



Mains Supply Details
 NMD (kVA): 230 kVA
 Tariff Info: Ruraflex (>900km <500V)
 Control Targets:
 Max Loading (%): TBD

Generator Details
 Max Step Change (kVA):
 Startup Time (min): 30s
 Minimum run-time (min): TBD
 Wet-stacking Load Threshold (%): 30
 Wet-stacking Load Max Time (hrs): 24
 Wet-stacking Recovery Load %: 70
 Wet-stacking Recovery Min Time (hrs): 2
 (i.e. 2 hrs at 70% every 24hrs)
 Max starts/hour: 10

Site Controller Details
Mains Supply Breaker
 - Monitors state of main-incoming breaker to determine whether the plant is powered by the generator
Generator
 - Decides when to start up the generator set running in parallel with the grid
 - Updates power target for the generator set when running in parallel with the grid.
Dispatchable Loads
 - Controls dispatch of loads
PV
 - Updates the PV generation limit to keep the base load above a certain threshold (when possible).
Monitoring
 Provides overview of site for remote monitoring via MLT Portal
 Measures voltage directly, measures the sum of current from the mains supply and the generator to the rest of the plant
Communication Type:
 I/O signals: for load CB control and monitoring and grid CB monitoring
 RRRCR (I/O) signals: for PV Controller (up to 7 programmable levels)
 Modbus Master communicating with Mains and Generator Controller (ComAp)

PV Installation Details
 Number of inverters: 2
 kWp/Inverter: 27.6 kW
 kWp in total: 55.2 kW

PV Control Details
 Controller Mode: Power Reduction
 Control & Export Control
 Control Parameters: % of Pnom
 Decision Criteria: Minimum Loading/phase (Amps)
Control Type:
 On/Off (Y/N): N
 Generation Limit: (Y/N): Y (RRRCR) & Export Limit: Via CCG and SE Power Meter
Communication Type:
 I/O signals (Y/N): Y
 Modbus (Y/N): N
 Modbus Slave/Master: N/A
 (Note: The inverters will have their own RS 485 Network between the master and slave unit that will be independent of the MLT modbus network).

Load Dispatch Control
 -Mains peak load/phase
 -Number of Dispatchable loads: 3
 -Load Shedding Paradigm
 -Rotate Loads/Prioritize Loads/Combo
Load Details
 -kWp/phase
 -Load Turn-off stage (Stage 1 to 3)
 -Maximum Off-Time
 -Minimum Recovery Time
 (Phase 2 – ToU control)

Mains Control Details
Communication Type (to MLT MSC):
 I/O signals (Y/N): N
 Modbus (Y/N): Y - Modbus RTU
 Modbus Mode: Slave
MCS Control Parameters:
 - Start or stop genset in parallel to the grid
 - System Base Load target when running in parallel with the grid
 - Import Limit Target
MCS Monitoring:
 Mains Voltage, Current, P, Q, S per phase
 Controller Mode and Status

Generator Control Details
MCS Control Criteria:
 Start/Stop (Y/N): Y – Only relevant for parallel operation
 Power Target (Y/N): Y – Only relevant for parallel operation
 Start/Stop Decision Criteria:
 - Generator Start Stage (3-Levels)
 - Mains Peak load/phase
Communication Type (to MLT MSC):
 No direct control comms to this controller. All control will go through the Mains Controller.
MCS Monitoring:
 Generator Voltage, Current, P, Q, S per phase
 Controller Mode and Status

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