

# Air quality and noise

## Overview

PNG has no formal air quality standards, therefore the PNG LNG project has used international guidelines. Additionally, PNG has no environmental noise guidelines so targets for noise mitigation will be based on international petroleum industry standards.

## Air quality

- Main airborne emissions during construction will be vehicle/equipment exhausts and dust which will occur during dry conditions. Measures are in place as part of the project's Environmental Management Plan to address these aspects.
- During operations, the main emissions will originate from the process and associated generation of electricity at Hides Gas Conditioning Plant (and later the Juha Production Facility) and the LNG Facility.
- Electricity at all project facilities will be generated from natural gas, resulting in lower emissions of SO<sub>2</sub>, CO and particulates compared with generation from other fossil fuels.
- Emissions of oxides of nitrogen will be controlled by the use of low-NO<sub>x</sub> burners and dispersion modelling indicates that air quality targets for nitrogen dioxide can be readily met at the site perimeters.
- Gas compression is already in place at existing facilities at Kutubu, Gobe and Agogo. Therefore associated gas produced there and re-directed to the gas pipeline will not increase air emissions at these facilities.



## Noise

- Some degree of noise during construction is inevitable; however, the project has developed a Noise Management Plan to reduce to acceptable levels disturbance to local residents and specific fauna habitat, including marine fauna and bats.
- During pipeline construction, the period of exposure will generally be short as the pipeline installation pace is usually several hundred metres per day. At the facility locations and drilling locations, noise will occur over a longer period of time.
- Noise during operations has been designed to meet international requirements of 45 dB(A) at the property fence lines.

## Mitigation measures

The Noise Management Plan developed for project construction includes a series of measures geared to minimise noise disturbance, including:

- Selection of construction equipment based on industry good practice.
- Limit machinery and vehicle movements to defined work areas and designated roads.
- Limit construction works at night time where practicable.
- Notification of local residents of intended works and their duration where high noise from construction activities may have adverse impacts.
- Timing of short-term high noise construction activities to reduce noise nuisance and intrusion.
- Soft start for piling activities during the construction of the LNG jetty to allow any marine fauna in the vicinity the opportunity to move away.

During the operations phase, the main source of noise will be the compressors, generators, flare and pressure valves at the Hides gas plant. Noise monitoring equipment will be put in place to continually monitor levels to ensure the guidelines are met.

## Further information

Esso Highlands Limited  
Level 5, Credit House  
Cuthbertson Street  
(GPO Box 118)  
Port Moresby NCD  
Papua New Guinea

Tel +675 322 2111  
Fax +675 320 3457  
[www.pngng.com](http://www.pngng.com)