

Detailed Report

Date of Submission : 24-04-2026 10:58

LOWER_SILERU - 220KV tripped at **21-04-2026 22:07** and restored at **22-04-2026 22:47**

Summary of Event (घटना का सारांश) : As per APLD instructions, the 220 KV Bus Coupler breaker closed at 13.55 Hrs., and Unit-4 synchronized to the grid at 21.55 hrs. APLD instructed to the Shift operator to open the 220 KV Bus Coupler breaker. While opening the Bus-Coupler at 22.07 Hrs., the R-phase breaker limb bottom portion of porcelain broken which leads to LBB Zone-A & Zone-B operated and both the Buses (Bus-1&2) de-energized.

Time and Date of the event (घटना का समय और दिनांक) : 21-04-2026 22:07

Name of the Substation/Generating Station/Pooling Station affected (Along with Voltage level) : LOWER_SILERU - 220KV

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 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. 220KV-BOMMUR-LOWER_SILERU-1 2. 220KV-DONKARAYI-LOWER_SILERU-1	1. 220KV-ASUPAKA-LOWER_SILERU-1 2. 220KV-LOWER_SILERU-Chintur-1		

Station Connectivity / SLD during antecedent : The 220 KV LS-Bommuru and LS-Donkarayi feeders on Bus-1.

The 220 KV LS-Asupaka, LS-Chinthuru feeders and Unit-4 on Bus-2.

Bus-Coupler in closed condition

Weather Conditions : Normal

Elements under outage prior to the event :

Other Information (Antecedent Cnditions) :

Renewable Energy Trip : False

Details of SPS Operation (if any): : False

Reason of tripping : Others

Other Reason : Bus-Coupler Breaker failure protection operated

Load and Generation Loss (लोड और जेनरेशन हानि) :

Total Generation Loss (MW)	Total Load Loss(MW)
100 MW	100 MW

Duration of interruption (रुकावट की अवधि) :

Details of Equipment :
Failure (if any during the event):

Equipment Type	Equipment Make
CB	ABB , Breaker type: ELF SL4-1 (R-phase limb)

List of elements tripped during the event :
1. 220KV-ASUPAKA-LOWER_SILERU-1
2. 220KV-BOMMUR-LOWER_SILERU-1
3. 220KV-DONKARAYI-LOWER_SILERU-1
4. 220KV-LOWER_SILERU-Chintur-1
5. LOWER_SILERU - 220KV - Bus 1
6. LOWER_SILERU - 220KV - Bus 2

Station Connectivity/SLD during the event :
The 220 KV LS-Bommuru and LS-Donkarayi feeders on Bus-1.

The 220 KV LS-Asupaka, LS-Chinthuru feeders and Unit-4 on Bus-2.

Bus-Coupler in closed condition

Analysis of the event :
While opening the Bus-Coupler at 22.07 Hrs., the R-phase breaker limb bottom portion of porcelain broken and the SF6 Dielectric medium forced out which may cause flashover between the fixed and moving contact resulting LBB Group A & Gropu -B protection operated.

Protection / Operational Issues observed :

Restoration Details :
The 220 KV LS - Bommuru Feeder charged on Bus-1 at 22.47 Hrs.

The 220 KV LS - Donkarayi Feeder charged on Bus-1 at 22.48 Hrs.

The 220 KV LS - Chinthuru Feeder charged on Bus-2 at 23.08 Hrs.

The 220 KV LS - Asupaka Feeder charged on Bus-2 at 23.12 Hrs.

DR Time synchronization issues observed (सुरक्षा/प्रचालन समस्या)	:	False
Remedial Measures Taken (सुधारात्मक सुझाव)	:	Faulty R-phase breaker limb removed from the structure and awaiting for Bus LC for Limb replacement.
Relay/PLCC Operation Details	:	
Control Panel Anunciation	:	LBB OPERATED
Main I Relay Indications	:	LBB OPERATED ZONE-A & ZONE-B
Main II Relay Indications	:	NA
Other Relay Indications	:	NA
PLCC Counter Increment I/T	:	NA
PLCC Counter Increment D/T	:	NA
Fault Current Value (kAmp)	:	0.463
LA Counter	:	NA
Remarks	:	
Attachments	:	1. Others