



Judges' Report

CATEGORY:

Electrification & Energy Efficiency

Hortus

INTERVIEWED

Alistair Thomson, Rob Slatter, Gus Lopez

DATE

19 November 2024

JUDGES

Mark Unwin, Wayne Stronach, Nik Fonua

INTRODUCTION

Hortus operates New Zealand's largest RSE (Recognised Seasonal Employer) worker accommodation facility, capable of housing 461 workers in Riverlands, Marlborough. The company has been operating since 2008 and rebranded as Hortus in 2013, focusing on providing exceptional service and ethical treatment of workers.

MAIN ISSUE/PROBLEM

High humidity levels (52%) in accommodation units were leading to increased energy costs for heating and potential health issues for workers. The humidity made heating less effective and created conditions where germs could flourish, potentially leading to increased sick days for workers.



SOLUTION

Installation of heat recovery ventilation units throughout the accommodation facility. These units capture warm air from inside rooms and use it to pre-heat incoming fresh air, reducing energy consumption while improving air quality and comfort. The project aims to reduce humidity levels from 52% to 32%.

GENERAL INFORMATION

DESCRIPTION OF PROJECT

Installation of heat recovery ventilation units throughout the accommodation facility. These units capture warm air from inside rooms and use it to pre-heat incoming fresh air, reducing energy consumption while improving air quality and comfort. The project aims to reduce humidity levels from 52% to 32%.

WHERE IT IS/WHO WAS INVOLVED

- Location: 3043 State Highway 1, Riverlands, Blenheim, Marlborough
- Key personnel
- Alistair Thomson (GM of Sustainability)
- Rob Slatter (Asset & Project Manager)
- Gus Lopez (Village Manager)
- Jason Quinn of Sustainability Engineering
- Local contractors for installation



HISTORY / BACKGROUND

Following an energy efficiency review by Sustainability Engineering, the ventilation upgrade was selected as the first priority initiative due to its potential for maximum overall impact. The installation has been implemented in stages, with demonstrated success in early phases leading to continued rollout.



CURRENT ACTIVITIES

The project is currently in stage 3 of implementation, with 48 rooms remaining to complete. Initial data shows promising results, with energy consumption reduced by approximately 3,000-7,000 KWh per month compared to the previous year.

THE JUDGES WERE IMPRESSED BY

- The holistic approach combining environmental benefits with improved living conditions.
- Significant reduction in energy consumption while improving health outcomes.
- Strong commitment to worker welfare through additional initiatives like free laundry services.
- Well-organized and efficiently managed facility.
- The communal kitchen spaces promoting social interaction and community building.

PROBLEMS AND HOW THEY HAVE BEEN TACKLED

The main challenge was addressing both energy efficiency and health concerns simultaneously. The solution effectively tackles both issues through a single technological intervention. Implementation has been managed through a staged approach to ensure minimal disruption to residents.

SUMMARY

This project demonstrates excellence in combining environmental sustainability with social responsibility. The installation of heat recovery units shows innovation in addressing multiple challenges simultaneously - reducing energy consumption, improving air quality, and enhancing living conditions for RSE workers.

SUGGESTIONS

1. Implement comprehensive data logging and monitoring systems to better quantify energy savings and efficiency gains.
2. Increase engagement with residents to gather feedback and optimize system usage.
3. Develop a health outcomes monitoring system to quantify improvements in worker wellbeing.
4. Consider adding solar energy systems to further reduce grid electricity consumption.
5. Install window sensors to optimize heating and ventilation system operation.
6. Enhance communication through multilingual information boards about system operation and benefits.