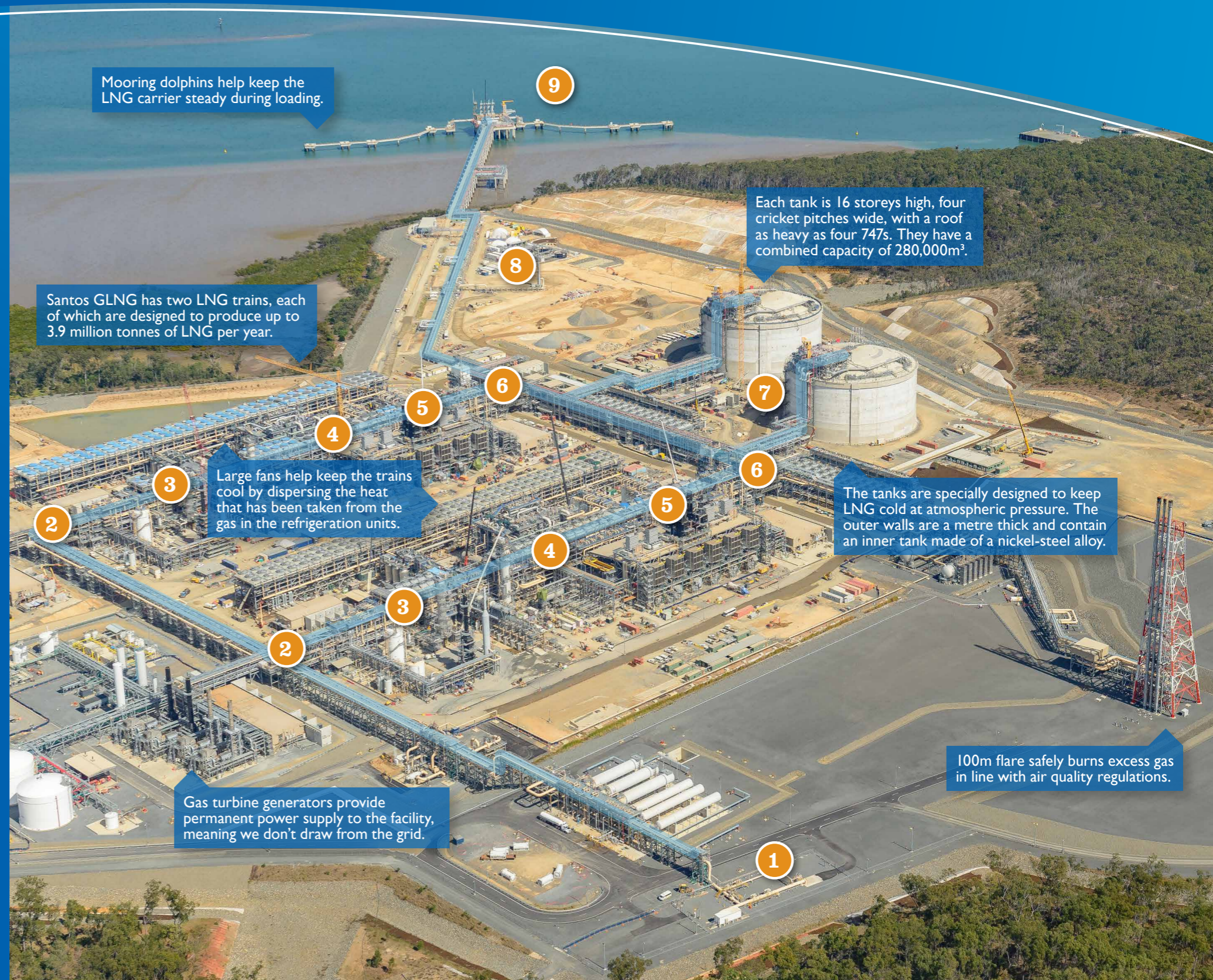


How is LNG produced?

- 1 Natural gas (mostly methane) enters plant via 420km pipeline from the Surat and Bowen Basins.
- 2 The gas is fed into Train 1 and/or Train 2.
- 3 Carbon dioxide and then water are removed.
- 4 The gas is progressively cooled in three stages using refrigerants with sequentially lower boiling points – propane (-33°C), ethylene (-90°C) and methane (-150°C). At -150°C, methane turns to liquid, but only in a pressurised environment.
- 5 In the final stage, the liquid methane is ‘flashed’ – that is, fed in to a low-pressure vessel that causes some of the liquid to vaporise and the remainder to drop in temperature to -161°C, at which point it becomes LNG and remains in liquid form at atmospheric pressure.
- 6 The LNG is pumped into the storage tanks.
- 7 The small amounts of LNG that vaporise in the tanks are captured and returned to the process to be re-liquefied. This vapourisation is what keeps the LNG cool in the tanks.
- 8 LNG is piped along the 400m jetty to the loading berth.
- 9 Four loading arms are used to load LNG onto a specially designed LNG carrier, which can carry about 140,000 tonnes.



Mooring dolphins help keep the LNG carrier steady during loading.

9

Each tank is 16 storeys high, four cricket pitches wide, with a roof as heavy as four 747s. They have a combined capacity of 280,000m³.

8

Santos GLNG has two LNG trains, each of which are designed to produce up to 3.9 million tonnes of LNG per year.

6

Large fans help keep the trains cool by dispersing the heat that has been taken from the gas in the refrigeration units.

6

The tanks are specially designed to keep LNG cold at atmospheric pressure. The outer walls are a metre thick and contain an inner tank made of a nickel-steel alloy.

6

100m flare safely burns excess gas in line with air quality regulations.

1

Gas turbine generators provide permanent power supply to the facility, meaning we don't draw from the grid.

2

4

3

4

5

3

2