

Detailed Report

Date of Submission : 12-05-2026 14:18

JSW_Vilathikulam - 230KV tripped at **11-05-2026 09:00** and restored at **11-05-2026 10:41**

Summary of Event (घटना का सारांश) :

Dear Sir/Madam,

The 230 kV transmission line tripped due to a detected Y-B phase-to-earth fault. This resulted in the operation of distance protection and earth fault protection, along with direct transfer trip logic from the remote end. The fault was caused by the failure of 33kV bus supporting insulators in the Y and B phases with respect to ground at the LV bus side of the 150 MVA, 230/33 kV power transformer at the wind power pooling substation side.

Time and Date of the event (घटना का समय और दिनांक) :

11-05-2026 09:00

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

JSW_Vilathikulam - 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 : 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. 230KV-TTGS-JSW_Vilathikulam_300MW-1			

Station Connectivity / SLD during antecedent :

Weather Conditions : Cloudy

Elements under outage prior to the event : 1. 230KV-TTGS-JSW_Vilathikulam_300MW-1

Other Information (Antecedent Cnditions) : Dear Sir/Madam,

The 230 kV transmission line tripped due to a detected Y-B phase-to-earth fault. This resulted in the operation of distance protection and earth fault protection, along with direct transfer trip logic from the remote end. The fault was caused by the failure of insulators in the Y and B phases with respect to ground at the LV bus side of the 150 MVA, 230/33 kV power transformer at the wind power pooling substation side.

Renewable Energy Trip : False

Details of SPS Operation (if any): : False

Reason of tripping : Fault Tripping

Type of Fault : LLG

phases inv :

Auto Reclosure Operation : No

Fault Clearing Time (ms) : 0.297

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
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List of elements tripped during the event : 1. 230KV-TTGS-JSW_Vilathikulam_300MW-1

Station Connectivity/SLD during the event :

Analysis of the event : Dear Sir/Madam,

The 230 kV transmission line tripped due to a detected Y-B phase-to-earth fault. This resulted in the operation of distance protection and earth fault protection, along with direct transfer trip logic from the remote end. The fault was caused by the failure of insulators in the Y and B phases with respect to ground at the LV bus side of the 150 MVA, 230/33 kV power transformer at the wind power pooling substation side.

Protection / Operational Issues observed :

Restoration Details :

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

Remedial Measures Taken (सुधारात्मक सुझाव)	:	The fault zone was isolated from the circuit at the 230/33kV power transformer from the pooling substation end.
Relay/PLCC Operation Details	:	
Control Panel Anunciation	:	1. RED670 (M1): LBB with A/R block operated with trip indication. 2. P546 (M2): LED glow indication of OV/UV. 3. REC670: LED glow indication of BB protection operated without trip indication.
Main I Relay Indications	:	RED670 (M1): LBB with A/R block operated with trip indication.
Main II Relay Indications	:	P546 (M2): LED glow indication of OV/UV.
Other Relay Indications	:	REC670: LED glow indication of BB protection operated without trip indication.
PLCC Counter Increment I/T	:	
PLCC Counter Increment D/T	:	
Fault Current Value (kAmp)	:	2.3
LA Counter	:	
Remarks	:	Nil.
Attachments	:	