



Application Sheet

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National Grid – Didcot power station, Great Britain



- In normal state, when both mains are OK, BTB is open and each load is powered from corresponding mains.
- In case of one mains failure system closes BTB and both loads are powered from the healthy mains.
- If the mains return, BTB opens and corresponding MCB will close.
- When both mains fail, the system opens BTB and starts both gensets to power each load separately.
- If both mains fail and one of gensets is unable to power its load, system starts the healthy genset, connects its load and after a short period closes BTB to connect second load.
- When one of the mains returns, the corresponding genset synchronizes, closes its MCB, transfers load to the mains, opens GCB, cools down the engine and stops it. The system goes then to the state with one mains failure described above.

Used technology: 2x InteliSys (IS 2.7, SPtM), 1x Mitsubishi PLC





Baxter – Bohumil, medicine production plant, Czech Republic

(actions taken by external control system are described in *italics*)

- In normal state, when mains are OK, BTB is closed and both loads are powered from both mains branches simultaneously.
- When mains fail, BTB opens, *external plant control system disconnects load with lower priority* and gensets start, powering each load separately.
- When the mains return (both branches), gen-sets synchronize to the mains (each by its own InteliMains), transfer load to mains, disconnect GCB's, cool down and stop the engines.
- If one of gensets is unable to start, *external plant control systems disconnects all except essential systems*, BTB closes and the healthy genset powers load.
- If the mains return, the healthy genset synchronizes to the mains (using the InteliMains) and system returns to normal state.
- When the failing genset is repaired (mains still failed), the system synchronizes it to the running genset, closes its GCB and opens BTB, *which enables the external plant control system to reconnect some systems*.

Used technology:

2x InteliMains (IM 5.0), 2xInteliGen (IG 5.5, MINT), 1x Mitsubishi PLC