



# CASE STUDY

## COMMERCIAL HEAT PUMP

### GORGON PROJECT – BARROW ISLAND



The Gorgon Project is located on Barrow Island which is situated 56km off the north-west coast of Western Australia. It is one of the world's largest natural gas projects and the largest single resource natural gas project in Australia's history. It includes the construction of a 15 million tonne per annum Liquefied Natural Gas (LNG) plant on Barrow Island and a domestic gas plant with the capacity to provide 300 terajoules per day to supply gas to Western Australia.

Gorgon LNG will be off loaded via a four kilometre long loading jetty for transport to international markets. The domestic gas will be piped to the Western Australian mainland.

#### Hot Water Requirements

- 3,300 people
- 44 people per housing block

#### Solution

- 76 plant rooms each comprising:
  - o 2 x Rheem Commercial Heat Pumps
  - o 5 x Rheem 410L Storage Tanks
  - o 1 x Rheem Guardian Warm Water and Disinfection Unit



### SPECIAL REQUIREMENTS

The plant rooms are being built in Perth including all plumbing works and shipped to Barrow Island for final fit out. Rheem assisted TDK joint venture in constructing a building to act as a design template. An engineered solution addressing cyclone operation, environmental issues, safety, physical size, installation and ongoing servicing was delivered.

#### The following special requirements were built into each system:

- Left hand and right hand construction of heat pumps and warm water systems
- Stainless steel heat pump cabinets
- Ghecko proof electronics
- Compressor tie down lugs for transportation
- Plastic pallets

Rheem also worked extensively with TDKJV and several industry partners to ensure quarantine standards would be met in both manufacture, storage and transport. Owner: Chevron | Project manager: TDKJV – Thiess Decmil Kentz Joint Venture.

