

Preliminary report on tripping of 765 kV Gwalior-Agra 1&2

Reportedly, 765 kV Gwalior Agra 2 tripped on 07:14 AM on Carrier trip received and under voltage at Gwalior end. Later, at 07:32, 765 kV Gwalior Agra 1 also tripped reportedly on Power swing. Code was issued at 07:45 hrs, to test charge 765 kV Gwalior Agra 1. Charging attempt was taken at 07:40 hrs but line could not hold on R-Y Ph-Ph . Similarly, charging attempt was taken for 765 kV Gwalior Agra 2 at 08:01 hrs but the line could not hold on Y-Ph fault as reported by CPCC(Dehgam). Heavy fog was reported at site.

Antecedent conditions (07:13 hrs)

- i) WR Demand:41620 MW
- ii) Frequency:49.943 Hz

Inter-regional Flows:

- WR-NR: 6236 MW
 - i) 765 kV Gwalior Agra 1:1511 MW
 - ii) 765 kV Gwalior Agra 2:1489 MW
 - iii) 765 kV Gwalior Jaipur 1&2:725 MW each ckt.
 - iv) Mundra Mahendragarh HVDC:1800 MW
 - v) Vindhyachal HVDC: Floating
 - vi) 400 kV Kansari Bhinmal:127 MW(towards NR)
 - vii) 400 kV Kansari Kankroli:27 MW(towards NR)
- WR-SR:2748 MW
- WR-ER:1091 MW

After tripping of Gwalior Agra 2(07:30 hrs)

- i) WR Demand:41695 MW

ii) Frequency:49.974 Hz

Inter-regional Flows:

- WR-NR: 6198 MW
 - i) 765 kV Gwalior Agra 1: 2402 MW
 - ii) 765 kV Gwalior Agra 2: 0 MW
 - iii) 765 kV Gwalior Jaipur 1&2: 840 MW each ckt.
 - iv) Mundra Mahendragarh HVDC: 1800 MW
 - v) Vindhyachal HVDC: Out-of-service
 - vi) 400 kV Kansari Bhinmal:180 MW (towards NR)
 - vii) 400 kV Kansari Kankroli: 85 MW(towards NR)

- WR-SR:3141 MW
- WR-ER:1114 MW

After tripping of Gwalior Agra 1(07:50 hrs)

- I) WR Demand:41727 MW
- II) Frequency:49.917 Hz

Inter-regional Flows:

- WR-NR: 5398 MW
 - i) 765 kV Gwalior Agra 1:0 MW
 - ii) 765 kV Gwalior Agra 2: 0 MW
 - iii) 765 kV Gwalior Jaipur 1&2:1600 MW each ckt
 - iv) Mundra Mahendragarh HVDC:2110 MW
 - v) Vindhyachal HVDC: 0 MW
 - vi) 400 kV Kansari Bhinmal: 260 MW (towards NR)
 - vii) 400 kV Kansari Kankroli: 125 MW(towards NR)

- WR-SR: 2979 MW
- WR-ER: 311 MW

220kV Gwalior-Malanpur-I&II tripped at 07:34hrs on SPS operation of losing both lines of 765kV Gwalior-Agra D/C. SPS of generation reduction at KSTPS_7, VSTPS-III and CGPL also operated resulting in reduction of generation of 145MW, 215MW and 180MW respectively.

Actions Taken:

- Backing Down in Sasan :800 MW**
- Generation backed Down in **VSTPS 3: 250 MW**(the generation reduction due to SPS was continued), **VSTPS 4: 210 MW, VSTPS 5: 50 MW** .VSTPS 1&VSTPS 2 were already under ramp down due to less requisition by Gujarat. **Effectively, generation reduced by about 950 MW from 07:45 hrs.**
- Flow in Mundra HVDC increased **from 1800 MW to 2200 MW**. The flow could not be raised further as Pole 2 was operating in RVO mode.
- Actions were taken to control the under-drawal of constituents. **Hydro Generation in Maharashtra was brought to minimum level.**
- 220kV Gwalior-Malanpur-I &II normalized at 09:59hrs.**
- 765kv Gwalior-Agra-I & II normalized at 12:15hrs and 12:25hrs respectively.**

Details of DR/EL/ Relay indications from WR-II are still awaited.

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