Detailed Report

Date of Submission : 10-09-2026 11:02

NCTPS - 230KV tripped at ***07-09-2026 23:32*** and restored at ***08-09-2026 00:00***

Summary of Event (घटना का सारांश)	:	Before the tripping event, the system was in a normal operating condition. The total generation was 430 MW and the total system load was 430 MW, maintaining power balance. Weather conditions were abnormal heavy rainy and windy Tondiarpet Feeders 1 and 2 were under Line Clearance (LC) condition. Gummudipoondi Feeder and Sriperumbudur Feeder were operating as grid feeders, while Kilpauk Feeder, NCTPS Stage-III Feeder, and Athipattu Feeders 1 and 2 were operating as radial feeders. the three unit are in service and generating total genertion is 430 MW No other abnormal system conditions were observed prior to the disturbance.
Time and Date of the event (घटना का समय और दिनांक)	:	07-09-2026 23:32
Name of the Substation/Generating Station/Pooling Station affected (Along with Voltage level) :	:	NCTPS - 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 : Single Main and Transfer Bus

Bus Coupler Status : NA

Bus 1 Connected Elements	**Bus 2 Connected Elements**	**Bus 3 Connected Elements**	**Bus 4 Connected Elements**
1. 230KV-NCTPS-NCTPS STG3-1 2. 230KV-NCTPS-KILPAUK-1	1. 230KV-NCTPS-SRIPERUMBADUR_TN-1 2. 230KV-NCTPS-TONDIARPET-1	1. 230KV-NCTPS-TONDIARPET-2 2. 230KV-GUMMIDIPOONDI-NCTPS-1 3. 230KV-NCTPS-ATHIPATU-1 4. 230KV-NCTPS-ATHIPATU-2	

Station Connectivity / SLD during antecedent : Before the tripping event, the system was in a normal operating condition. The total generation was430 MW and the total system load was 430 MW, maintaining power balance. Weather conditions were abnormal,heavy rainy and windy Tondiarpet Feeders 1 and 2 were under Line Clearance (LC) condition. Gummudipoondi Feeder and Sriperumbudur Feeder were operating as grid feeders, while Kilpauk Feeder, NCTPS Stage-III Feeder, and Athipattu Feeders 1 and 2 were operating as radial feeders. the three unit are in service and generating total genertion is 430 MW No other abnormal system conditions were observed prior to the disturbance.

Weather Conditions : Rainy, Windy

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	:	Fault Tripping
Type of Fault	:	SLG
phases inv	:	
Auto Reclosure Operation	:	Disabled
Fault Clearing Time (ms)	:	None
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**

List of elements tripped during the event :

1. 230KV-NCTPS-NCTPS STG3-1
2. 230KV-GUMMIDIPOONDI-NCTPS-1
3. 230KV-NCTPS-ATHIPATU-2
4. 230KV-NCTPS-KILPAUK-1
5. 230KV-NCTPS-SRIPERUMBADUR_TN-1

Station Connectivity/SLD during the event :

Analysis of the event : There are eight Nos of outgoing feeders in Nctps-1 .The Grid feeders are Gummdipoondi
and Sriperumbudur feeder Remaining Feeder

are in Radial(Kilpauk,Nctps stage-3,Athipatu -1&2) and Tondiarpet 1 &2 feeder are under L.C
During this period a line to ground fault occured on the 230 KV gummdipondi feeder at
Nctps end.passing fault.Relay Indication are MICOM P442 Started phase AN,Tripped ph :ABC ,Zone-1,IA-10.99KA,Van-15.73KV 637.3meter
Main II Relay Indications : GE D60 Started ph:AG,tRIPPED PH:ABC,ZONE-1 ,0KM,IA-11.14KA,VAN-15.73KV started AN ,Tripped ABC Zone 1 IA 12.98KA ,Trip on 07.09.2026 at 23.31 hrs and normalised on 08.09.2026 at 00.22 hrs

During this period a line to ground fault occured on the 230 KV Sriperumbudur feeder at Sriperumbudur end .The fault occured due to Y phase take off tower line open at sriperumbudur end The Relay Indications are MICOM P442 Started ph BN,Tripped ph :ABC,Zone-2 aided IB-2.157KA,VBN:90.43KV ,62.89 KM Main II Relay Indications:GE D60 Started ph:BG,Tripped phase ABC,PUTT OPTD TRIP on07.09.2026 at 23.32 Hrs and Normalised on

08.09.2026 at18.01 hrs

During this Period a line to ground fault occured on the 230 KV Kilpauk feeder at Nctps end
Passing Fault Main I Relay Indications : GE D60 Started ph :CG,TRIPPED PH:ABC ,ZONE-1 ,IC-9.521KA,VCN:45.788KV ,6.8 KM
Main II Relay Indications : MICOM P442 Started ph CN,Tripped ph ABC,Zone-1 ,IC-9.599KA,VCN-46.54KV,6.86 KM
TRIP on07.09.2026 at 23.23 Hrs and Normalised on 08.09.2026 at 00.00 hrs

During this Period a line to ground fault occured on the 230 KV Athipattu II feeder at Nctps end
Passing Fault Main I Relay Indications : MICOM P442 started ph:AN, Tripped ph:ABC, Zone-1, 0 meter, Ia:2.497kA,Van:2.253kV.
Main II Relay Indications : ZIV Started

ph:AN,Tripped ph:ABC,ZONE 1 TRIP on07.09.2026 at 23.40 Hrs and Normalised on 08.09.2026 at 02.11 hrs

During this Period a line to ground fault occured on the 230 KV NCTPS Stage III feeder at Nctps end Passing Fault Main I Relay Indications : MICOM P543 started ph:AN, Tripped ph:ABC, Zone-1, 1.187Km, Ia:13.85kA,Van:12.68kV. Main II Relay Indications : GE L90 Started ph:AG,Tripped ph:ABC,ZONE 1 1.1Km, Ia:13.265kA, Van: 12.361kV

TRIP on07.09.2026 at 23.20 Hrs and Normalised on 08.09.2026 at 17.02 hrs

Remaining feeders are in Under Line Clear(L.C)
(Tondiarpet-I and Tondiarpet-II feeder)
Unit 1 Trip due to Turbine Trip on 07.09.2026@23.33 hrs and Synchronized on 08.09.2026@16.46hrs
Unit 2 Trip due to Turbine Trip on 07.09.2026@23.45hrs and Synchronized on 08.09.2026@20.23hrs
Unit 3 Trip due to Over Frequency Trip on 07.09.2026@23.45hrs

		and Synchronized on 08.09.2026@ 14.50hrs
Protection / Operational Issues observed	:	NO ISSUES
Restoration Details	:	230kV NCTPS - Kilpauk feeder Normalized on 08.09.2026 at 00.00Hrs 230kV NCTPS - Gummidipoondi feeder Normalized on 08.09.2026 at 00.22Hrs 230kV NCTPS - Athipattu II feeder Normalized on 08.09.2026 at 02.11Hrs Unit III Synchronized on 08.09.2026 at 14.50Hrs Unit I Synchronized on 08.09.2026 at 16.46Hrs 230kV NCTPS - NCTPS Stage III feeder Normalized on 08.09.2026 at 17.02Hrs 230kV NCTPS - Sriperumbudur feeder Normalized on 08.09.2026 at 18.01Hrs Unit II Synchronized on 08.09.2026 at 20.23Hrs
DR Time synchronization issues observed (सुरक्षा/ प्रचालन समस्या)	:	False
Remedial Measures Taken (सुधारात्मक सुझाव)	:	The above mentioned fault trip feeders line fault was attended
Relay/PLCC Operation Details	:	
Control Panel Anunciation	:	DISTANCE PROTECTION OPERATED
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	:	The line fault was attended and rectified
Attachments	:	