Detailed Report

Date of Submission : 23-09-2026 14:53

RAMAVARAM - 220KV tripped at ***10-09-2026 11:28*** and restored at ***10-09-2026 11:38***

Summary of Event (घटना का सारांश)	:	During the incident, 220kV SS, Bommuru was feeding 220kV Rampachodavaram, 220kV Bavojipeta, 220kV Vepakayaladibba radially. 220kV SS, Ramavaram was connected 220kV grid through 220kV Bavojipeta line-1&2 and to 132kV Grid through 132kV Peddapuram-1&2 lines respectively. For B-N fault in 132kV Ramavaram-Peddapuram line-1, due to non opening of CB at Ramavaram end, fault was cleared by tripping of both 132kV lines at Peddapuram end and also by tripping of 220kV Bavojipeta feeder at Bommuru end. Hence, incoming supply failure occurred to these Sub-stations.
Time and Date of the event (घटना का समय और दिनांक)	:	10-09-2026 11:28
Name of the Substation/Generating Station/Pooling Station affected (Along with Voltage level) :	:	RAMAVARAM - 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

Station Connectivity / SLD during antecedent	:	
Weather Conditions	:	Cloudy
Elements under outage prior to the event	:	
Other Information (Antecedent Cnditions)	:	NIL
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)
0 MW	128.6 MW

Duration of interruption (रुकावट की अवधि) :

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

Equipment Type	Equipment Make

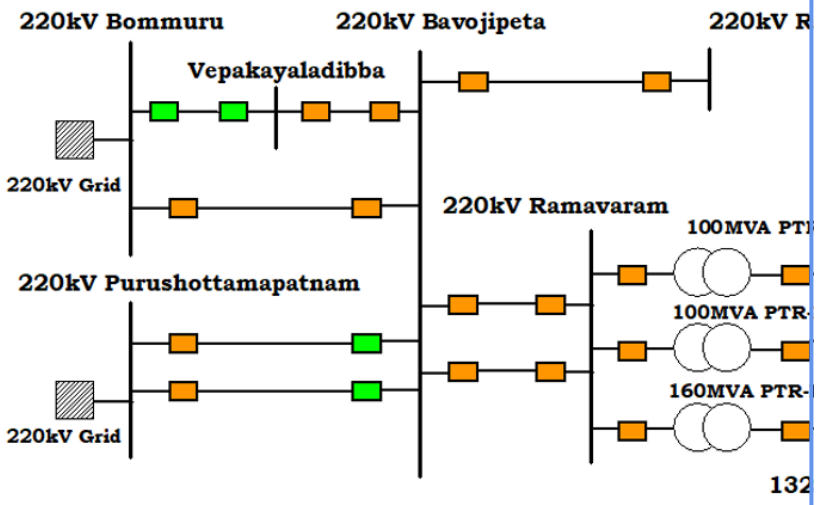
List of elements tripped during the event : 1.

Station Connectivity/SLD during the event :

Analysis of the event :

ANALYSIS OF COMPLETE EVENT

Connectivity Details:



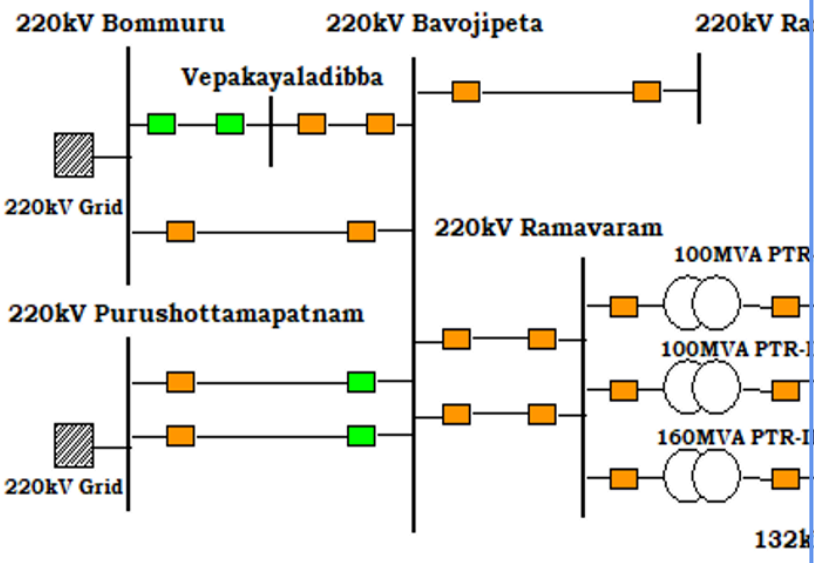
Antecedent conditions:

220kV Bavojipeta- Purushottamapatnam line-1&2 were not in service from 09/09/26 as per the instructions of APSLDC. 220kV Bommuru-Vepakayaladibba SS kept open at both the ends due problem in UG cable.

Triggering incident:

At 11:28:08:957 Hrs, High resistance fault started in B-Ph of 132kV Ramavaram- Peddapuram line-1 (Later, on patrolling of line, it was found that, a palm oil dry leaf fallen and came into induction zone of bottom conductor between Loc. 7-8).

Location of fault:



Operation of protections:

		1) For the above fault, following protections were operated/started at the substations mentioned as below. At 132kV SS,Peddapuram: On 132kV Ramavaram line-1,Zone-2 protection operated and tripped the CB. At 220kV SS, Ramavaram: On 132kV Peddapuram line-1,Zone-2 protection operated at Ramavaram end, but the CB was not opened due to problem in mechanism. On 220/132kV PTRs,Over current and EF protections were started to clear the downstream fault and these protections will take more time to clear the fault on 132kV feeders as their OC and EF settings adopted duly considering the fault contribution of 220kV Purushottamapatnam SS. During the incident, Purushottamapatnam line-1&2 were kept in open position. At 220kV SS, Bavojipeta: On 220kV Ramavaram-1&2 feeders,DEF started at Bavojipeta end and continued as the fault was not cleared from Ramavaram end. DEF protection may take more take more time as the fault current is low and DEF protection was set to coordinate with Zone-4. At 220kV SS,Bommuru: Zone-4 protection started at Bommuru SS and continued as the fault was not cleared from Ramavaram end. 2) **After 905mS**, EF protection operated at Peddapuram end on 132kV Ramavaram line-2 and the CB was tripped .Hence fault was cleared from Peddapuram end. 3) **After 1.2 Sec**, Zone-4 protection operated at 220kV Bommuru SS on Bavojipeta feeder. This incident resulted in loss of incoming supply to 220kV Rampachodavaram, 220kV Vepakayaladibba, 220kV Bavojipeta, 220kV Ramavaram SS. Total load loss observed to be 160MW in the above incident.
Protection / Operational Issues observed	:	
Restoration Details	:	220kV Ramavaram-Purushottamapatnam-1&2 were taken into service at 11:37 Hrs and 11:38 Hrs respectively on the same day.220kV Bommuru-Bavojipeta feeder charged at 11:51 Hrs on the same day.
DR Time synchronization issues observed (सुरक्षा/ प्रचालन समस्या)	:	True
Remedial Measures Taken (सुधारात्मक सुझाव)	:	At Ramavaram end, CGL make CB of 132kV Peddapuram line-1 mechanism problem informed to service agency and the same will be attended soon.
Relay/PLCC Operation Details	:	
Control Panel Anunciation	:	At Bommuru end: Zone-4 trip operated on 220kV Bavojipeta feeder, At Ramavaram end: Zone-2 trip operated on 132kV Peddapuram-1 feeder, At Peddapuram end : Zone-2 trip operated on 132kV Ramavaram-1 feeder and EF protection operated on Ramavaram-2 feeder
Main I Relay Indications	:	
Main II Relay Indications	:	
Other Relay Indications	:	
PLCC Counter Increment I/T	:	
PLCC Counter Increment D/T	:	
Fault Current Value (kAmp)	:	None
LA Counter	:	

Remarks	:
Attachments	: