

UGANDA TO TAP METHANE GAS FOR CLEAN COOKING

BY VISION REPORTER

A bold agenda to deepen investment in Uganda's oil and gas sector, with a fresh focus on value addition, clean energy and domestic use of petroleum resources, is essential over the next five years.

A key priority in the new term will be the use of methane gas and other natural gas resources for cooking, heating and lighting, as Uganda moves towards commercial oil production expected in the second half of 2026.

The Government plans include investment in a natural gas pipeline to transport additional gas supplies from Tanzania to Uganda to support industrial development and household energy needs.

The 2026-2031 manifesto of the National Resistance Movement (NRM) commits the Government to strengthening local content in the oil and gas sector, expanding infrastructure and undertaking further exploration for petroleum and gas resources.

Uganda's new National Petroleum Policy 2025 places greenhouse gas reduction, energy transition and responsible resource management at the centre of the country's petroleum development agenda.

The policy strengthens measures for environmentally responsible extraction, methane abatement and integration of cleaner energy technologies within the petroleum sector.

Although methane is globally recognised as a potent greenhouse gas that can harm human health and ecosystems, officials say Uganda intends to harness the gas productively for clean cooking, heating and lighting, in efforts to expand access to affordable modern energy.

Large-scale methane gas production is expected to begin alongside Uganda's commercial oil production in the second half of 2026. The NRM Government has overseen the development of Uganda's oil and gas sector, putting laws, policies and infrastructure in place to support

is a rapidly transitioning market. While over 90% of the population still relies on traditional biomass (charcoal and firewood) for cooking, the Government and private sector are aggressively promoting liquefied petroleum gas (LPG) to reduce deforestation and improve health. Only 0.8% of households currently use LPG, but this can be scaled up with the right support. According to the Ministry of Energy and Mineral Development, 85% of households use firewood, especially in rural areas, while 13% rely on charcoal in urban settings.

Over the last five years, significant strides have been made in increasing the country's forest cover to 13% from 9.5% in 2015. Uganda is estimated to hold about 500 billion cubic feet of natural gas, mainly methane, in the Albertine Graben. The gas is found in the same reservoirs as crude oil in the Lake Albert development projects operated by TotalEnergies EP Uganda and CNOOC Uganda.



Eighty-five per cent of households use firewood, especially in rural areas.

Government plans call for the gas to be used for power generation, LPG production and industrial development instead of flaring it. The gas is expected to be brought to the surface during oil production.

According to the International Energy Agency, methane accounts for more than one-third of global warming. It has a warming effect about 30 times greater than carbon dioxide over 100 years and up to 87 times stronger over 20 years. The

RESPONSIBLE HARNESSING

The independent nonprofit, Natural Resources Governance Institute, recently organised a learning event at Sheraton Kampala Hotel under the theme, *Uganda's Oil and Gas Methane Emission Abatement Strategy*. The meeting brought together government officials, civil society, regulators and industry players to discuss methane management as Uganda prepares for commercial oil production.

In the oil and gas industry, methane abatement involves detecting, preventing and reducing leaks and emissions in exploration, transportation and refining. It includes technical measures such as leak detection and repair systems, improved flaring efficiency and stricter reporting and monitoring requirements.

Caroline Aguti, the assistant commissioner in the health, safety and environment division at the energy ministry, said Uganda's strategic goal is to position its extractives sector as a responsible low-emission industry from the start of production.

Presenting Uganda's institutional and policy framework for methane abatement, Aguti said strong methane management could give Uganda a competitive advantage in a global energy market increasingly shaped by climate concerns.

"There is a need for training... We need to learn best practices and ensure compliance with reduction targets," Aguti said.

Uganda's updated Nationally Determined Contribution, under the Paris Agreement, commits the country to reducing greenhouse gas emissions by 24.7% below business-as-usual levels by 2030.

MITIGATION ACTION

Onesmus Mugenyi, the deputy executive director of think tank Advocates Coalition for Development and Environment,



Some beneficiaries of cooking gas cylinders with Starbex officials. The Government is promoting LPG use as an alternative to cooking with charcoal

ANALYSTS WEIGH IN

Robert Turyakira, the executive director of civil society organisation AGHNET, urged for stricter environmental audits to assess implementation of Environmental and Social Impact Assessments.

"Healthcare systems are already strained by air pollution and respiratory infections," he said.

Dr Michael Mbogga of Makerere University warned that methane emissions could rise sharply if mitigation measures are not enforced.

"What is needed is a comprehensive methane action plan, improved transparency in the oil sector, and stronger technical capacity for emissions recording, monitoring and verification," Mbogga said.

Uganda's National Climate Change Act, 2021, provides the legal framework for climate action and requires government agencies to measure and report greenhouse gas emissions, including methane.

gases, particularly methane.

"As we move into oil production and more exploration, emissions are likely to increase. The Government is not sitting back, but multinational companies must clearly demonstrate what they are doing to mitigate methane emissions," Mugenyi said.

Principal geophysicist Tony Ddungu, who attended the event on behalf of the energy ministry permanent secretary, Irene Batebe, said Uganda's oil and gas sector is committed to global methane reduction initiatives and ending routine gas flaring except during emergencies.

"Methane abatement is about safeguarding our environment, protecting communities,

Ddungu said.

Jane Rose Atwongyeire, a senior environment inspector for oil and gas at the National Environment Management Authority, described methane as both a risk and a potential resource.

Uganda contributes only about 0.01% of global per capita carbon dioxide emissions, but Atwongyeire said the country still needs stronger regulatory systems as oil production begins.

She called for enforceable methane emission limits, mandatory leak detection and repair programmes, penalties for non-compliance and routine inspections. TotalEnergies, a partner in the Tilenga Project, has joined the Oil and Gas Methane Partnership and pledged transparent monitoring and reporting of methane emissions.

The Uganda National Oil Company has launched an environmental, social and governance strategy that includes tree-planting initiatives and a climate action plan to offset emissions.

Uganda plans to join the Global Methane Pledge and align with the World Bank's Zero Routine Flaring by 2030 initiative, moves expected to unlock technical assistance and climate financing.

Domisiano Owor, an environment officer at the Petroleum Authority of Uganda, said gas flaring would only be permitted during system upsets or emergencies.

As President Yoweri Museveni begins a new term and Uganda prepares for its first oil, the Government says methane gas will form part of a wider strategy to expand clean cooking, industrial energy supply and electricity generation while reducing wasteful flaring.

How Uganda balances oil production with climate commitments and environmental protection is expected to shape