



QLD Government:

Mareeba DPI New Offices and Learning Building

PROJECT PROFILE

Mechanical Services

The roles of Cold Energy Automation during this project were:

- Design & Construction of the Mechanical Services Switchboard.
- Mechanical Electrical services fit off and control testing.
- Building Management System Design, Programming and Commissioning.
- System Integration: Energy Metering, VSD's, Water Flow.
- Create & Commission System Graphical Supervisor.
- Air & Water Balancing.

Project Equipment

- Trend Building Management System
- Danfoss Variable Speed Drives
- Siemens Water Flow & Control Valves
- Nemo Energy Meters
- Power Pax & Carrier Chiller



Control System Communication Protocols

- Trend Propriety
- BACnet MS/TP
- BACnet IP
- Modbus RTU

Project Overview

A new building was added to the existing site requiring;

- 2 x AHU's, 21 x FCU's, 2 x EF's, 4 x Pumps, 20 x Energy Meters

The cassette FCU's were controlled locally by a BACnet Trend controller for the office space. The AHU's, EF's and Pumps were controlled by 2 x Trend IQ3 controllers in the mechanical services switchboard. The energy metering and VSD's were integrated via a Trend IQ3/XNC. The complete building was displayed graphically on a touch screen PC in the foyer and site PC in the plant room via the Trend 963 supervisor. All alarming, logging, set points and system status can be displayed and adjusted at these locations.