

C.E. (System Control Centre),

**REPORT ON SYSTEM DISTURBANCE / PLANT FAILURE**

Power Station: **Kotmale Power Station** Date: 16/10/2018 Time: 13:07 hrs

**Failure at a Glance:** At 13:07 hrs. Unit 03 – Generator was tripped. It was observed “220V DC total alarm” at control room of Kotmale Power Station.

**Pre-fault condition:**

Generators:

Readings at 13:07 hrs (before Trip)

| Unit No. | MW   | MVar | Voltage /kV | AVR on/off | Governor  | Remarks |
|----------|------|------|-------------|------------|-----------|---------|
| 01       | 0    | 0    | 0           | N/A        | N/A       |         |
| 02       | 25.3 | 31.8 | 13.8        | ON         | Auto, ep2 |         |
| 03       | 26   | 31.4 | 14.0        | ON         | Auto, ep2 |         |

Transmission Lines:

Readings at 13.07 hrs (Readings from SCADA)

| Transmission Line | MW    | MVar  | kV    | A   |
|-------------------|-------|-------|-------|-----|
| Anu 01            | 38.4  | 19.4  | 218.0 | 120 |
| Anu 02            | 38.6  | 19.4  | 218.9 | 119 |
| Vic 01            | 50.1  | 19.4  | 219.2 | 145 |
| Vic 02            | 49.4  | 18.3  | 218.4 | 144 |
| UK 01             | -73.0 | -19.9 | 220.3 | 185 |
| UK 02             | -73.7 | -18.6 | 219.7 | 188 |
| Biy 01            | 189.1 | 90.2  | 218.5 | 545 |
| Biy 02            | 186.6 | 93.8  | 218.2 | 553 |

(b). Nature of failure:

| Equipment        | Auto/M an trip | Time of tripping | Indications & Alarms / Remarks                                                                                                                                                                                                                                                                                                               |
|------------------|----------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unit 3-Generator | Auto           | 13.07            | At Control Room<br>White Indications <ul style="list-style-type: none"><li>• 220V DC total alarm</li><li>• 610,630 trip circuit faulty</li><li>• 220kV Bus bar Prot. Device light fault</li></ul> At Power House<br>Red indications <ul style="list-style-type: none"><li>• Inlet valve closing trip</li><li>• Emergency shut down</li></ul> |

### 3. Restoration

| Equipment         | Restored time |
|-------------------|---------------|
| Unit 03 Generator | 13.08         |

### 4. Brief description of incident by officer in charge [OEE] at that time:

At 13.07 Hrs, Unit 3 was tripped. At this time Unit 2 was running and the operation was not interrupted. Auxilary AC power was taken from Unit 2. 220V DC power supply was switched to "New" from "Normal" at +ZAA.6 charger.

This was informed to System control, CE-Kot and EE-M.

During the inspection it was found that initially "220V DC total alarm" was triggered.

At 13:08 Hrs, Generator 3 was restored.

Eng. D.M.U.J. DASSANAYAKE  
Electrical Engineer (Operations)  
Kotmale Power Station

*UJD*  
16/10/2018

### 5. Remedial actions taken to avoid reoccurrence of such failure / [EE (C&I/ EEM)'s note]:

Root cause under investigation

*U.S.D.*  
16/10/2018.  
Eng. U.S. DUNUKEDENIYA  
EE(M) - KOTMALE PS

### 6. Remarks

Further study & observe this fault



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Officer In-Charge of the Power Station  
Eng. U.R.S.S. SENADHIRATHNE

CHIEF ENGINEER

KOTMALE POWER STATION  
Copy: DGM (MC) - I. P.

Date: 19.10.2018