

Detailed Report

Date of Submission : 01-08-2026 12:56

GREENKO_PSP - 400KV tripped at **26-07-2026 19:13** and restored at **26-07-2026 19:30**

Summary of Event (घटना का सारांश) : PSP was operating in **Generator Mode** with **Units 1, 2, 3 and 5** in service carrying a total load of **834 MW**. During this period, **Unit-6 trial operation** was planned.

After initiation of the no-load operation, and immediately upon closure of the **PRDS**, a major disturbance occurred resulting in:

Trip of all generating units.

Trip of both evacuation lines.

Loss of MB-2 bus due to Bus Bar protection operation

Line-1 and Line-2 tripped on High speed over current

Remaining buses also dead due to Line-1 and Line-2 trip

Complete loss of power evacuation from the station.

Time and Date of the event (घटना का समय और दिनांक) : 26-07-2026 19:13

Name of the Substation/Generating Station/Pooling Station affected (Along with Voltage level) : GREENKO_PSP - 400KV

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

Location/Control Area (स्थान/नियंत्रण क्षेत्र) : ANDHRA PRADESH

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

Bus Configuration Type : Double main and transfer bus scheme

Bus Coupler Status : NA

Bus 1 Connected Elements	Bus 2 Connected Elements	Bus 3 Connected Elements	Bus 4 Connected Elements
1. 400KV- GREENKO_CPSS- GREENKO_PSP-2 2. 400KV/11KV GREENKO_PSP- ST-2 3. 400KV/18KV GREENKO_PSP- GT-5 4. 400KV/18KV GREENKO_PSP- GT-7 5. 400KV/18KV GREENKO_PSP- GT-8	1. 400KV/18KV GREENKO_PSP- GT-6	1. 400KV- GREENKO_CPSS- GREENKO_PSP-1 2. 400KV/11KV GREENKO_PSP- ST-1 3. 400KV/18KV GREENKO_PSP- GT-1 4. 400KV/18KV GREENKO_PSP- GT-3	1. 400KV/18KV GREENKO_PSP- GT-2 2. 400KV/18KV GREENKO_PSP- GT-4

Station Connectivity / SLD during antecedent : MB-1 Connected Elements are Line-2,SST-2,Unit-5,Unit-7,Unit-8,MB-2 Connected Elements are Unit-6 ,MB-3 Conneted Elements are Line-1, SST-1,Unit-1,Unit-3,MB-4 Connected Elements are are Unit-2, UNit-4

Weather Conditions : Normal

Elements under outage prior to the event :

Other Information (Antecedent Cnditions) : PSP was operating in Generator Mode with Units 1, 2, 3 and 5 in service carrying a total load of 834 MW. During this period, Unit-6 trial operation was planned.After initiation of the no-load operation, and immediately

upon closure of the PRDS, a major disturbance occurred

Renewable Energy Trip : False

Details of SPS Operation (if any): : False

Reason of tripping : Fault Tripping

Type of Fault : SLG

phases inv : None, None

Auto Reclosure Operation : No

Fault Clearing Time (ms) : None

Load and Generation Loss (लोड और जेनरेशन हानि) :

Total Generation Loss (MW)	Total Load Loss(MW)
834 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. 400KV-GREENKO_CPSS-GREENKO_PSP-1
2. 400KV-GREENKO_CPSS-GREENKO_PSP-2
3. 400KV/18KV GREENKO_PSP-GT-1
4. 400KV/18KV GREENKO_PSP-GT-2
5. 400KV/18KV GREENKO_PSP-GT-3
6. 400KV/18KV GREENKO_PSP-GT-5
7. GREENKO_PSP - 400KV - Bus 2

Station Connectivity/SLD during the event	:	MB-1 Connected Elements are Line-2,SST-2,Unit-5,Unit-7,Unit-8,MB-2 Connected Elements are Unit-6 ,MB-3 Conneted Elements are Line-1, SST-1,Unit-1,Unit-3,MB-4 Connected Elements are are Unit-2, Unit-4
Analysis of the event	:	PSP was operating in Generator Mode with Units 1, 2, 3 and 5 in service carrying a total load of 834 MW. During this period, Unit-6 trial operation was planned.After initiation of the no-load operation, and immediately upon closure of the PRDS, a major disturbance occurred
Protection / Operational Issues observed	:	After detailed investigation it was suspected that Unit-6 B-Phase Braeker pole may have issue.
Restoration Details	:	Line-1 Restored at 19:30 Hrs,Line-2 Restored at 19:32 Hrs,Unit-2 Restored at 19:50,Unit-3 Restored at 19:50,Unit-4 taken into service inplace of Unit-1 at 19:55
DR Time synchronization issues observed (सुरक्षा/ प्रचालन समस्या)	:	False
Remedial Measures Taken (सुधारात्मक सुझाव)	:	The issue was reffred to OEM. Detailed invstigation & testing inclduing SF6 gas purity testing of 'B' phsase pole has been done. As the contaminated gas is detected in the breaker pole, the pole has been reaplaced with spare pole. The Testing is in Progress
Relay/PLCC Operation Details	:	
Control Panel Anunciation	:	PINNA_LINE2_F111_BROKEN CONDUCTOR ALARM START, PINNA_LINE2_F111_SOTF O/C Picked Up, PINNA_LINE2_F111_High Speed / SOTF O/C Genral Trip,
Main I Relay Indications	:	GENERAL TRIP, L3 TRIP, SOTF TRIP

Main II Relay Indications : ZONE REV PICKUP Carrier Receive CH-1 and
Carrier Receive CH-2

Other Relay Indications :

PLCC Counter Increment I/T :

PLCC Counter Increment D/T :

Fault Current Value (kAmp) : None

LA Counter :

Remarks :

Attachments :