



# Power System Operation Corporation Limited

## Western regional Load Despatch Centre

### FLASH REPORT

**Incident:** 220 KV Bus fault on 220 kV Bus 1 of Padghe (MSEB ) sub-station due to 220 kV side Y-Phase CT burst of 400/220 ICT-IV ( 600 MVA )

**1. Date and Time:** 01.10.2014 10:23 HRS

#### **2. Antecedent Conditions:**

##### **I. Frequency of Indian Grid**

Event	Frequency	Time(hh:mm)
Pre incident	49.88	10:20
Post Incident	50.04	10.25

##### **II. Demand Met prior to event at 10:20 Hrs**

Sl.No	Area/Region	Demand Met(MW)
1	WR	42076
2	Gujarat	12663
3	Maharashtra	17328
4	Madhya Pradesh	7463
5	Chhattisgarh	2967
6	Goa	407
7	DD	252
8	DNH	644

##### **III. Major Lines/ICT/Units Affected during occurrence**

Sl. Nos.	Lines	Outage time	Restoration Time	Reason
1	400 kV BOISOR - PADGHE	10:23	11:17	DT Received @ Boisor
2	TAPS Unit-3	10:23	10:55	Tripped on low voltage
3	400/220 kV ICT – I AT PADGHE	10:30	10:48	On over loading
4	400/220 kV ICT – II AT PADGHE	10:30	10:53	On over loading
5	400/220 kV ICT – III AT PADGHE	10:23	10:49	220 KV BUS-1 FAULT
6	400/220 kV ICT – IV AT PADGHE	10:23	Out	Y-Phase CT Busrt
7	220 kV BUS – I AT PADGHE	10:23	10:54	Y-Phase CT BURST

Following 220 kV Lines from Padghe tripped: 220 kV Padghe-Nalasopara, 220 kV Padghe-Temghar 1 & 2, 220 kV Padghe-Jambhul, 220 kV Padghe-Jindal, 220 kV Padghe-Kamba.

### 3. Areas Affected By Disturbance:

Around 800 MW Load affected in Padghe area. 500 MW TAPS Unit-3 tripped at the same time on low voltage, which was generating around 540 MW.

### 4. Actions Taken:

Maharashtra regulated the loads around Parli area. 765 kV Bus Reactors at Aurangabad (PG), Wardha, Solapur (PG) were taken out to improve the voltages in Maharashtra system.

### 5. Current Status:

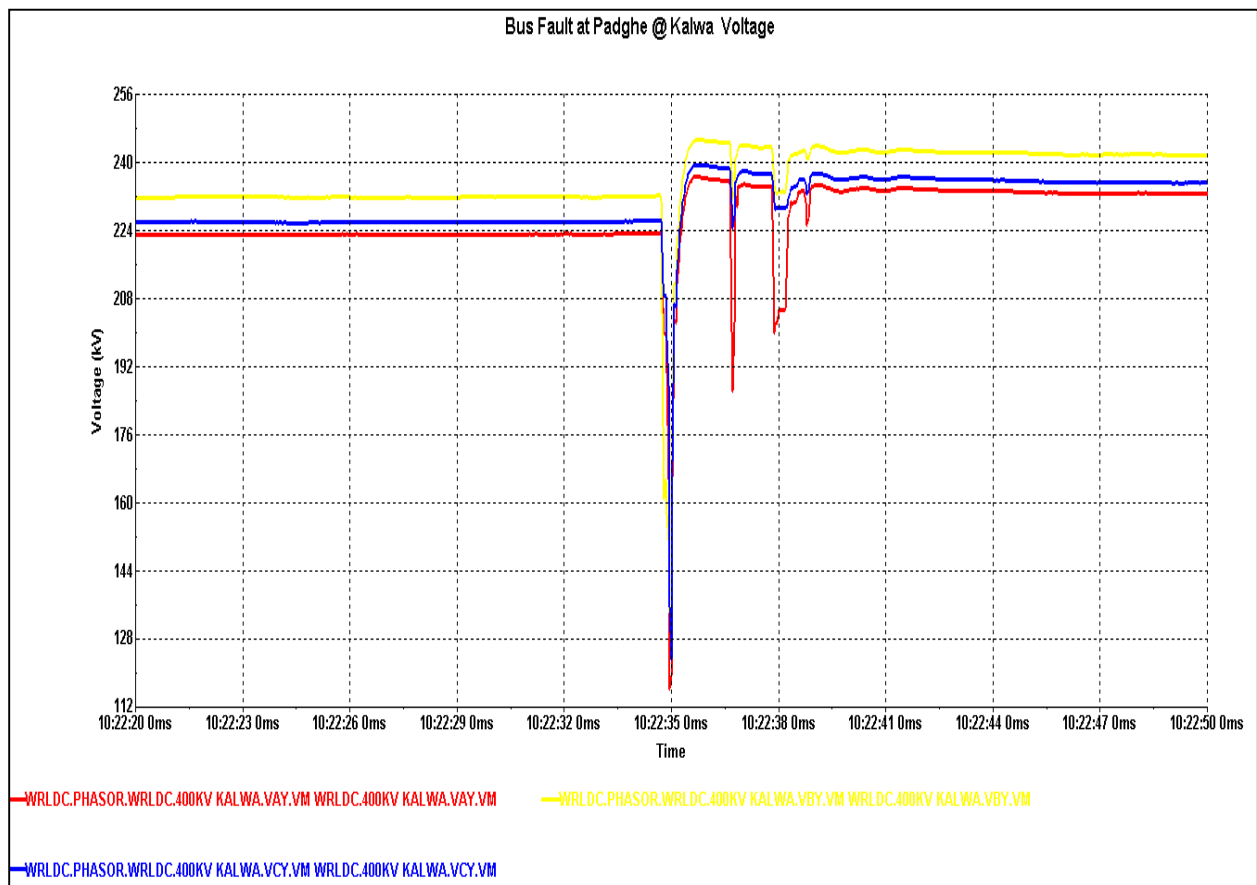
400/220 kV ICT 1, 2 and 3 at Padghe (MSEB) and 400 KV Boisor – Padghe line were restored by 11:17 hrs. Detailed report will be followed

### 6. PMU plots and Observation:

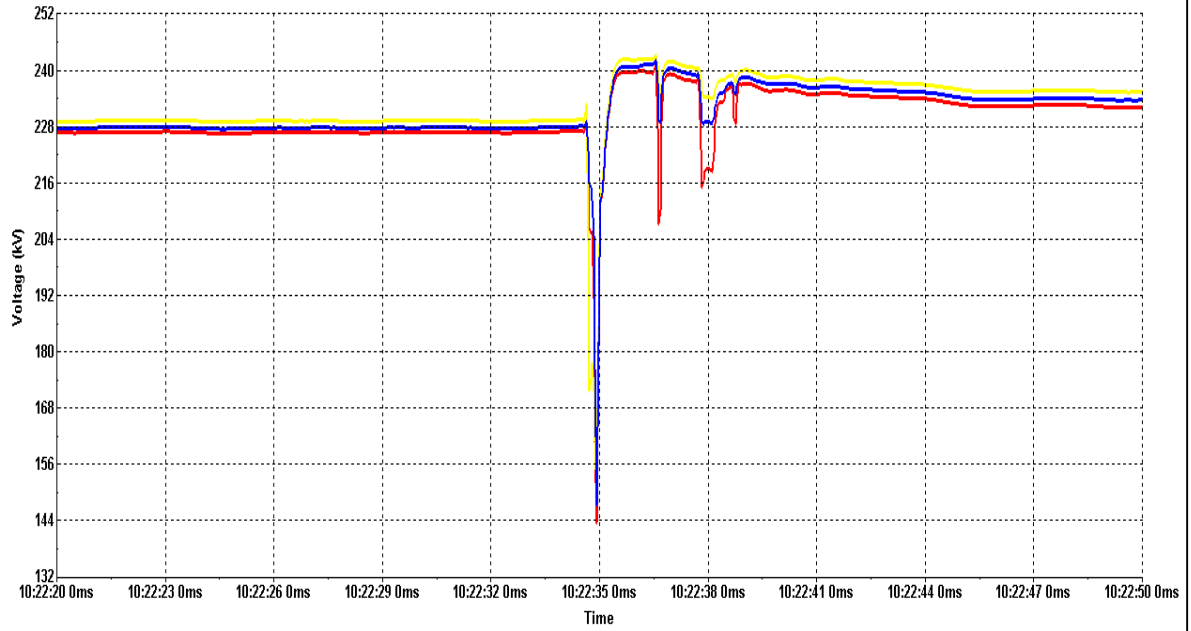
**Frequency change:** frequency rose from 49.86 Hz to 50.02 Hz i.e. a rise of 0.16 Hz due to load loss.

**Observation:** Bus fault occurred due to Y phase CT Blast at 220 kV Bus 1 at Padghe, which later has converted to three-phase fault. Multiple faults seem to occur due to spilling of oil and carbon content.

***Need to be confirmed from the site.***



Bus Fault at Padghe @ Boisar Voltage

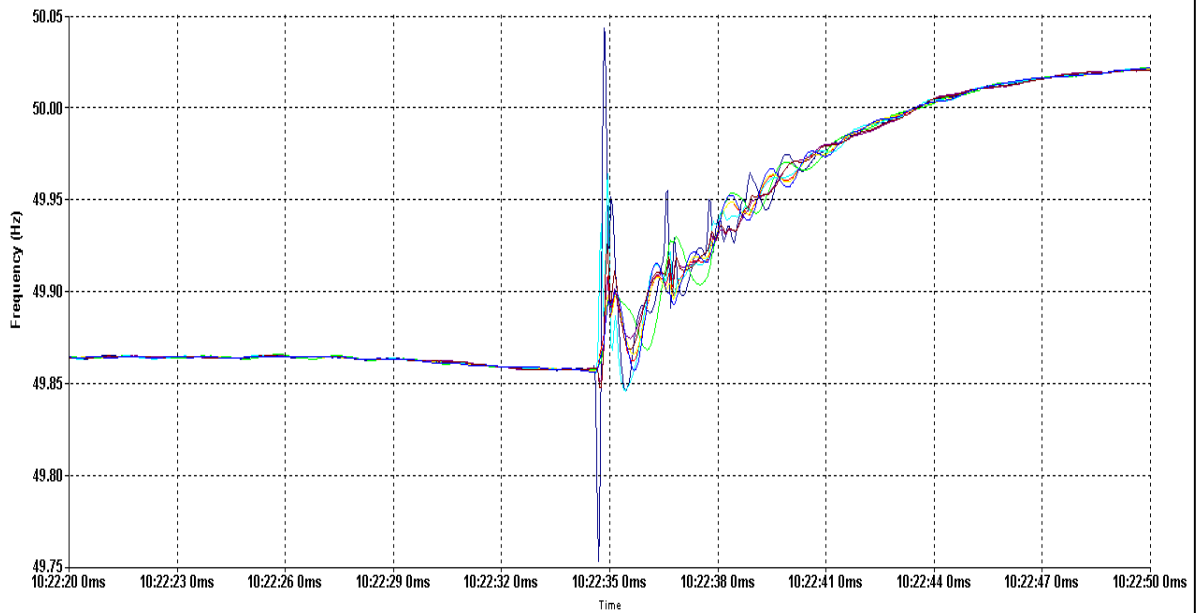


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Frequency



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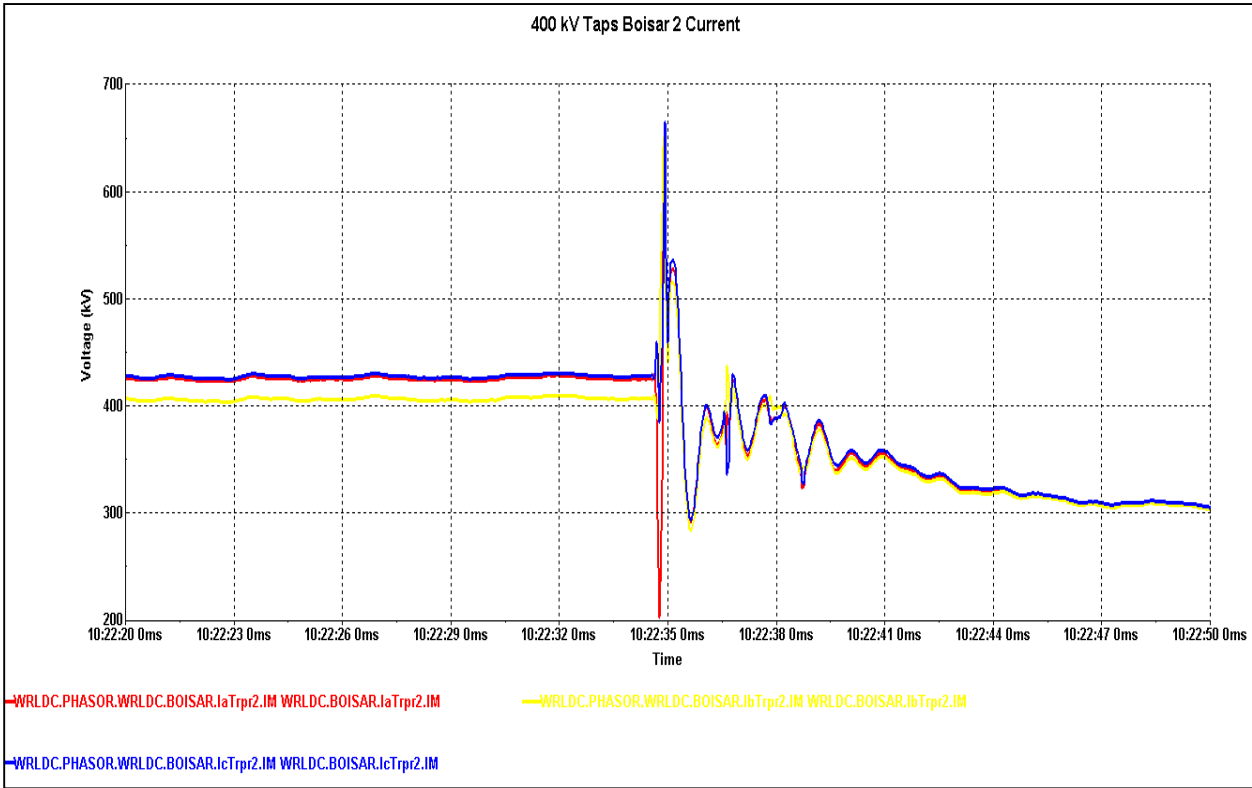
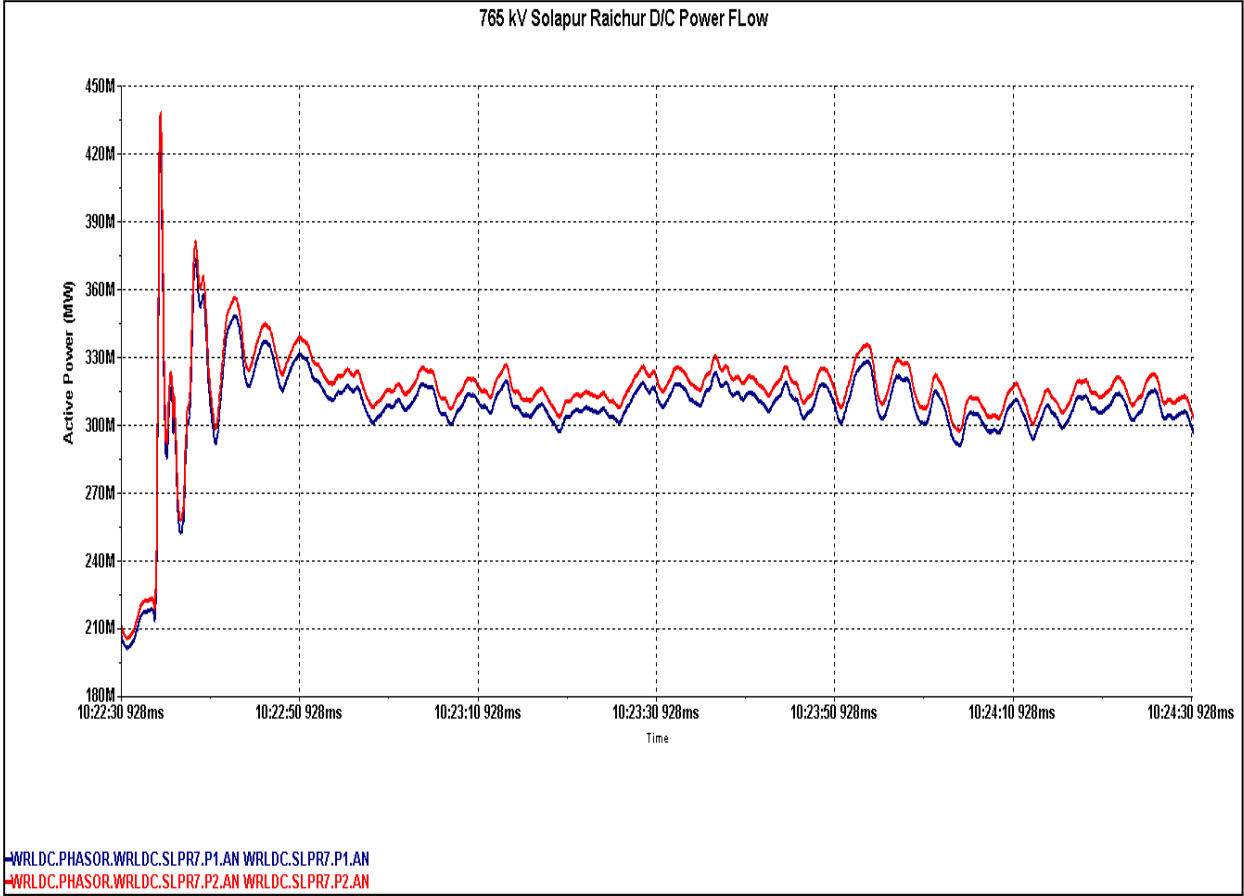
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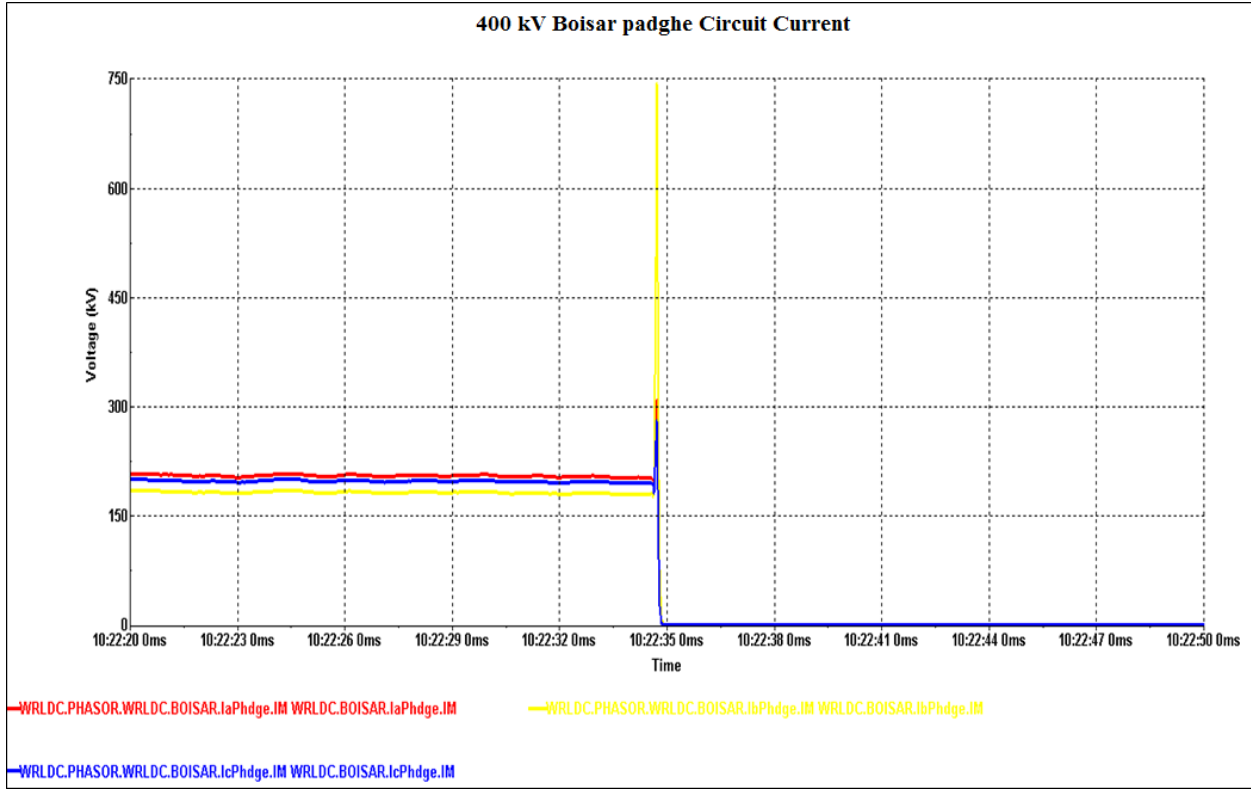
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(Shift Charge Manager)