Woodfibre LNG

Flaring: Light

Flaring is a routine, safe part of operating an LNG facility. This fact sheet explains what light is produced when flaring occurs and how it may be noticed in surrounding communities.

What does light look like when flaring occurs?

Flaring does not happen all the time. When it does occur, communities with a direct view of the facility — such as Britannia Beach — will see the flame. The glow from the flare may be visible in Squamish, Stá7mes and other nearby communities.

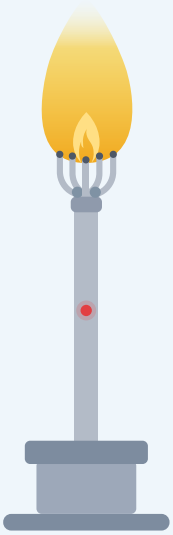
- **During the day:** flaring will **not** produce additional visible light
- **At night:** a brighter flame may be visible to residents in surrounding communities, depending on location

What determines flame height and brightness?

The brightness of the flame will vary depending on the amount of gas being flared and environmental conditions, such as cloud cover.

When flaring occurs, the maximum flare height will vary according to the amount of gas being sent to the flare at a given time and what happened at the facility to trigger the flaring event. Woodfibre LNG's engineering team estimates an average flame height of up to 60 metres and, in rare emergency situations, a roughly 90-metre-high flame for up to 15 minutes.

Three Light Sources at the Flare Stack



Flare Flame

Only during a flaring event. Height and brightness vary by gas volume. Height up to about 90 metres in rare emergency situations.

Pilot Flame

Always lit, like a gas fireplace pilot. Very small and may not be visible from a distance. Ensures immediate ignition can occur when flaring is needed.

Aviation Lighting

Always on. Required by Transport Canada. Ensures the 134-metre stack is visible to aircraft at all times.

Flame Height Scale

How Bright Will It Be in Communities?

The brightness will depend on different factors, including height of the flare and amount of cloud cover. For comparison, a streetlight is typically 10–15 lux. Light from flaring may appear brighter with cloud cover.

Lux is the standard unit of measurement for illuminance.

Cloud cover reflects the glow – illumination is lower on clear nights, higher under cloud.

1.9 lux
Flare glow at Furry Creek

3.1 lux
Flare glow at Stá7mes

3.4 lux
Flare glow at Squamish

4.5 lux
Flare glow at Darrell Bay

5.4 lux
Flare glow at Britannia Beach

10–15 lux
Typical streetlight

On the traditional territories of the Sḵwx̱wú7mesh Úxwumixw, Tsleil-Waututh and Musqueam Nations

Flaring: Light

What Woodfibre LNG Will Do to Reduce Light Impacts

Woodfibre LNG has a combination of design, operational, monitoring and regulatory controls in place intended to keep flaring to the minimum needed for safe operations and improve the controlled burning efficiency of the flaring system.

Electric-Driven Compressors

Unlike facilities that rely on gas-powered compressors, Woodfibre LNG's design uses electric-driven compressors. Compared to gas-powered compressors, these require less maintenance and therefore fewer required shutdowns. This reduces the amount of flaring associated with restarts.

Flaring Management Plan

Woodfibre LNG has developed a flaring management report, which has been approved by the BC Energy Regulator (BCER), with approximately 20 flaring mitigation measures specifically designed to minimize flaring activity.

Woodfibre LNG plans to reduce its overall light footprint. Exterior lighting at the facility will be managed to prevent excessive light by following the International Commission on Illumination's CIE 150:2017 Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations.

When in operation, Woodfibre LNG will use green LED lighting, which will be installed throughout the site to provide adequate illumination for facility staff to safely navigate around the facility. This lighting is Dark Sky compliant and light spectrum friendly to migrating birds and nocturnal animals — saving energy, protecting wildlife and reducing light pollution in accordance with Woodfibre LNG's Environmental Assessment Certificate.

Image represents predicted facility lighting based on accepted lighting design package and flare modelled on process upset scenario.

Regulatory Oversight

BCER

Under B.C.'s Liquefied Natural Gas Facility Regulation, an LNG facility permit holder must ensure that the construction of and normal operations at the facility do not cause excessive light.

Woodfibre LNG operates under a multi-level regulatory framework that involves federal, provincial and local agencies and the Sḵwx̱wú7mesh Úxwumixw. The BC Energy Regulator (BCER) provides regulatory oversight for technical operations of the facility, including flaring.

Transport Canada

The flare stack's **permanent aviation lighting** is required and regulated under Transport Canada aviation regulations – ensuring the 134-metre structure remains visible to aircraft at all times, independent of any flaring event.

Keeping Communities Informed

Woodfibre LNG is committed to transparent communication with the Sḵwx̱wú7mesh Úxwumixw and the communities around us. Share your feedback on flaring notifications and communications at info@wlng.ca.

Next Steps

For up-to-date information on flaring at Woodfibre LNG, visit woodfibrelng.ca/flaring. We want to hear how you prefer to be informed about flaring events, including any light impacts.