Father Stephen Dives from the historic St Mary's Towers, located on 500 acres of natural bushland in Sydney’s Macarthur region, approached Rheem when a competitor’s heat pumps at the retreat failed after less than five years in operation. Douglas Park is a rural area with no gas or LPG available on site. Limited capacity three-phase power on the site meant electric water heaters were not an option and the warm water system had to comply with NSW Department of Fair Trading guidelines.

Hot Water Requirements
Rheem was asked to provide a cost-effective solution to provide for the hot water and warm water needs of up to 50 people. Rheem’s challenge was to provide a suitable selection to service a building with an anticipated consumption requirement of 1250 litres over a one hour peak period each day and a total of 1875 litres every 24 hours.

Solution
- 1 x Heavy duty electric 613315 w/ 3 x 3.6kW heating elements
- 2 x 953022 heat pumps
- 3 x 610430 storage tanks
- 1 x 940160 160L/min Guardian warm water
- 1 x 940002 250L/min ultraviolet disinfection

Estimated Annual Hot Water Consumption
342,178 litres based on 50% occupancy

Estimated Annual Running Cost*
Electric Only: $5,015 p.a.
Electric and heat pump: $1,376 p.a.
Estimated Savings: $3,639 p.a. providing a 5.1-year payback period based on 24c per kWhr

Owner: Missionaries of the Sacred Heart
Installed by: Eymael Plumbing

* Data correct as at January 2017. Natural Gas estimated at 2.5 cents/MJ