



Power System Operation Corporation Limited

Western regional Load Dispatch Centre

FLASH REPORT

WRLDC/January-2017/GD1/27-01-2017

Incident: Tripping of 400kV Bus-1 at Rajgarh and Nagda feeders

1. Date and Time: 27/01/2017 05:56hrs

2. Antecedent Conditions

1. Frequency of NEW Grid/SR Grid

Event	Frequency(Hz)	Time(hh:mm:ss)
Pre incident	50.26	05::14
Post Incident	50.29	18:04:14

2. Reason for Tripping: As for information received 400kV Nagda-Rajgarh-1 tripped on B-PHASE to Y-PHASE fault at 05:56hrs (104kms from Rajgarh, 44.66kms from Nagda) at both ends. But at Rajgarh momentarily Breaker L/O appeared and Main protection of Bus bar operated as intimated, which resulted in tripping of Bus-1 at Rajgarh.

At the same time Kasor-Rajgarh-2 tripped at Kasor end only (holding through Tie bay and Bus-2 at Rajgarh) on master trip relay operation.

400kV Kasor-rajgarh-1 was in open condition prior to the event on high voltage and code was issued to charge Kasor-Rajgarh-1. Rajgarh S/S was in the process of line charging, meanwhile the event of Rajgarh Bus-1 tripping occurred.

After 3 minutes, Nagda-Rajgarh-II also tripped on Y-phase fault(49kms from Rajgarh, 38.37kms from Nagda).

Heavy fog observed at Nagda, hence trial charging of Nagda-Rajgarh-I & II was not attempted immediately and still out.

Kasor-Rajgarh-II closed at kasor at 06:20hrs and as sparking observed on B-ph isolator at rajgarh end the main breaker was closed and Bus-1 at Rajgarh came into service 06:29hrs. Rajgarh ensured the bus was checked and found healthy.

3. Areas Affected By Disturbance: No generation loss and no load loss

4. Elements affected:

Feeder/ICT	Tripping time (hh:mm)	Restoration time(hh:mm)	Remarks
400KV Nagda-Rajgarh-I	05:56	S/O	B-PHASE-Y-PHASE FAULT
400KV Nagda-Rajgarh-II	05:59	S/O	Y-PHASE FULT
400KV Kasor-Rajgarh-II	05:56	S/O	TRIPPED AT KASOR END ONLY ON MASTER TRIP INDICATION
400KV Rajgarh Bus-1	05:56	18:22	Main-2 Bus bar protection operated

5. Generation Affected:

Nil

6. Actions Taken:

Immediately, after ascertaining the healthiness of Kasor-Rajgarh-2 the line was closed at Kasor at 06:20hrs. Rajgarh Bus-1 normalised at 06:29hrs.

7. Current Status:

Both Nagda-Rajgarh D/C were under tripped condition. Patrolling to be carried out on line 1. Line -2 will be trial charged after Fog melts out.

SLDC MP, RTAMC,Vadodara and SLDC Gujarat are requested to furnish all the details of tripped lines along with Dr, EL and Relay indications.

RTAMC Vadodara may please check Breaker condition of Nagda-Rajgarh-I, operation of Main-2 bus bar protection(If the breaker L/O appeared, LBB is supposed to trip the bus).

Tripping Kasor-Rajgarh-II needs further investigation.

K Muralikrishna

(Shift Charge Manager)