



Pormpuraaw Retail Store:
**165kVA Standby Generator
Installation & Automation
System Upgrade**

PROJECT PROFILE

Automation & Electrical Services

The roles of Cold Energy Automation during this project were;

- Design & Construction of 4 Automation Services Switchboards.
- Design & Construction of an Automatic Transfer System Switchboard.
- Control System Design, Programming and Commissioning.
- Automation services point testing & commissioning.
- System Integration: Energy Metering, Refrigeration Controls, Air Conditioning Controls, Diesel Generator & Automatic Transfer Switch.
- Create & Commission System Graphical Supervisor.

Project Equipment

- Allen Bradley Automation System (Micro 800).
- Panel Mount Industrial Touch Screen PC's.
- Invertek Variable Speed Drives.
- PEGO Refrigeration controllers.
- CAT Olympian Generator.
- Socomec Automatic Transfer Switch.

Control System Communication Protocols

- Modbus RTU
- Modbus TCP/IP

Project Overview

The existing Retail Store underwent an energy efficiency upgrade utilising;

- 27 x Assorted Variable Speed Drives, 12 x Refrigeration Controllers, 2 x Automation Controllers, 1 x Energy Meter, 1 x 165 kVA Generator, 1 x 250 Amp Transfer Switch, 120 x LED Light fittings.

The energy efficient upgrades were applied to the working store and conditions were maintained during the project. The control system provided fan speed control to evaporators and condensers, compressor suction and head pressure control, air conditioning after hours set back, defrost and dew point control, temperature control, energy monitoring, stand-by power control and monitoring . All alarming, logging, set points and system status can be displayed and adjusted via the SCADA system, locally at a PC touch screen and remotely via remote desktop connections.