



Install
a Rheem®

COMMERCIAL CASE STUDY



Transforming North Sydney office tower with a sustainable Rheem Heat Pump Retrofit

OVERVIEW

Situated in the heart of North Sydney's CBD, 80 Pacific Highway is a 14-level, A-grade office building offering modern amenities, including end-of-trip (EOT) facilities. Committed to energy efficiency and reducing environmental impact, the building required a complete retrofit of its existing gas-powered hot water system to a fully electric, sustainable solution that would maintain its prestigious 5 Star NABERS energy and water ratings.

THE CHALLENGE

The retrofit needed to replace the outdated gas plant with a high-efficiency hot water system capable of:

- Supporting the building's EOT facilities and other amenities.
- Maintaining the 5 Star NABERS energy and water ratings.
- Minimising operational costs while meeting high water pressure requirements.
- Operating effectively in a well-ventilated location, as the existing plant room had spatial constraints.

THE SOLUTION

Rheem Commercial, in collaboration with JJ Coleman Plumbing and LCI Consulting, designed and installed a cutting-edge hot water system featuring Rheem's YF Series Air-to-Water (A2W) heat pumps paired with the Crossflow Delivery Skid. This solution was tailored to meet the building's sustainability and performance goals.

Key features of the system include:

Energy Efficiency: The YF Series A2W heat pumps achieve an average Coefficient of Performance (COP) of 4.23 for the 15kW model, reducing energy consumption and operational costs.

Low Environmental Impact: Using R1234yf refrigerant with an ultra-low Global Warming Potential (GWP) of less than 1, the system supports the building's eco-friendly objectives.

High Pressure Capability: The Crossflow Delivery Skid ensures the system meets the building's high water pressure requirements, unlike standard systems.

Reliability: Heating elements in the storage tanks provide redundancy, ensuring a consistent hot water supply during peak demand.

THE IMPLEMENTATION

Rheem Commercial conducted a site inspection to address the ventilation needs of the heat pump system, identifying the car park adjacent to the existing plant room as the optimal location. Working closely with JJ Coleman Plumbing and LCI Consulting, Rheem designed the hot water plant and plinth layout to integrate seamlessly with the building's infrastructure. JJ Coleman Plumbing executed a professional installation, ensuring the system was fully operational and aligned with the client's objectives.

THE IMPACT

The Rheem YF Series A2W heat pump system has upgraded 80 Pacific Highway to a fully electric, energy-efficient building, maintaining its 5 Star NABERS ratings. It reduces costs, meets high water pressure demands, and supports sustainability with low-GWP refrigerant, setting a benchmark for eco-friendly office spaces.

This project highlights the power of innovative technology and collaborative expertise in delivering sustainable, high-performance solutions for modern commercial buildings.

CONTACT RHEEM COMMERCIAL TODAY

Paul Watson

Rheem NZ Commercial Manager

021 437 611

paul.watson@rheem.co.nz

rheem.co.nz/commercial

THE KIT

- 2 x YF Series Air to Water (A2W) 15kW Rheem Commercial Heat Pump – Non Ducted
- 2 x Rheem Stainless Steel Storage Tanks
- 2 x Heating Unit with Sun Shield 15kW
- 1 x Rheem Crossflow Delivery Skid 800kW