

Detailed Report

Date of Submission : 01-08-2026 14:02

GREENKO_PSP - 400KV tripped at 26-07-2026 01:46 and restored at 26-07-2026 02:45

Summary of Event (घटना का सारांश) : PSP was operating in Generator Mode with Units 1, 6, 7, and 8 in service, carrying a total generation load of 875 MW. As per the approved schedule, Unit-6 normal shutdown was initiated at 01:45:00 hrs. During the shutdown process, all running generating units subsequently tripped and the station generation was lost

Time and Date of the event (घटना का समय और दिनांक) : 26-07-2026 01:46

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

Event Category (श्रेणी के साथ इवेंट प्रकार) : GI-2

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-	1. GREENKO_PSP - 400KV - Bus	1. GREENKO_PSP - 400KV - Bus 1	1. 400KV/18KV GREENKO_PSP-

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

Station Connectivity / SLD during antecedent

: **MB-1** Connected Elements are Line-2,SST-2, Unit-5, Unit-6, Unit-7, Unit-8, BS-1BC-1

MB-2 Connected Elements are BS-2 and BC-1

MB-3 connected elements are Line-1,SST-1,Unit-1,Unit-3,BS-1,BC-2

MB-4 Connected elements are Unit-2, Unit-4,BS-2,BC-2

Weather Conditions

: Normal

Elements under outage prior to the event

:

Other Information (Antecedent Cnditions)

: PSP was operating in Generator Mode with Units 1, 6, 7, and 8 in service, carrying a total load of 875 MW.As per the approved schedule, Unit-6 normal shutdown was

initiated at 01:45:00 hrs. Subsequently, all running units, Lin-2 and SST-2 were tripped.

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)
220 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-2
2. 400KV/18KV GREENKO_PSP-GT-7
3. 400KV/18KV GREENKO_PSP-GT-8
4. 400KV/11KV GREENKO_PSP-ST-2
5. GREENKO_PSP - 400KV - Bus 1

Station Connectivity/SLD during the event :
MB-1 Connected Elements are Line-2,SST-2, Unit-5, Unit-6, Unit-7, Unit-8, BS-1BC-1
MB-2 Connected Elements are BS-2 and BC-1

MB-3 connected elements are Line-1,SST-1,Unit-1,Unit-3,BS-1,BC-2

MB-4 Connected elements are Unit-2, Unit-4,BS-2,BC-2

Analysis of the event : During Unit-6 normal Shutdown, a Zone A trip occurred in bus bar Main-2 relay B-phase , resulting in the initiation of Circuit Breaker Failure (CBF) protection for Bay 412, which subsequently led to Main Bus 1 (MB-1) becoming de-energized

Protection / Operational Issues observed :

Restoration Details : Unit-7 was Restored at 02:52 Hrs ,Unit-8 was restored at 02:45 Hrs,Line-2 was restored at 06:01,SST-2 was restored at 04:52 Hrs,Bus-1 was Charde at 04:47 Hrs

DR Time synchronization issues observed (सुरक्षा/प्रचालन समस्या) : False

Remedial Measures Taken (सुधारात्मक सुझाव) :

Relay/PLCC Operation Details :

Control Panel Anunciation : PINNA_LINE2_F111_MAIN-1 BUS BAR OPERATED, PINNA_LINE2_F211_MAIN-2 BB OPERATED, PINNA_BC-1_F112_CB Q00 OPEN, PINNA_BS-1_F113_CB Q00 OPEN

Main I Relay Indications :

Main II Relay Indications : Zone-A Trip, Zone-A LBB trip, Bay 412 trip(U6), CBF Back Trip, Bay-412 RE T, Bay 412 CBF TR T ,

Other Relay Indications :

PLCC Counter Increment I/T :

PLCC Counter Increment D/T :

Fault Current Value (kAmp) : None

LA Counter :

Remarks :

Attachments :