Project Showcase:

University of Canterbury Dovedale Campus

CHRISTCHURCH

COMMERCIAL

The Dovedale Campus was completed at the end of 2017, consisting of 90 bedrooms across 16 student apartments. Each apartment includes five or six bedrooms and its own communal area.

When the University of Canterbury 's new Dovedale Accommodation Complex was designed, it was essential to choose a system that could supply energy efficient, potable hot water and space heating to all student apartments. With the ability to provide both space and water heating, Ecodan Pro CAHV Hot Water Heat Pumps were the perfect solution for this project.

The Challenge

Being an accommodation facility, there was a need for a system that could provide space heating and a large amount of domestic hot water in each apartment. Therefore, the University was looking for a solution that could satisfy both requirements while also being energy-efficient and cost effective to run. Furthermore, the complex was split across three separate buildings, each with its own plant area as requested by the client.

EQUIPMENT BREAKDOWN

- Ecodan Pro CAHV Hot Water Heat Pumps
- Wall Contollers
- Radiators

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The Solution

Five Mitsubishi Electric CAHV Hot Water Heat Pumps were used to provide heating and domestic hot water to each apartment, to cope with the various levels of usage from the tenants of each apartment.

CAHV Hot Water Heat Pumps were chosen for their high temperature output utilising R407C refrigerant allowing for the same plant to serve both the space heating and domestic hot water. The dual purpose of the units meant the amount of equipment could be minimised as the full capacity could be utilised for one requirement at a time if required. With in-built Zubadan Technology, the units have superior low ambient temperature performance so students will be kept warm even during Christchurch's coldest winter mornings. The modular design and in-built controls allowed the design to be replicated and scaled to suit the different sized buildings.

Full Equipment Breakdown

5 x CAHV-P500YB-HPB Outdoor Units – Total Heating Capacity: 225.0kW

3 x PAR-W21MAA-J Hot Water Controllers

Design and Build Contractor:

Beattie air