

Detailed Report

Date of Submission : 08-04-2026 12:48

ARNI - 230KV tripped at 05-04-2026 23:39 and restored at 06-04-2026 00:19

Summary of Event (घटना का सारांश) : For a fault in 110kV side, 230kV source feeders tripped at remote end with zone.3 indication Hence source failure at 230kV side.

Since all 110kV feeders were radially fed from Arani 230kV SS hence 110kV side also source failure.

Time and Date of the event (घटना का समय और दिनांक) : 05-04-2026 23:39

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

Bus Coupler Status : NA

Bus 1 Connected Elements	Bus 2 Connected Elements	Bus 3 Connected Elements	Bus 4 Connected Elements
1. 230KV-ARNI-BHAVANI-1			

Bus 1 Connected Elements	Bus 2 Connected Elements	Bus 3 Connected Elements	Bus 4 Connected Elements
2. 230KV-ARNI-BHAVANI-2 3. 230KV-ARNI-ECHUR-1 4. 230KV-ARNI-KANCHIPURAM-2 5. 230KV-ARNI-SINGARPET			

Station Connectivity / SLD :

during antecedent

Weather Conditions : Normal

Elements under outage :

prior to the event

Other Information : All 230kV Breakers are holding at Arani

(Antecedent Cnditions) 230kV SS

Renewable Energy Trip : False

Details of SPS Operation : False

(if any):

Reason of tripping : Others

Other Reason : 110kV Capacitor Bank Bus PT failed in Y-Phase and caused damages to adjacent R & B phase PTs along with damages to strung Bus R & Y phases. Since 110kV Busbar protection scheme is not available all the 230kV feeders are tripped from remote end with zone-3 time

Load and Generation Loss :

(लोड और जेनरेशन हानि)

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

Duration of interruption :
(रुकावट की अवधि)

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

Equipment Type	Equipment Make
PT	Name Plate not visible

List of elements tripped during the event :
1. 230KV-ARNI-BHAVANI-1
2. 230KV-ARNI-BHAVANI-2
3. 230KV-ARNI-KANCHIPURAM-2
4. 230KV-ARNI-SINGARPET
5. 230KV-ARNI-ECHUR-1

Station Connectivity/SLD during the event :

Analysis of the event :
1. Y-Phase PT of 110kV Capacitor Bank Bus PT was failed which causes all the 230kV Feeders tripping at respective remote ends with Zone-3 timing.
2. All 230kV & 110kV Breakers were found holding & hand tripped by the duty operator at Arani SS.
3. The faulty 110kV Bus section was isolated.
4. 230kV Feeders and Transformer HV & LV Breakers and 110kV Feeders are charged one by one and supply normalised to all the feeders.

Protection / Operational Issues observed : 110kV Busbar protection has to be ensured

Restoration Details :
230kV Kancheepuram:06-04-2026 at 00:19hrs
230kV Singarapet:06-04-2026 at 00:27hrs
230kV Echur : 06-04-2026 at 00:40 hrs
230kV Bhavini.1 :06-04-2026 at 01:33hrs

DR Time synchronization issues observed (सुरक्षा/प्रचालन समस्या)	:	False
Remedial Measures Taken (सुधारात्मक सुझाव)	:	Faulty bus section isolated
Relay/PLCC Operation Details	:	
Control Panel Anunciation	:	Bus PT Fail (intended for Capacitor bank)
Main I Relay Indications	:	Nil
Main II Relay Indications	:	Nil
Other Relay Indications	:	Nil
PLCC Counter Increment I/T	:	
PLCC Counter Increment D/T	:	
Fault Current Value (kAmp)	:	None
LA Counter	:	
Remarks	:	
Attachments	:	