

Detailed Report

Date of Submission : 27-07-2026 17:30

SPRING_PUGALUR - 230KV tripped at 25-07-2026 14:28 and restored at 27-07-2026 16:49

Summary of Event (घटना का सारांश) : A **transient Y-phase to Earth (L2-N) fault** occurred on the 230 kV Pugalur–Sprng Mulanur line. Main-01 ABB REL670 operated correctly in **Zone-1**, Main-02 P444 provided corresponding forward distance protection operation, and the line was isolated successfully by opening the line circuit breaker. The event is indicative of a line fault within the protected line section, likely closer to the Mulanur terminal. suspected insulator flashover.

Time and Date of the event (घटना का समय और दिनांक) : 25-07-2026 14:28

Name of the Substation/Generating Station/Pooling Station affected (Along with Voltage level) : SPRING_PUGALUR - 230KV

Event Category (श्रेणी के साथ इवेंट प्रकार) : GD - 1

Location/Control Area (स्थान/नियंत्रण क्षेत्र) : TAMILNADU

Configuration of Bus (HV/LV) . Along with details of Bus split Operation (if any) :

Bus Configuration Type : Double Bus with Bus coupler

Bus Coupler Status : NA

Bus 1 Connected Elements	Bus 2 Connected Elements	Bus 3 Connected Elements	Bus 4 Connected Elements
1. SPRING_PUGALUR - 230KV - Bus 1	1. SPRING_PUGALUR - 230KV - Bus 2		

Station Connectivity / SLD during antecedent : No shutdown / Breakdown. Total MW export is around 250 MW.

Weather Conditions : Normal

Elements under outage prior to the event : 1. 230KV-PUGALUR-SPRING_PUGALUR-1

Other Information (Antecedent Cnditions) : SPRNG END ZONE-01 Protection operated, Fault recorded as Y-G Fault, A/R operated. Line patrolling carried out found no abnormalities.

Renewable Energy Trip : False

Details of SPS Operation (if any): : False

Reason of tripping : Fault Tripping

Type of Fault : SLG

phases inv :

Auto Reclosure Operation : Yes

Fault Clearing Time (ms) : 60.0

Load and Generation Loss (लोड और जेनरेशन हानि) :

Total Generation Loss (MW)	Total Load Loss(MW)
250 MW	0 MW

Duration of interruption (रुकावट की अवधि) :

Details of Equipment Failure (if any during the :

event):

Equipment Type	Equipment Make
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List of elements tripped during the event	:	1. 230KV-PUGALUR-SPRING_PUGALUR-1
Station Connectivity/SLD during the event	:	station condition normal
Analysis of the event	:	As per Relay DR analysis it is understood that Single to Groud fault occured in Y-Phase. Zone-01 Protection operated. A/R initiated and operated. Carrier send to PGCIL end. Fault seems to be transient in nature. Incoming supply got failed die to 3ph CB open at PGCIL end.
Protection / Operational Issues observed	:	station condition normal. no operational issues observed.
Restoration Details	:	after line patrolling no observations found. test charged line stood ok.
DR Time synchronization issues observed (सुरक्षा/ प्रचालन समस्या)	:	False
Remedial Measures Taken (सुधारात्मक सुझाव)	:	230KV Line inspection inititated and no observations found. Test charged the 230KV Line and charged stood ok.
Relay/PLCC Operation Details	:	
Control Panel Anunciation	:	
Main I Relay Indications	:	GENERAL TRIP, ZONE-01 TRIP, A/R OPERATED
Main II Relay Indications	:	
Other Relay Indications	:	
PLCC Counter Increment I/T	:	0

PLCC Counter Increment D/T : 0

Fault Current Value (kAmp) : 1.64

LA Counter : 0

Remarks : 230 kV line experienced an L2-N (Y-phase to Earth) fault with maximum fault current of approximately 1.65 kA and residual current of 1.06 kA at the SPRNG terminal.

Attachments :