.2022	11:44	19.07.2022	18:30	06:46	DPR Zone 1, B Phase, Fault Current: 2.561KA, D=47.5 KM	DPR Zone 1, B-Phase, D=18.03km	Transient fault due to bad weather	Faulty line was patrolled by TL MGG from tower no 41 to 74. No visible fault found.	
24		26.08.2022	12:21	26.08.2022	19:45	07:24	DPR B-Ph, Fault Current: 2.298KA, Zone1, Distance 45.35 km	DPR B-Ph, Zone1, Distance: 8.205 km	Transient fault	Faulty line was patrolled by TL MGG from tower no 14 to 59. No visible fault found.	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
25		29.08.2022	11:38	29.08.2022	11:58	00:22	DPR: B-Ph, Zone 1, Distance 18.54 km, B-Ph current 5.042 KA	DPR: B-Ph, Zone1, Distance 42.80 km, B-Ph current 3.332 KA	Transient fault	Line charged as per instruction of PC Patela	
26	220KV G1 - RTP Ckt-2	01.08.2022	05:07	01.08.2022	14:40	09:33	DPR: B-Ph, Fault Current 9494.63A, Zone 1	DPR: B-Ph, Zone-1, Distance 52.15 km	B-Ph Disc Insulator String found Bashed on tower no.155	Faulty line was patrolled by TL Staff from tower no.138 to 160. B-Ph Disc Insulator String found burnt/damaged on tower no.155. Same String was replaced.	
27	220KV G1 - RTP Ckt-3	05.09.2022	04:09	05.09.2022	14:07	09:58	DPR: Main-1, R-Ph, zone1 Distance 62.01 km, Fault Current 2.672KA kA	DPR: Main-1, R-Ph, Zone1 Distance 12.94 km Current 10.14 kA, DPR: Main-2, RYB-Ph, zone1	R-Ph Disc Insulator String found Bashed on tower no. 40	Damaged Insulator String was replaced	
28		16.09.2022	11:17	10.09.2022	16:35	05:18	DPR: Main-1, R-Ph, Zone1 Distance 56.52km, Fault Current 2.415kA	DPR: Main-1, R-Ph, Zone1 Distance 6.490km, Current 13.64 kA, DPR: Main-2, RYB-Ph, zone1	R-Ph Disc Insulator String found Bashed on tower no. 24	Line Patrolled from Tower no. 30 to 16 and Damaged Insulator String was replaced	
29	220KV Baghapurana-Bajakhana Ckt-1	06.08.2022	19:24	08.08.2022	22:41	3:17	Y-φ Dr EF	YN-φ DPR 2:02 47.4 KM	Due to Bus-Bar fault at 220KV Substation Baghapurana	Due to damage of 220KV Bus Bar-01 Y-φ LA	
30	220KV Baghapurana-Bajakhana Ckt-2	06.08.2022	19:24	08.08.2022	22:42	3:18	Y-φ Dr EF	YN-φ DPR 2:02 47.2 KM	Due to Bus-Bar fault at 220KV Substation Baghapurana	Due to damage of 220KV Bus Bar-01 Y-φ LA	
31	220KV Baghapurana-Mogra Ckt-1	03.07.2022	21:40	04.07.2022	09:38	11:58	Dr EF	ON	Transient Fault	Try was taken as line was charged from other end but CB Y-φ limb not getting closed at 220KV S/S Bagapurana. After rectification of Y-φ limb closing mechanism, ckt closed at Dated 04-07-2022.	

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 03/2022 under P&M Organization

Sr. No.	Name of the Line	From		To		Duration Hr:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
32		21.07.2022	08:37	21.07.2022	11:04	2:32	De E/F	De E/F	Transient Fault due to bad weather	Line charged as per instruction of PC Patola	
33		30.07.2022	11:49	30.07.2022	13:52	2:04	De E/F	ON	Due to fault of 220KV Moga-Bajkhana Line	Due to 220KV Moga-Bajkhana Line Fault (Heavy Jerk) and no timely fault clearance(1.752 sec) by DPR Loading to Black out at 220KV Moga (Singhanwala) Line charged as per instruction of PC Patola as line was charged from other end	
34		30.07.2022	21:29	30.07.2022	21:41	0:12	De E/F	ON	Transient Fault	Line charged as per instruction of PC Patola	
35		31.07.2022	06:01	31.07.2022	06:14	0:13	De E/F	ON	Transient Fault	Line charged as per instruction of PC Patola	
36		04.08.2022	22:13	04.08.2022	22:27	0:14	De E/F	ON	Transient Fault	Line charged as per instruction of PC Patola	
37		06.08.2022	19:24	06.08.2022	21:17	1:53	ON	Y-B DPR 2.2 12.42 KM	Due to Bus Bar fault at 220KV Substation Baghapurana	Due to damage of 220KV Bus Bar-01 Y-B I.A. Line charged as per instruction of PC Patola	
38	220KV Baghapurana Moga Ckt 2	30.07.2022	11:48	30.07.2022	12:55	1:07	De E/F	ON	Due to fault of 220KV Moga-Bajkhana Line	Due to 220KV Moga-Bajkhana Line Fault (Heavy Jerk) and no timely fault clearance(1.752 sec) by DPR Loading in Black out at 220KV Moga (Singhanwala) Line charged as per instruction of PC Patola as line was charged from other end	
39		06.08.2022	19:24	06.08.2022	21:18	1:54	ON	Y-B DPR 2.2 12.42 KM	Due to Bus Bar fault at 220KV Substation Baghapurana	Due to damage of 220KV Bus Bar-01 Y-B I.A. Line charged as per instruction of PC Patola	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization											
Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
40	220KV Moga -Kotkara Crk. 1	30.07.2022	11:48	30.07.2022	12:25	0:37	ON	DPR RN-0-23, 45.28 Km 2.42KA	Due to fault of 220KV Moga-Bajkhana Line	Due to 220KV Moga-Bajkhana Line Fault (Heavy Jerk) and no timely fault clearance(1.792 sec) by DPR leading to Black out at 220KV Moga (Singhanwala) Line charged as per instruction of PC Patela as line was charged from other end	
41	220KV Moga-Kotkara Crk. 2	30.07.2022	11:48	30.07.2022	12:10	0:22	R-0 Master trip operated Auto reclose	ON	Due to fault of 220KV Moga-Bajkhana Line	Due to 220KV Moga-Bajkhana Line Fault (Heavy Jerk) and no timely fault clearance(1.792 sec) by DPR leading to Black out at 220KV Singhanwala Line charged as per instruction of PC Patela as line was charged from other end	
42		30.08.2022	19:24	08.08.2022	20:35	1:11	Dr. LF Master trip operated	ON	Due to Bus-bay fault at 220KV Substation Bhagpurana	Due to damage of 220KV Bus Bar-01 Y-0 LA, Line charged as per instruction of PC Patela	
43	220KV Moga-Bajkhana	30.07.2022	11:48	31.07.2022	21:02	38:14	Main 1 DPR Zone 1 RN-0 12.01 Km DPR Main 2 21 RN-0 12.09 Km	DPR RN-0-21 38.3 Km	1) First span between Tower no: 162) R-0 ACSR conductor (BD) 2) R-0 jumper BD on Tower no: 7 3) R-0 flashed string of disc insulators at T No 43 4) Line paralleled from Tower no. 1 to 65	As per DPR indications, from both end fault found on Tower no.43 suspension disc insulator String flashed, remaining two faults of Conductor breakdown and Jumper breakdown and also Blackout at 220KV Singhanwala are consequential to fault clearance time of 1.799 Seconds by relay. Break down attended and flashed string replaced with new one and jumpers attached.	
44	220KV Moga-Sada	30.07.2022	11:48	30.07.2022	13:02	2:04	ON	DPR zone-3 104.5 KM	Due to fault of 220KV Moga-Bajkhana Line	Due to 220KV Moga-Bajkhana Line Fault (Heavy Jerk) and no timely fault clearance(1.792 sec) by DPR leading to Black out at 220KV Moga (Singhanwala) Line charged as per instruction of PC Patela as line was charged from other end	
45		31-07-2022	21:32	31-07-2022	22:53	1:21	DPR 2 1.26 3 KM R-phase EW 5KA	DPR 21, 27 52 KM, R-phase	Transient Fault	Line charged as per instruction of PC Patela	

Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
46	220KV Muktsar-Saifq	20.08.2022	02:52	20.08.2022	03:44	0:52	ON	R-Phase, Zone 3, 100.4 km, 1.541KA	With the jerk of FAULT ON 220KV Muktsar-Ghubaya Line, Blackout occur at 220KV MUKTSAR.	Line charged as per instruction of PC Patela line was changed from One end	
47	220KV Sandhwan-Bajkhana	08.08.2022	03:29	08.08.2022	16:56	13:27	DPR Z-1 R-Phase to earth Distance 9.435 KM.	DPR Z-1 Distance 30.54 KM.	R-phase string flashed at tower no- 35.	Finally line parallel from tower no. 10 to 35. Disc insulator string flashed on R-Phase at tower no. 35 was found. Flashed disc insulator string was replaced.	
48	220KV Sandhwan-Muktsar	20.08.2022	02:48	20.08.2022	03:28	0:40	Main-1 R-Φ E/F FC-1.303 KA	ON	With the jerk of FAULT ON 220KV Muktsar-Ghubaya Line, Blackout occur at 220KV MUKTSAR.	Line charged as per instruction of PC Patela line was changed from One-end	
49	220KVMoga- PGCL, Moga Ckt-1	30.07.2022	11:48	30.07.2022	14:20	2:32	ON	R-Φ E/F HGU	Due to fault of 220KV Moga-Bajkhana Line	Due to 220KV Moga-Bajkhana Line Fault (heavy Jerk) and no timely fault clearance(1.792 sec) by DPR Leading to Black out at 220KV Moga (Singhanwala) Line charged as per instruction of PC Patela as line was changed from other end.	
50	220KVMoga- PGCL, Moga Ckt-2	30.07.2022	11:48	30.07.2022	14:20	2:32	ON	R-Φ E/F HGU	Due to fault of 220KV Moga-Bajkhana Line	Due to 220KV Moga-Bajkhana Line Fault (heavy Jerk) and no timely fault clearance(1.792 sec) by DPR Leading to Black out at 220KV Moga (Singhanwala) Line charged as per instruction of PC Patela as line was changed from other end.	
51	220KVMoga- PGCL, Moga Ckt-3	30.07.2022	11:48	30.07.2022	14:21	2:33	ON	R-Φ E/F HGU	Due to fault of 220KV Moga-Bajkhana Line	Due to 220KV Moga-Bajkhana Line Fault (heavy Jerk) and no timely fault clearance(1.792 sec) by DPR Leading to Black out at 220KV Moga (Singhanwala) Line charged as per instruction of PC Patela as line was changed from other end.	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
52	220KV Moga - PGCL Moga CB-4	23.07.2022	19:25	23.07.2022	19:06	27.41	Pilot Wire Operated	Pilot Wire Operated	Transient Fault	Line energised after Pilot wire testing on Dated:23-07-2022, testing of Line C1 & C8 on Dated:23-07-2022 by protection team at 220KV SS Moga End & clearance from AEE/TL, Moga	
53		23.07.2022	19:06	26.07.2022	16:15	69:09	Pilot Wire Operated	Pilot Wire Operated	Fault is attributable to faulty Cot of Supervision relay of Pilot wire relay	Due to Faulty NLT Cot of HDRM4 for Supervision Relay at Power Grid End. After clearance from PGCL, Moga & Keeping P/Wire out, ok energised.	
54		30.07.2022	11:48	30.07.2022	14:21	02:33	ON	6-0 E/F HSU	Due to fault of 220KV Moga-Bajajwana Line	Due to 220KV Moga-Bajajwana Line Fault (Heavy Jerk) and no timely fault clearance (1.792 sec) by DPR leading to Black-out at 220KV Moga (Simharwala) line changed as per instruction of J.C. Pabala as line was changed from other end	
55	220KV Gurgaon - Jhajjar	26.08.2022	16:42	26.08.2022	17:35	05:33	Not Report	DPR 2-1 F1 8.2 km-13.25	Transient Fault	Line galtered from tower no. 12 to 26 and No visible fault found	
56		17.08.2022	15:35	12.08.2022	16:48	03:12	DPR 2-1 F1 33.2 KM/HS Phase	DPR 2-1 F1 6.14 km HV-gh	Transient Fault	Line galtered from tower no. 12 to 36 and No visible fault found	
57		26.09.2022	23:23	27.09.2022	11:35	12:12	DPR 2-1 B-Phase	DPR 2-1 B-Phase 22.3KM	Transient Fault	Patrolling done from TN 64 to 64 No visible abnormality was found	



Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
58	132KV Sarsahi-Moga	08.08.2022	15:57	08.08.2022	16:20	00:23	R/YB-phase, Master Top	NOT TRIPPED	Transient Fault	Line charged as per instruction of JIC Patna.	
59		10.08.2022	00:22	10.08.2022	12:28	12:04	DPR Z-2 FL 36.80 KM R/YB-Phase	DPR Z-1 FL 38.80 KM Y- PH	Transient Fault	Line patrolled from tower no. 215 to 240 and No Visible fault Found.	
60		22.08.2022	23:48	23.08.2022	09:40	09:52	DPR Z-1 FL 9.823 KM R/YB-Phase	DPR Z-1 LER FL 38.1 km Y-N PH	Transient Fault	Line patrolled from tower no. 116 to 132 and No Visible fault Found.	
61		21.09.2022	14:00	21.09.2022	15:47	05:41	DPRS Z-1 Y Phase, I.C. 1332KA	DPR Z-1 Y Phase, I.C. 2036A	Transient Fault due to bad weather	Patrolling done from TN 148 to 169. No visible abnormality was found.	
62	142KV Ghulal-Jamshaur cat 1	16.07.2022	22:08	17.07.2022	18:27	08:13	EF 105U, 2A, 59.57A, IS-170 50A, IC-2264 67A, IN-2276 30A	R-Phase EF ZONE-1 9.68KM	Via of newly constructed tower by TISC Mohal between Tower No. 358 & 359	Due to newly constructed tower by TISC Mohal, Line Charged after Cleared Via.	
63	132KV Ghulal-Chamkaur Sahib	11.08.2022	15:05	11.08.2022	19:22	04:17	EF 105U, Fault current 1853 A	DPR Z-2, R/F, Y phase	CHAMKOUR SAHIB LINE, Y-PHASE PT DAMAGE AT GHULAL S/S	The line was charged after removing the damaged PT.	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
64	132KV Ghata - Patala	15.07.2022	16:05	15.07.2022	19:16	01:11	DPR BN PHASE Master TRIP	DPR CN PHASE 0.7KM M/TRIP	Transient Fault	Line Charged as per instruction of PC patala	
65		17.07.2022	06:25	17.07.2022	09:26	01:01	E/F HSL Fault current 1640 A. R phase	R PHASE_ZONE-1 25.1KM	Transient Fault	Line Charged as per instruction of PC patala	
66		21.07.2022	07:26	21.07.2022	16:46	09:23	E/F HSL Fault current 2274 A. Y Phase	Not Tripped	Y-PHASE LINE PT DAMAGE	Y-PHASE LINE PT Replaced	
67		11.08.2022	15:13	11.08.2022	11:43	06:28	Not Tripped	DPR CN PHASE 2 2.20KM	CH-2000V 2.20KM LINE Y-PHASE PT DAMAGE AT GHATA SS	The line was charged after removing the damaged Y-Phase PT	
68	132KV Ghata - Dapaha	11.08.2022	11:02	11.08.2022	11:50	00:45	DPR Zone 1 E/F	Breaker not installed	Transient fault	Line charged as per instruction of PC Patola as it is a single circuit source.	
69		21.08.2022	08:45	21.08.2022	09:28	00:43	DPR Zone 1 E/F	Breaker not installed	Transient fault	Line charged as per instruction of PC Patola as it is a single circuit source.	




Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
70	132KV Dohara -Banspur	24.07.2022	01:06	24.07.2022	01:26	00:19	EF HSI, Zone -1	Breaker not installed	Transient fault	Line charged as per instruction of PC Patola as it is a single circuit source.	
71	132KV Banspur -Sihora	08.08.2022	04:20	08.08.2022	04:35	00:15	HSU EF	Breaker not installed	Transient fault	Line charged as per instruction of PC Patola as it is a single circuit source.	
72		11.08.2022	15:05	11.08.2022	15:53	00:50	HSU EF	Breaker not installed	Due to bursting of CT of 132KV Ghulab-Chankaur Sahib cell at 220KV Ghulab	Line charged as per instruction of PC Patola	
73		14.08.2022	00:05:00	14.08.2022	00:15:00	00:10	HSU EF	Breaker not installed	Transient fault	Line charged as per instruction of PC Patola as it is a single circuit source.	
74		15.08.2022	00:07	15.08.2022	00:42	00:35	HSU EF	Breaker not installed	Transient fault	Line charged as per instruction of PC Patola	
75	132KV Ghulab -Dhamachpur She.	08.08.2022	19:01	08.08.2022	19:27	00:22	OPR Z-1, Fault current 2306 A, S-Phase, Master trip	Breaker not installed	Transient fault	Line charged as per indication of PC Patola as it is a single circuit source.	
76		20.08.2022	18:28	20.08.2022	18:52	00:24	OPR Z-1, Fault current 2388 A, Y-Phase, Master trip	Breaker not installed	Transient fault	Line charged as per instruction of PC Patola as it is a single circuit source.	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sl. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
77	132KV Dhahake- (Moga-1) Dharmkot	24.07.2022	04:35	24.07.2022	05:08	00:33	DPR BN-4 Z 16.7 KM	OFF	Transient fault	Line charged as per instruction of PC Patela	
78		25.07.2022	19:20	25.07.2022	19:33	00:13	Y-Phase E/F	ON	Transient fault	Line charged as per instruction of PC Patela	
79		26.07.2022	02:58	30.07.2022	13:06	10:50	Y-4 E/F	SCOT 1	Transient fault	Line patrolled from Dhahake to Moga1 (Tower no 1-14, 14(A& 14B) and from Moga-1 to Dharmkot (Tower No. 1-30) but no visible fault found and line energised.	
80		14.08.2022	02:16	14.08.2022	10:39	08:00	DPR SN-4 Z 13.5 KM	OFF	Transient fault	Line patrolled from Dhahake to Moga1 (Tower no 1-14, 14(A& 14B) and from Moga1 to Dharmkot (Tower No. 1-30) but no visible fault found and line energised.	
81	132KV Faridkot-Dharmkot	30.07.2022	11:50	30.07.2022	12:24	00:36	E/F	ON	Transient Fault	Line charged as per instruction of PC Patela	
82		19.08.2022	02:30	19.08.2022	16:12	13:42	B-Phase E/F	ON	Due to breakdown of earth wire from Tower No. 108 to Tower No.116	Line energised after clearance of spans from earth wire.	
83	132KV Ferozeshah Mansa Singh Wala	07.07.2022	07:45	07.07.2022	12:30	04:45	E/F	ON	Due to breakdown of earth wire on tower No. 146-147, 147-148	Line energised after clearance of spans from Earthwire	



Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
84	132KV Mana Singh Wala / conceper	07/07/2022	07:45	07/07/2022	08:05	00:20	ON	DPR Z-2 13.7 KM R-Phase	Due to breakdown of earth wire on tower No 146-147,147-148 on 132KV / Ferozshah - Mana Singh Wala Line.	Line Charged as per instruction of PC patela.	
85											
86		05/08/2022	20:35	05/08/2022	11:35	15:00	DPR Zone-1 Y-Phase, Distance-3.8km	DPR Zone-1 Y-Phase	Transient fault	Complete Line over no- 164Q to 198 patrolled from Mana Singh wala to Ferozpur, no-voiding found, and line energised.	
87	132KV Moga / conceper	25/08/2022	16:51	25/08/2022	18:17	01:26	DPR RY-Ø-2, 1.4, 4.4 KM	Ground out, Insulator	Transient fault	Line Charged as per instruction of PC patela.	
88	132KV Moga / conceper	01/07/2022	12:17	07/07/2022	12:24	07:07	Ø-Ø-5	ON	Transient fault	With CB fault on 132KV Moga Jambpur Line.	
89		03/07/2022	21:42	04/07/2022	09:58	12:16	DPR ØN-Ø-3.4 KM	ON	Transient fault	Line patrolled from tower no- 10-40 and no visible fault found.	
90		29/07/2022	02:16	29/07/2022	02:25	00:15	DPR Z-1, ØØN-Ø	ON	Transient fault	Line Charged as per instruction of PC patela.	
91		29/07/2022	12:13	29/07/2022	15:48	03:35	DPR ØN-Ø-5.032 KM	ON	Transient fault	Line patrolled from tower no- 10-40 and no visible fault found.	
92		30/07/2022	11:48	30/07/2022	12:20	00:32	ØN-ØF	ON	Due to fault of 220KV Moga-Dapkhana Line.	Due to 220KV Moga (Dapkhana Line Fault (Heavy Jerk) and no timely fault clearance(1.792 sec) by DPR Leading to Black out at 220KV Moga (Singhawaala) Line charged as per instruction of PC Patela as line was charged from other end.	
93		04/08/2022	23:17	05/08/2022	17:50	18:33	DPR ØY-Ø-2, 1.5, 227 KM	ON	Insulator string flash at R&Y-Ø of Line 22	On tower top patrolling, disc insulator string found punctured of R&Y phase, strings replaced and line energised.	
94		06/09/2022	20:04	06/09/2022	20:35	00:31	DPR ØN-Ø-2, 1.5, 8 KM	ON	Transient Fault	Line Charged as per instruction of PC patela.	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration :HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
95		09.09.2022	07:49	09.09.2022	03:04	00:16	DPR RN-0 2-1 5.4 KM	ON	Transient Fault	Line Charged as per instruction of PC patela	
96		09.09.2022	04:12	10.09.2022	15:56	11:44	DPR RN-0 2-1 5.8 KM	ON	Insulator strings flash at R-0 of E/No. 24.	Line charged after disc insulator String replaced	
97	132KV Moga-Interlink Ckt 1	31.07.2022	10:18	01.07.2022	10:34	00:16	E/F	ON	Transient Fault	Line Charged as per instruction of PC patela	
98		15.07.2022	12:05	15.07.2022	20:45	08:40	DPR YN-0 2-1 4.8 KM	DPR YN-0 2-2 & L/F	1 No. Insulator strings flash at Y-0 of T/No. 233 and conductor breakdown at 1st span near 132KV Moga-1 grid	String replaced and Conductor breakdown attended	
99		26.07.2022	09:20	27.07.2022	13:45	04:25	E/F	ON	Jumper damaged on B-0 Tower No 232	Line Charged after Jumper replaced	
100		26.08.2022	12:46	26.08.2022	11:15	08:29	DPR-0 DPR 2-1 2.07 KM	ON	Due to Damage of cell of Unit 02 at 132KV C/Bank 01 at 220KV S/S Moga (Singhawa)		
101		132KV Moga-Interlink Ckt 02	27.07.2022	05:58	27.07.2022	05:25	01:26	DPR RN-0 2-1 5.4 KM	DPR RN-0 2-2 1.4 KM	Transient Fault	Line Charged as per instruction of PC patela
102		01.07.2022	10:18	01.07.2022	10:34	00:16	E/F	ON	Transient Fault	Line Charged as per instruction of PC patela	
103		05.06.2022	12:46	05.06.2022	11:15	08:29	DPR-0 DPR 2-1	ON	Transient Fault	Line Charged as per instruction of PC patela	
104		04.09.2022	14:26	04.09.2022	16:58	02:32	DPR YN-0 2-1 5.4 KM	YN-0 1-1	Transient fault	Line pending from tower no 1-25 as per DTR location and insulator fault found	
105		05.09.2022	11:50	06.09.2022	11:12	12:22	DPR YN-0 2-1 4.4 KM	DPR YN-0 2-1	Tripping due to Bird Nest	Line picketed and nothing found except Bird Nest removed from T.No. 9, 13, 16, 18 & 20.	
106	132KV Moga-Solan	31.07.2022	10:17	01.07.2022	10:28	00:11	E/F	ON	Transient fault	Line Charged as per instruction of PC patela	
107		30.07.2022	11:48	30.07.2022	12:26	00:38	ON L/F	ON	Due to fault of 220KV Moga-Baikhura Line	Due to 220KV Moga-Baikhura Line Fault (Wavy Jerk) and no timely fault clearance (1.792 sec) by DPR (leading to Black-out at 220KV Moga (Singhawa)) Line charged as per instruction of PC Patela as line was charged from other end	
108		05.08.2022	10:46	05.08.2022	11:27	00:41	YS-0 DPR 2-2 5.4 Km	ON	Due to Damage of cell of Unit 02 at 132KV C/Bank 01 at 220KV S/S Moga (Singhawa)		

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**Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization**

Sr. No	Name of the Line	From		To		Duration HH-MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
109		10.08.2022	00:30	10.08.2022	01:32	01:02	R-Φ 1k-EP	ON	Cascade Tripping, Earth wire B/D on Kulkaroi - Firozshah Line caused this cascade tripping.		
110		11.09.2022	16:15	13.09.2022	19:25	52:10	DPN RY-Φ 2-1, 13.312 KM, EP	DPN RY-Φ 2-1, 7.6 KM	V-Φ Conductor B/D at LLO tower no. 27M7 near Solan S/S/In. line changed after clearance from AEE/TL, Makhu.	Conductor breakdown attended	
111	132KV Solan-Kulkaroi	10.08.2022	01:10	10.08.2022	01:30	20:00	R-Φ 1k-EP	ON	Cascade Tripping Earth wire B/D on Kulkaroi - Firozshah line caused this cascade tripping.	Line patrolled from tower no 70-96 nothing found.	
P&M Circle Patrole											
1	132 KV ROPAR-NAGKAN	02.07.22	05:34	02.07.22	12:30	07:29	DPN RY-Φ 2-1, 5.0km, Makhu/In	DPN RY-Φ 2-1, MASTER TRIP	During patrolling, no visible damage lightning at Tower no. 94 B phase, all no disc insulator get flashed	Downed D/C, D/C B & C/D/S was replaced under PTW on 12/07 (11.05-11.50 hrs)	
2	132 KV ROPAR-NAGKAN	02.07.22	05:34	02.07.22	12:09	06:32	DPN RY-Φ 2-1, 11.1-1 4.5KM MASTER TRIP	L-2L-3, 27.39KM MASTER TRIP	Due to lightning and thunder storm	As per relay indication, patrolling is done from tower no. 81-153 and all jumpers, suspension clamps, tension fittings, nut bolts and clearances from trees found ok.	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization											
Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
3	132 KV GOPAL GARKKAN	07.07.22	03:35	08.07.22	04:22	00:47	DPR ON PHASE Z-1 E1-1 11.7KM MASTER TRIP	S-3,7,1,20.7KM MASTER TRIP	Due to bad weather and thunderstorm. During Patrolling no visible fault found	As per relay indication, patrolling is done from tower no. 48, 90 and all jumpers, suspension clamps, tension fittings, nut bolts and clearances from trees found ok	
4	220 KV Fagamma Raja Raja CAT	11.07.22	07:01	11.07.22	10:53	03:51	Main-1 Indicator R Phase, Zone-1, distance 10.77 Km Current IA: 6.628 KA, Main-2 Distance cell: Zone-1, distance 10.79 Km, Current IA: 6.628 KA	OP Release main 1&2 dist: 10.5 km	Line was patrolled thoroughly but no visible fault	bridge at TL no. 50 (which was located in the premises of Angel Valley school) was brought into the notice of the office by their staff	
5	132 KV WOSABE TITLA V	15.07.22	14:05	15.07.22	14:14	00:10	DPR ON PHASE Z-1 MRO11 R TRIP	DPR ON PHASE MRO11 R TRIP	Due to heavy rain, high water level, during patrol at tower 3888 no. 164-165	As per relay indication, patrolling is done from tower no. 101, 111 and all jumpers, suspension clamps, tension fittings, nut bolts and clearances from trees found ok	
6	220 KV Fagamma Raja Raja CAT	16.07.22	22:19	17.07.22	00:45	00:26	Main-1 Indicator A, Zone-1, and Release Current IA: 3.97 KA Main-2 Distance cell: R Phase Zone-1, 2 & 3, distance: 15.55 Km IA: 3.187 KA	OPTR out correct in 12.450 km from Location 4 TRIP	Due to heavy thunderstorm, high water level, during patrol at tower 3888 no. 164-165, conductor steel, shank of 200 vs Fagamma Raja Raja cat name in insulator plate with 10KV POC, DPR and stuck at trip	Discussion with concerned (P&M) office regarding the issue & instructions from the authority's clearances in 132KV WOSABE and 132KV TITLA	
7	220 KV Fagamma Raja Raja CAT	16.07.22	22:15	17.07.22	00:11	00:56	Main-2 Distance 7.500 KM Z-1 Main-1 Distance 6.865 KM R Phase 7.500 KA Z-1		Due to heavy thunderstorm	As per relay indication, patrolling is done from tower no. 102, 130 and all jumpers, suspension clamps, tension fittings, nut bolts and clearances from trees found ok	
8	132 KV GOPAL KOTLA 3	16.07.22	20:41	17.07.22	01:10	04:28	DPR AB/phase Z-1, E-1, 13.1KM Master trip	AB PHASE Z-1, 13.5 KM MASTER TRIP	Due to bad weather and thunderstorm. During Patrolling no visible fault found	As per relay indication, patrolling is done from tower no. 102, 130 and all jumpers, suspension clamps, tension fittings, nut bolts and clearances from trees found ok	

**Detail Of Tripping / Breakdown in Transmission Lines for The Quarter Ending 03/2022 under P&M Organization**

Sl. No	Name of the Line	From		To		Duration HH:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analyst/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
8	132 KV RCDPM-CHURAL	21/07/22	01:17	21/07/22	16:48	09:21	DPR-B PHASE 2-1 45.7 KM MASTER TRIP	X PHASE MASTER TRIP	X PHASE PT GOT DAMAGED at 220 KV S/S CHURAL	Damaged PT Replaced	
10	132KV Rajar Highway Karali	30/07/22	00:06	30/07/22	09:19	00:11	AN phase 2-1 FT-1 11KM master trip		During Patrolling no visible fault found	As per relay indication, patrolling is done from tower no-28, 46 and all jumpers, suspension clamps, tension things, nut bolts and clearances from trees found ok.	
11	220 KV Nanna Talagachala T442	04/08/22	19:29	04/08/22	21:28	22:21	DPR Max 1-0-0, 2-1-0, 3-0PWA, 1-3-0, 23A, 25-971A, AR optd. DPR Max 2-0-0, 2-1-0, 3-03WA, 1-3-004A, 0.051KM AR optd	DPR A-D, B-20A, 1-0-0 5:50PM	Due to the disc insulator has been failed at tower no. 37	Failed disc string has been replaced on 09/08/2022 by CDD A/L/S/PS/CC Topara	
12	132KV Jambhali	04/08/22	19:40	04/08/22	21:25	20:09	DPR-B Phase 2-1	DPR-B Phase 2-1 10:02PM	Due to phase string (ins string) has about 50% to 5% damage	Due to phase string (ins string) has about 50% to 5% damage. Insulator string of party 7 was damaged found which was replaced under PTW no 24 02 01 17 30	
13	132 KV RCDPM-CHURAL	04/08/22	19:28	04/08/22	21:25	00:21	DPR-CN PHASE 2-0-0 MASTER TRIP	DPR HIGH SET MASTER TRIP	Due to High set when trip has been checked with the setting. Trip has been done as per the variable's instructions. Supply not affected.		
14	132 KV RCDPM-CHURAL	04/08/22	19:31	04/08/22	21:24	01:57	DPR-CN PHASE 0-0-0 KM MASTER TRIP	MASTER TRIP	Due to bird nest & china thread wound around B phase of tower no 101	As per relay indication, patrolling is done from tower no 150-165 and found china dor string at tower no 161 B phase were removed Under PTW no 7 (20.40 21.25)	

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Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization

Sr. No	Name of the Line	From		To		Duration HH:MM	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
21	132 KV Ropar - RTP line	4/09/22	1:45	4/09/22	2:07	00:12	B phase zone 1-148.2 km	B phase zone 1-2380 km	As per relay indication, patrolling is done from tower no. 1-15 and found that china made dpr string touched the conductor at tower no 15 B-phase and on earth wire which was entangled upto top crossarm of tower	Repaired under P/W 01 dated 04/09/22 (12:58-13:32)	
22	220 KV Gurgaon- Matha line	08/09/22	12:57	08/09/22	14:51	01:54	C phase zone-133.95 Km	B phase zone- 1.37 km	No fault found	As per relay indication, patrolling is done from tower no. 100-121 and all jumpers, suspension clamps, tension fittings, nut bolts and clearances from trees found ok	
23	132 KV Ropar - RTP line	9/09/22	4:49	9/09/22	5:58	00:17	B phase zone 1-148.2 km	B phase zone 1-2382 km	As per relay indication, patrolling is done from tower no. 3-15 and found that at tower no 11 B phase 01 no disc insulator got finished due to bridge	Repaired under P/W 01 dated 09/09/22 (12:05-15:45)	
24	33 KV Ropar - Ropar - Jind - KM	11/09/22	18:11	11/09/22	18:45	00:32	B phase 121	insulator tripped	As per relay indication, patrolling is done from tower no. 14 at phase 01, no disc insulator got finished due to bridge	Repaired under P/W 01 dated 13/09/22 (12:00-13:30)	
25	132 KV Matha-2 - ST. Ropar line	12/09/22	18:56	12/09/22	19:36	00:41	Zone 1-121 Zone 1-10.2 Location: 5.100km to 0-340KA	Zone 1-121 Zone 1-10.2 10KM/10.2-4.57KA	As per relay indication, patrolling is done from tower no. 10-11 and found that at tower no 11 B phase 01 no disc insulator got finished due to bridge	Repaired under P/W 01 dated 13/09/22 (12:00-13:30)	
26	220 KV Ropar-Lahna KM - 2	13/09/22	11:24	13/09/22	18:38	01:04	Zone 1-21 Phase A/G, Ia 4.27KA, Ib-0.56KA, Ic, 1.03KA, Fault Dist-36.6 km Zone 2, Zone 2, Fault Dist- 37.43km, Ia-4.305 KA, Ib - 0.45 KA, Ic 0.99KA	not tripped	Not found	Repaired arranged at 220 KV Lahna for 01-06 lines	

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**Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization**

Sr. No	Name of the Line	From		To		Duration	Relay indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		HH:MM	This End			
21	220KV MCHW-12 DERABASSI (P)	13.09.22	17.34	13.09.22	18.15	00.41	OP	Not tripped	Line charged after instruction from P.C. Dalake & Kar P & M Mohan	Maloperation of GEF relay	
26	220KV JATEL DERABASSI	13.09.22	17.24	13.09.22	19.01	01.29	Man 1 OPN - Phase B Phase 2, 2 to 3070A to 054A, Man 2 OFF, R-Phase R phase 2 2 to 3060A to 055A	Not tripped	Line charged after instruction from P.C. Dalake & Kar P & M Mohan	Due to temporary R phase to E/F	
25	220KV Rajahmundry	13.09.22	12.54	13.09.22	19.01	21.03	OPN 1 27 Phase 2, 2 to 452A to 0154A, 1 to 1040A, 3 and 2 to 12.4m, Man 2 - 2004-2 Fault DSG - 27 0200 to 4.27NA to - 0.05KA to 0.96KA	Not tripped	Line charged after instruction from P.C. Dalake & Kar P & M Mohan	Due to temporary R phase to E/F	
24	220KV Rajahmundry	13.09.22	17.14	13.09.22	18.42	05.49	OPN 1 27 Phase 2, 2 to 452A to 0154A, 1 to 1040A, 3 and 2 to 12.4m, Man 2 - 2004-2 Fault DSG - 27 0200 to 4.27NA to - 0.05KA to 0.96KA	Not tripped	Line charged after instruction from P.C. Dalake & Kar P & M Mohan	Due to temporary R phase to E/F	
27	132KV Rajahmundry	15.08.22	08.57	15.08.22	09.27	01.30	OPN 2 phase 1 to phase 2 to 10	Not tripped	Line charged after instruction from P.C. Dalake & Kar P & M Mohan	All primary insulation, peeling of wire and all jumpers, suspension clamps, tension fittings, nut bolts and clearances from trees found ok	
32	132KV Nakkasam Rajahmundry	17.09.22	13.24	17.09.22	15.44	00.20	A-Phase 2/F 2 to 10 MCM	L-1, 2 to 21.4 KM	During Patrolling no visible fault found	As per relay indication, patrolling is done from tower no. 65-74 and all jumpers, suspension clamps, tension fittings, nut bolts and clearances from trees found ok	




**Detail Of Tripping / Breakdown of Transmission Lines for The Quarter Ending 09/2022 under P&M Organization**


Sr. No	Name of the Line	From		To		Duration HR:MM	Relay Indication		Cause of Tripping / Breakdown	Tripping Analysis/ Remedial Measures Taken	Remarks
		Date	Time	Date	Time		This End	That End			
23	220KV Mahabubnagar-DPR	15.09.22	21:06	15.09.22	22:04	05:48	Phase 1: 1.30KA 2.1 m VA 15.04KM & 13.14 Mile-2.1 Phase 2: 1.87.46KA 15.94KM	DPR Main 1: 4.03KA DPR 5.50KA 2 7.62KM & DPR Main 2 2.1 110KV, 2M3R, 1HZ1	After relay tripping from tower no 3046A has been done and checked with fault locator no fault found. As per instructions of PC, Patola line charged.	After fault tripping was done on dated 15.09.22 and Phase B phase disc insulators string on tower no. 45 flushed. Flashed disc string at tower no 45 has been changed on 20.09.2022	
24	132 KV Assar-R.T.P	23.09.22	21:47	23.09.22	22:39	00:50	A phase zone 1 2.870 km	R phase zone 1 6.950 km	As per relay indication, tripping is done from tower no. 120. As per instructions of PC, Patola line charged.	As per relay indication, tripping is done, area of jumpers, suspension clamps, tension strings, nut bolts and clearances from trees found ok.	
25	132 KV Assar-R.T.P	24.09.22	21:40	24.09.22	22:00	00:20	R phase zone 1 1.250 km	R phase zone 1 1.150 km	As per relay indication, tripping is done from tower no. 120 and found that at tower no. 118 phase D1 no disc insulator got flushed due to bridge.	Replacement done 1 through 118 tower.	
26	132 KV Assar-R.T.P	27.09.22	00:18	27.09.22	00:24	00:05	DPR 132 KV Phase 1 Phase 2 Mahabubnagar	Phase 1 1.150 km Phase 2 1.150 km	During tripping from tower no. 120.	As per relay indication, tripping is done from tower no. 120. As per instructions of PC, Assar line charged.	
27	132 KV Assar-R.T.P	28.09.22	10:12	28.09.22	10:45	00:33	DPR 132 KV Phase 1 Phase 2 MASTER TRIP	Phase 1 1.150 km Phase 2 1.150 km	During tripping from tower no. 120.	As per relay indication, tripping is done from tower no. 120. As per instructions of PC, Assar line charged.	

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## Annexure-D

Monthly Status of SAMAST Project as on 10.10.2022					
Project Start Date: 04.03.2022					
Project End Date: 04.03.2023					
Sr. No.	Activity	As per Approved Timeline	As per latest Timeline submitted by firm	Status	Remarks
1	Signing of Contract Agreement	29.03.2022	29.03.2022	Signed on 29.03.2022	As per schedule
2	Survey	01.04.2022 - 15.08.2022	01.04.2022 - 15.10.2022	Survey of all stations completed	The firm has completed survey of all locations including RE and Railway TSS.
3	Submission & Approval of Drawings, Detailed Requirement Specification etc.	04.03.2022 - 20.05.2022	04.03.2022 - 30.09.2022	Detailed Software Requirement Specification for 11 nos. software modules out of total 13 nos. Software Modules approved for development of softwares.	<p>The firm has submitted the Detailed Software Requirement Specification for MDP Module &amp; DAS Module after incorporating all the necessary changes as intimated by the end users. The modules are under review.</p> <p>The Open Access Entity Registration Module, Demand Forecasting Module and Scheduling Module has been developed &amp; demonstrated on Test environment of the vendor and is under testing by end users of PSTCL.</p> <p>Open Access Management, Transmission Outage Planning Module, Energy Accounting &amp; Settlement Modules are under development.</p> <p>Data-centre equipment is expected to be delivered by last week of November.</p> <p>The parameters of Energy Meters have been confirmed for production based on go ahead given by PSPCL.</p>
4	Manufacturing and Inspection	15.07.2022 - 20.10.2022	15.09.2022 - 30.06.2023	Not yet started	Delivery of data-centre equipments alongwith first lot of energy meters & other substation equipments is expected by end of Nov/2022.
5	Supply	15.07.2022 - 20.10.2022	15.09.2022 - 30.06.2023	Not yet started	Not yet started
6	Establishment of Data Centre	05.08.2022 - 25.08.2022	25-11-2022 - 25-12-2022	Not yet started	Not yet started
7	Installation & Commissioning of Substation End Equipments	01.09.2022 - 28.02.2023	20-12-2022 - 10-08-2023	Not yet started	Not yet started
8	Development, Testing & Commissioning of Software Modules Phase-1 (Scheduling, Forecasting & Open Access Module)	11.03.2022 - 22.09.2022	11.03.2022 - 22.10.2022	Phase-1 modules under development	Phase-1 modules i.e. Demand Forecasting & Scheduling module, Entity Registration Module have been demonstrated and are in test phase. Open Access Software Module is under final stage of development.
9	Development, Testing & Commissioning of remaining Software Modules	26.08.2022 - 01.03.2023	26.08.2022 - 01.03.2023	under development	Open Access Management, Transmission Outage Planning Module, Energy Accounting & Settlement Modules are under development.
10	Pre-commissioning & Testing of complete project	13.02.2023 - 20.02.2023	10.08.2023 - 20.08.2023	Not yet started	Not yet started
11	Completion of Project and Handover	04.03.2023	31.08.2023	Not yet started	Not yet started
12	Financial Closing with NLDC, POSOCO.	—	30.09.2023	Not yet started	Not yet started

  
 Chief Engineer, LOC,  
 PSTCL, Ahlowal, Patiala.

