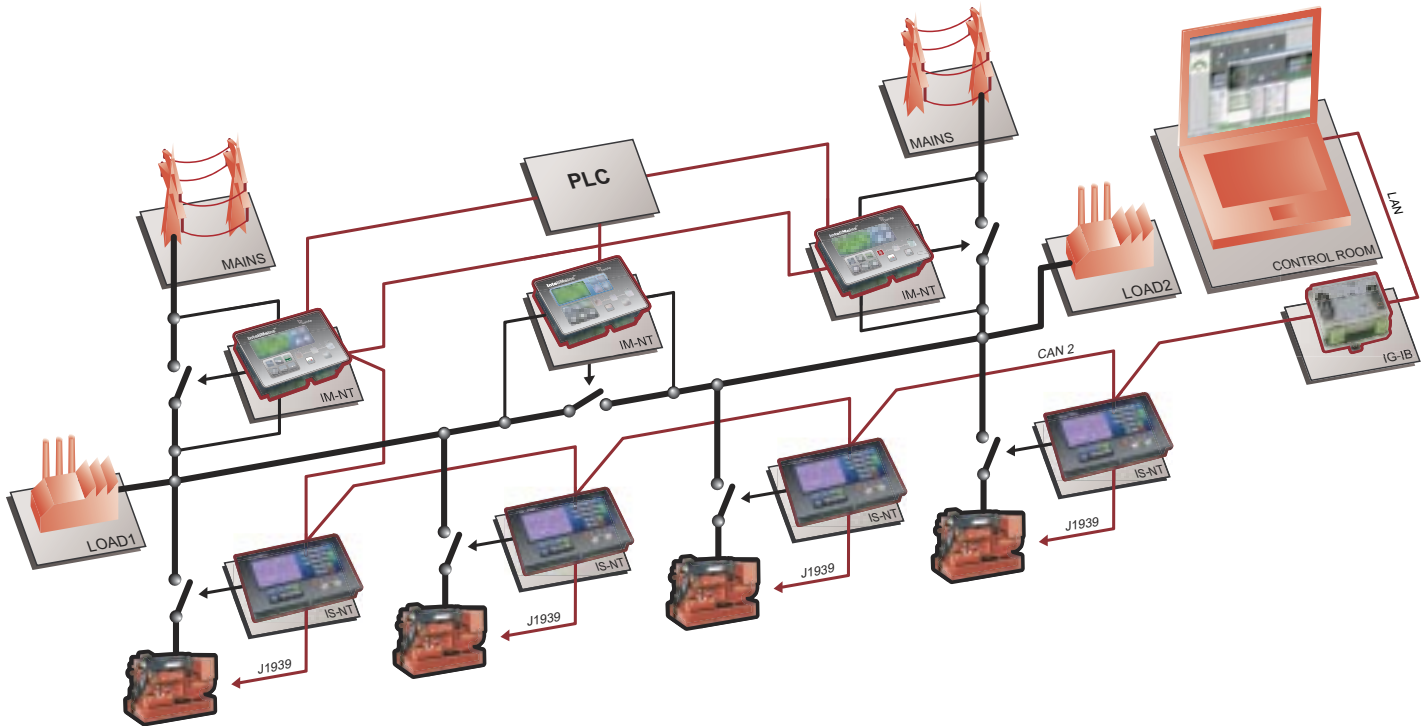# Complex installation
## – multiple grids

ComAp

## Description

- Essential load is fed by two mains feeders during normal operation to accomplish maximum reliability of the power delivery. Bus-tie breaker (BTB) is closed.
- Complex switching algorithm running in external PLC defines which breakers are opened and with are closed in dependence on availability of two mains and gensets.
- Reverse synchronizing on both feeders and on bus-tie breaker is accomplished by 3 InteliMains$^{NT}$ modules controlled by external PLC.
- Active and reactive load-sharing can operate in two modes:
  – Sharing the load between all running gensets – if BTB is closed
  – Sharing the load in two independent groups – if BTB is opened
- Automatic power dependant start/stop can operate in two modes as well:
  – Running on all gensets – if BTB is closed
  – Running in two independent groups – if BTB is opened
- All controllers are interconnected by one CAN bus all the time, disregarded if BTB is closed or open, no need for relays reconnecting the CAN bus.
- Complete system is remotely controlled and supervised from Control room connected via company LAN and IG-IB to all controllers.

## Scope of supply

- 4× IS-NT + IGS-NT-LSM+PMS dongle
- 4× IG-AVRi + IG-AVRi-TRANS/LV
- 3× IM-NT
- 1× IG-IB + IG-IB7 dongle

**COMPLEX INSTALLATION – MULTIPLE GRIDS**