



## Step One: Liquefaction

The process of turning coal seam gas (CSG) into liquefied natural gas (LNG) starts with piping the CSG to the LNG facility. On arrival at the plant, the gas is chilled to approximately -161 degrees Celsius using the ConocoPhillips Optimized Cascade® Process. This involves three refrigeration circuits using propane, ethylene and methane. Each step progressively lowers the temperature of the gas until it reaches the desired temperature and turns into a product known as Liquefied Natural Gas.

## Step Two: Storage

The LNG is then pumped into large, insulated storage tanks, with an inner tank to keep the LNG cold, and outer walls over one metre thick. As it warms, some LNG will begin to vaporise. These vapours are captured and then returned to the chilling plant where they are re-liquefied. The LNG remains in these tanks until ready for shipment.

## Step Three: Transport

Australia's LNG is exported around the world, primarily to Southeast Asia and Europe, before being regasified. It travels in large, purpose built, double-hulled ships. The shipping process is safe. Across the industry, LNG ships have travelled without a major incident in port or at sea for over 50 years.

### Benefits of ConocoPhillips Optimized Cascade® Process:

- Proven technology
- High thermal efficiency
- Ease of start-up, shut-down and operation
- Improvements based on more than 40 years operating experience, across three continents, including Australia (in Darwin).



origin ConocoPhillips

APLNG is a CSG to LNG Joint Venture between Origin and ConocoPhillips