



**QGC**

# HOW AN LNG PLANT WORKS



Shell's QGC business produces natural gas to supply the Australian domestic market and for export as liquefied natural gas (LNG) via our two-train LNG liquefaction plant on Curtis Island in Queensland. We produce natural gas from the Surat Basin of southern Queensland and supplies domestic and international markets.

An LNG plant refines natural gas obtained from deep within the earth and condenses it into a pure, concentrated, efficient form of energy.

It can be exported anywhere in the world or used to meet Australia's ever-growing energy demand - including firing your hot water system or stovetop.



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# AN LNG PLANT REFINES NATURAL GAS INTO A PURE, CONCENTRATED, EFFICIENT FORM OF ENERGY.



## WHERE DOES THE GAS COME FROM?

Natural gas is piped 540 kilometres from Queensland's Surat basin to Curtis Island and then super-chilled to minus 162 degrees Celcius until it is a concentrated liquid.

This is because liquefied natural gas is easier and safer to transport. When liquefied, it is less than 0.02% (1/600th) of its original volume.

During the process, 'impurities' such as small amounts of nitrogen and carbon dioxide, are removed.

When refined, it is almost pure methane— one of the most efficient sources of energy.



## HOW WE GET IT THAT COLD

Ingeniously, the plant uses the very gases it processes to provide the chill factor (have you ever noticed how cold a pressure-pack spray gets when you use it for a few minutes).

This is a very energy-efficient way to liquefy gas. Our Curtis Island plant is the world's most greenhouse-efficient LNG plant outside the Arctic Circle.

The gas is chilled to minus 162 degrees Celcius.



## WHAT THEN?

The LNG is stored on Curtis Island at near atmospheric pressure in two 140,000 cubic-metre insulated tanks.

It is then pumped via a jetty to purpose-built double-hulled vessels and shipped to customers around the world, primarily Japan, China and South Korea. Taiwan and India are emerging as important markets.

## CONTACT DETAILS

Please contact Shell's QGC business for more information.

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