



# Power System Operation Corporation Limited

## Western regional Load Dispatch Centre

### FLASH REPORT

WRLDC/July-2017/GD1/21-07-2017

Incident : At 21:26 on 21-07-2017 the following lines and units tripped .

- 1) 400 kV Korba-Bhatapara S/C
- 2) 400 kV Korba-Raipur-4
- 3) 400 kV Korba-Sipat S/C
- 4) 400 kV Korba-Vindychal-II
- 5) 400 kV Korba-Birsinghpur I &II
- 6) Unt-5 & Unit-6 KSTPS

Due to above trippings generation loss of around 1000 MW occurred.

1. Date and Time: 21/07/17 21:26 Hrs

2. Antecedent Conditions

1. Frequency:

Event	Frequency(Hz)	Time(hh:mm:ss)
Pre incident	49.98	21:26:13
Post Incident	49.87	21.26.30

2. Reason for Tripping:

Korba NTPC Bus-III was under outage along with Korba-Raipur-III since 13:37hrs to attend hot spots of Isolator of Raipur-III. After completion of works KSTPS bus-III was normalized at 20:32hrs through Bus-1 and feeders from Bus-4 are being shifted thereafter one by one. While transferring 400/33kV tie transformer-II bus bar protection operated on both buses III & IV and all feeders connected tripped. However Korba-Raipur-III remained out prior to the above tripping incident as when Korba-Raipur-III charged at Raipur at 21:23hrs line tripped on over voltage at open end and DT received at Raipur end.

**KorbaNTPC-Sipat S/C tripped at Sipat end on R-phase fault at Sipat end. Remaining lines tripped at remote end also on D/T receipt.**

**3. Areas Affected By Disturbance: Nil.**

**4. Elements affected:**

Feeder/ICT/Units	Tripping time (hh:mm)	Restoration time(hh:mm)	Remarks
400 kV Korba-Bhatapara S/C	21:26	01:05/22-07-2017	
400 kV Korba-Raipur-4	21:26	03:03/22-07-2017	
400 kV Korba-Sipat S/C	21:26	02:48/22-07-2017	Tripped at Sipat end on R-phase fault,65.7km, 5.4 KA
400 kV Korba-Vindychal-II	21:26	01:28/22-07-2017	
400 kV Korba-Birsinghpur I	21:26	02:43/22-07-2017	
400 kV Korba-Birsinghpur II	21:26	02:55/22-07-2017	
Unt-5 at Korba STPS	21:26	Still out	Ash evacuation system choked; would be lighted up after rectification of problem.
Unt-6 at Korba STPS	21:26	Still Out	21:26 Lighted up at 01:10hrs/22-07-2017; expected by 06:00hrs/22-07-2017.
Korba NTPC Bus-III	21:26	01:06/22-07-2017	
Korba NTPC Bus-IV	21:26	01:06/22-07-2017	

**Korba-Raipur-III restored at 02:25hrs/22-07-2017.**

**5. Load Affected: No load loss occurred however generation loss of around 1000 MW reported due to tripping of 2 Nos units at KSTPS as indicated above.**

**6. Actions Taken:**

Flow on Korba NTPC-Korba(W) rose to about 680MW. Chhattisgarh was requested to increase generation at Korba (West).

NLDC was requested to impose RRAS UP.

Suo-Moto URS allotted to Goa in view of over drawal ( Goa's entitlement reduced by about 110MW).

Yard inspection done by NTPC and found problem in VAJ-C relay on bus-3.

**7. Current Status:**

Korba NTPC bus-III charged through Bhatapara line at 01:06hrs/22-07-2017.

Thereafter feeders are restored one after one except Tie transformer-2.

Units-5 &6 are yet to be restored.

**8. Further action required:**

a. Details of tripping along with Relays/DR/EL to be furnished by NTPC,MP and WR-1, POWERGRID.

b. Reason of bus bar protection operation on both buses -3 &4 while transferring tie transformer-2 to be investigated.

c. Reason for long restoration time to be explained by NTPC.

d. Details of problem in VAJ-C relay on BUS-3 to be furnished.

K Muralikrishna

**(Shift Charge Manager)**