Woodside Energy

Fact Sheet
May 2025

Flaring on the Burrup Peninsula



Overview

Flaring is the controlled combustion of hydrocarbon gases and is required for the safe operation of LNG processing facilities in certain circumstances. Flaring occurs at Woodside-operated facilities in Karratha including the North West Shelf Project's Karratha Gas Plant (KGP) and Pluto LNG.

Woodside closely monitors and aims to minimise this flaring as part of ongoing operations. However, as LNG processing facilities contain flammable hydrocarbons under pressure, some of these hydrocarbons need to be removed for safety reasons at certain times. This includes during maintenance and repairs and in other rare circumstances. The process is achieved by sending the pressurised gases to the flare system for combustion in a safe, reliable and efficient manner. Flaring may also be necessary when gas processing equipment is restarted or when new gas processing equipment is commissioned and started.

While flaring does not pose a safety risk to people, facilities or the community, the flaring can be visible.

Woodside makes every effort to proactively communicate increased flaring to make the community aware of planned and unplanned activities that require flaring.

When flaring is used

Flaring is used to keep people safe and prevent the uncontrolled release of hydrocarbon gases. It is primarily used in three scenarios

- **Operations:** Clearing hydrocarbons from isolated systems to enable maintenance work and equipment shutdowns.
- **Shipping:** In rare cases, flaring is required to safely load LNG vessels that arrive with impurities which must be removed before transfer can occur.
- **Irregularities:** Controlled flaring to safely release pressure and manage excess hydrocarbons during abnormal conditions.

Understanding flaring

Flares at KGP and Pluto LNG can be seen atop tall structures called towers. The flares burn gases such as methane, ethane, propane and butane, converting them into carbon dioxide and water.

Flare systems are designed with features to reduce 'dark smoke', a sign of incomplete combustion and an official term used to describe smoke emissions that have been visually assessed as darker than a specified shade of grey. Dark smoke is measured using the Ringelmann chart.

An alternative to flaring is venting which involves the direct release of hydrocarbons, such as methane, into the air. Woodside prefers to flare gases such as methane as the products of this burnt gas (carbon dioxide and water) have a lower global warming potential compared to venting of methane.

Ensuring compliance

Woodside complies with the regulatory requirements that apply to its flaring activities, including reporting various aspects relating to flaring (e.g. dark smoke), to regulatory authorities under the *Environmental Protection Act (WA) 1986* and *National Greenhouse and Energy Reporting Act 2007*.

Woodside also implements numerous environmental air quality monitoring controls which are detailed on the Burrup Peninsula Air Quality — Woodside Energy.



Construction of the second train at Pluto LNG