

## Case Study Panasonic & Langdon Hall Country House Hotel & Spa

### ⊕ CHALLENGES

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### @ SOLUTIONS

Langdon Hall started out with a full energy audit to find the best solution on the market. Based on the results and the recommendation of their HVAC maintenance partner, it was decided to retrofit the property with a Panasonic Variable Refrigerant Flow (VRF) HVAC system.

### ✓ RESULTS

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## Langdon Hall Country House Hotel & Spa

Nestled in the Carolinian Forest within Cambridge, Ontario is Langdon Hall – a luxury hotel, fine dining restaurant, spa and event venue. The century house was built in 1898 and remained in the same family for three generations until it was bought by the Bennett family in 1987. The new owners gradually renovated the original building and outbuildings over 20 years, transforming the residential property into the 60-room commercial hotel destination it is now.

### Challenges

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Braden Bennett, Managing Partner at Langdon Hall, explains that the key features and requirements of the new system included energy efficiency, ease of maintenance and operations, and improvement to the guest experience.



“The guiding principle was the guest experience. We needed control, we needed it on demand, and we needed it to be simple. Because no one wants to struggle with a temperature dial that they can’t manage or maintain. So, we needed simplicity and we needed functionality.”

## Solutions

Bennett explains that they started out with a full energy audit to find the best solution on the market. Based on the results and the recommendation of their HVAC maintenance partner, they decided on retrofitting the property with a Panasonic Variable Refrigerant Flow (VRF) HVAC system.

The new system is a significant improvement over the previous one. VRF technology is much more energy efficient and cost effective than the old electrical resistance heaters. For this configuration, each powerful unit is able to meet the energy needs of three rooms, allowing Langdon Hall to replace multiple standalone AC units with a VRF system. The system used is a heat pump that allows all systems to be in heating or cooling, bringing additional cost and energy savings.

Brian Pescod, Operations Manager at the Fourier Group, explains the other benefits of the system:

“One of the challenges you have with a retrofit is you’re not sure how the system can integrate; not only with the building, but the architecture and old structures. VRF is the least intrusive product on the market for a retrofit solution. That’s why it works so well for a historical building like Langdon Hall. Thanks to the Panasonic state-of-the-art inverter that has variable speeds – instead of just on and off – it supplies exactly the amount of heating and cooling required in each suite. It’s simply a more efficient, upgraded and updated design.”

The ultra-slim profile of the indoor units makes installation a breeze, as the piping can be installed in the walls and ceilings without a full demolition. The outdoor units are small enough that they can’t be seen from outside. The indoor and outdoor models also emit very low sound, ensuring guest comfort in the suites and maintaining a relaxing, pleasant atmosphere when guests walk the grounds. Each guest can also set the temperature in their own suite to heat or cool as desired.

## Results

Langdon Hall is extremely pleased with the installation of their new VRF system that maximizes guest comfort and convenience while saving energy and money. “I think it was the best choice by functionality, by efficiency and by the cost of the project,” says Bennett.

The VRF indoor units make maintenance and repair much easier. Before, it would take a technician a day and a half to go through the units, changing filters, adjusting the settings and making any required repairs. Now, the advanced technology allows for fewer units to meet the energy needs of the property, making it much faster for Langdon Hall’s operations team to care for the units. The only requirement is to clean the filter on a regular basis, it takes very low technical skill to maintain the indoor units, and any groundskeeper or custodial staff can remove the filter, clean it out and then replace it with a new one.

The units also offer excellent quality and value, combined with a warranty that ensures longevity. “We chose Panasonic as the manufacturer because they have a great product and they have great product support,” explains Pescod. “Panasonic constantly pushes the envelope with technology and their products. Their technology is second to none and is backed by a solid warranty.”

Learn more at [panasonic.com/ca/vrf](https://panasonic.com/ca/vrf)

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