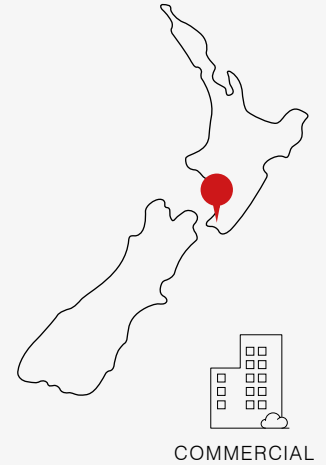


Project Showcase:

Hutt Valley International Boys School (HIBS)



UPPER HUTT



Situated in Upper Hutt, north-east of Wellington, Hutt Valley International Boys School (HIBS) is a state integrated school from years 7 to 13. With a roll of 650 students, HIBS offer small class sizes and a wide range of educational choices and opportunities available to its students.

The Goal

With roughly 50 classrooms throughout the school, this project required a number of new high wall heat pump units to be installed across the Science, Languages and Design Technology blocks.

HIBS were looking for an energy efficient heating and cooling solution for these priority rooms, to replace an older radiator heating system that had no thermostat and could not provide any cooling during summer.

The school liked the idea of being able to control the temperature of the classrooms remotely. Pre-heating rooms when necessary would enable both teachers and students to learn in comfortable classrooms.



EQUIPMENT BREAKDOWN

- EcoCore AP Series High Wall Heat Pumps (a mix of AP60, AP71 and AP80) with built in Wi-Fi Control
- Mitsubishi Electric Wi-Fi Control App

Project Showcase: Hutt Valley International Boys School (HIBS)

The Challenge

To improve on the old radiator heating-only system, the school needed greater control to preheat rooms, set room temperatures and also ensure heating or cooling could be turned off at the end of each school day.



The Mitsubishi Electric Solution

The EcoCore AP Series High Wall Heat Pumps were the preferred choice for energy efficiency as well as for a convenient built-in Wi-Fi Control function. With next generation EcoCore Technology, the AP Series incorporates a large, high-density heat exchanger, an advanced high-efficiency fan motor and a next generation compressor using the latest in super-efficient R32 refrigerant. To ensure room comfort for students to concentrate and learn well, the EcoCore AP Series is also New Zealand's quietest heat pump, starting at just 18dBA*.

*MSZ-AP25 indoor sound level on lowest fan setting in Heating Mode.

Project Showcase: Hutt Valley International Boys School (HIBS)

Wi-Fi Control for Peace of Mind Building Comfort Management

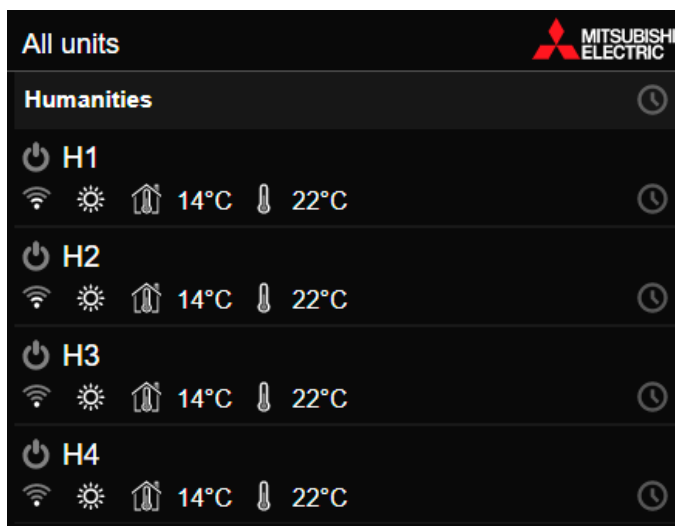
The award-winning and innovative built-in Wi-Fi Control in the AP Series Heat Pump appealed to Hutt International Boys School.

Having the ability to turn on and turn off 21 heat pumps, pre-cool or pre-heat rooms and change unit temperature outputs from a central Wi-Fi Control App on any given day has been game-changing.

The IT Department staff can manage the settings for all heat pumps via the Wi-Fi web application on their desktop, or via the Wi-Fi Control app on their smart phones.

1. Group Control

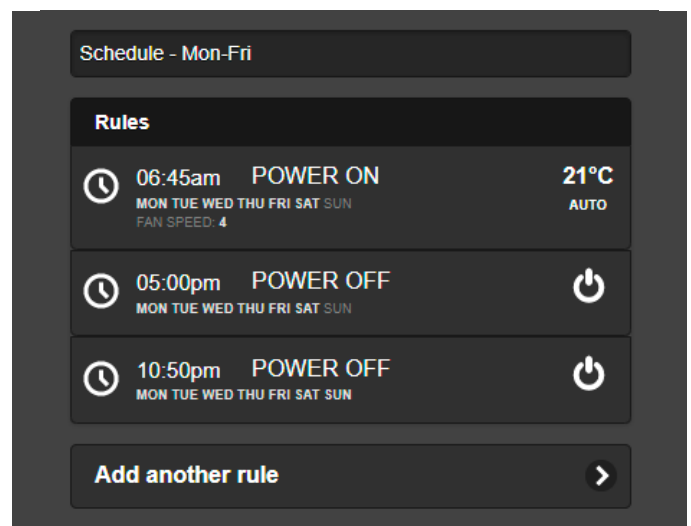
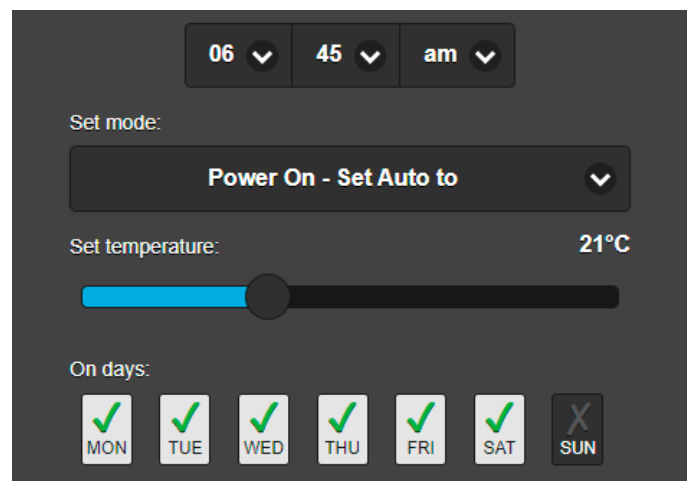
With multiple heat pumps in classrooms across the school, having the ability to group units by building block has made for easy viewing and control of occupancy comfort. The temperature of different buildings can be determined by their position to sunlight, so a block with north facing classrooms may require a lower temperature setting for example.



2. On and Off Control

The school uses simple Operating Rules, to turn all heat pumps on in winter at 6.45am before school starts and off at the end of each day at 5pm, Monday to Friday.

One final 'off' Operating Rule is applied each evening, to ensure all heat pump units are off at 10:50pm. If a heat pump is manually turned on after 5pm, because a room is in use, this operation will ensure the unit is finally switched off for the day.



Project Showcase: Hutt Valley International Boys School (HIBS)

3. Temperature Control

An Operating Rule is also used to set the heat pump units temperature across all rooms to 21 degrees celsius.

Teachers in each room have access to the heat pump unit's remote control to manually adjust the temperature if necessary, to override the centralised Wi-Fi Control temperature settings during the school day.

4. Advanced Temperature Management

Because Wi-Fi Control reflects the real-time room temperature at any time, the advanced temperature setting allows the IT team to set a minimum and maximum temperature range.



The Result

Wi-Fi Heat Pump Control has enabled HIBS to eliminate wasteful energy use across multiple classrooms, all year round. Together with energy efficient EcoCore AP Series Heat Pumps, the school has achieved its goal of heating and cooling classrooms to maximise efficiencies.

The IT Department are able to monitor settings of each heat pump and turn them all on and off at the right time each day. They report that the Mitsubishi Electric Wi-Fi Control App is easy to use and a convenient way to manage the schools heating through a single system.

Mitsubishi Electric Wi-Fi Control has enabled remote access monitoring, which is an additional benefit and peace of mind to the management team.

The Operating Rules have removed the worry of heat pumps being left on through the night or over the weekend, avoiding wasteful energy use.

Wi-Fi Control for heating and cooling has resulted in happy staff and even happier students.



Project Showcase: Hutt Valley International Boys School (HIBS)

Full Equipment Breakdown

High Wall Heat Pumps

Units:

21 x EcoCore AP Series High Wall Heat Pumps
(a mix of AP60, AP71 and AP80)

Control

Built-in Mitsubishi Electric Wi-Fi Control App

Download the app:

The Wi-Fi Heat Pump Control application can only be downloaded from the New Zealand and Australian Apple App Store or Google Play store.

Just search for "Mitsubishi Electric Wi-Fi Control".



Wi-Fi
CONTROL



Contractor:

