This switching usually associated with transient voltages and currents. Those transients are:

1. inrush currents.
2. overvoltages caused by the system response to the voltage dip when energising capacitor banks.

when more than one capacitor bank is connected to the same bus. This has no influence on the conditions at interruption of the capacitive current. The current at closing, however, is affected to a high degree. 2 different situations may occur:

- The capacitor bank is energised from a bus that does not have other capacitor banks energised. (single capacitor bank switching).
- The capacitor bank is energised from a bus that has other capacitor banks energised. (back-to-back capacitor bank switching).

Capacitor banks are considered back-to-back when the inrush current on energisation is limited by the inductance between the banks which is lower than the short-circuit inductance. Back-to-back capacitor bank switching occurs when the capacitor banks are installed in the same substation at the same voltage.

In Figure capacitor bank C1 is connected to the busbar and C2 is to be connected, the inrush current associated with the charging of C2 is supplied by C1 (back-to-back switching).