Briefing

Wasted North Sea gas undermines calls for more UK drilling

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Summary

UK North Sea oil and gas operators continue to waste gas through routine flaring and venting. The gas lost would be worth £300 million at today's prices, and would be enough to heat 570,000 homes, roughly the number of households in South Yorkshire.

Gas that is vented and flared contributes to climate change and harmful air pollution.

If the wasted gas was captured instead, as Norwegian operators in the North Sea have done for over 40 years, it would be equivalent to almost a third of the projected peak gas production of the proposed Jackdaw gas field.

This unnecessary, polluting and wasteful practice should be ended before new drilling is entertained. Government should enshrine a ban on routine flaring and venting in law through the upcoming Energy Independence Bill, and the regulator should accelerate its crackdown on these practices.

Introduction

Debate over new oil and gas drilling in the UK's North Sea has intensified, driven in part by rising energy prices linked to conflict in the Persian Gulf.[1]

The government's current position has been to halt new exploration licences, with critics warning this risks increasing UK reliance on imported gas, as demand for gas will persist through the transition to a low carbon energy system.

However, significant volumes of gas are already wasted from UK North Sea facilities through routine venting (the direct release of gas to the atmosphere) and flaring (the burning of gas for disposal). This is a source of greenhouse gas emissions, particularly of methane, the main component of gas, which is 80 times more potent than CO_2 over a 20 year period.[2] The lost gas is a potential additional supply against which the UK is foregoing millions in untaxed and unpriced value.

Expanding North Sea drilling is being advocated as a solution to high energy prices. In reality, UK oil and gas production operates within international markets, meaning higher domestic output will have very limited to no impact on consumer prices.[3]

Reducing flaring and venting is an immediate and cost effective way to boost UK production, while also cutting pollution and meeting the goals of the UK's climate commitments, including its Methane Action Plan.

UK oil and gas operators are wilfully wasting a valuable resource

Gas wasted through flaring and venting remains a persistent and under addressed issue in the North Sea. In 2023, operators wasted enough gas to heat around 700,000 homes for a year.[4] In 2024 flaring and venting intensity rose, but due to a fall in overall output, total wasted gas fell to the equivalent of 570,000 homes, roughly the number of households in South Yorkshire.[5] These figures also exclude fugitive emissions from ageing infrastructure, which are poorly monitored but which are likely to be substantial, meaning the true scale of gas loss is underestimated.

Although flaring and venting volumes have declined since 2020, the rate of reduction has slowed markedly, suggesting policies and practices are no longer driving meaningful improvement. Crucially, most of this waste is avoidable. Technologies to capture and use the gas are well established and commercially available, yet deployment remains inconsistent across operators.

At recent market prices, volumes of wasted gas annually represent over £300 million in lost value.[6] This could otherwise be contributing to domestic energy supply, reducing import dependency and generating tax revenue, even though it wouldn't materially affect prices.

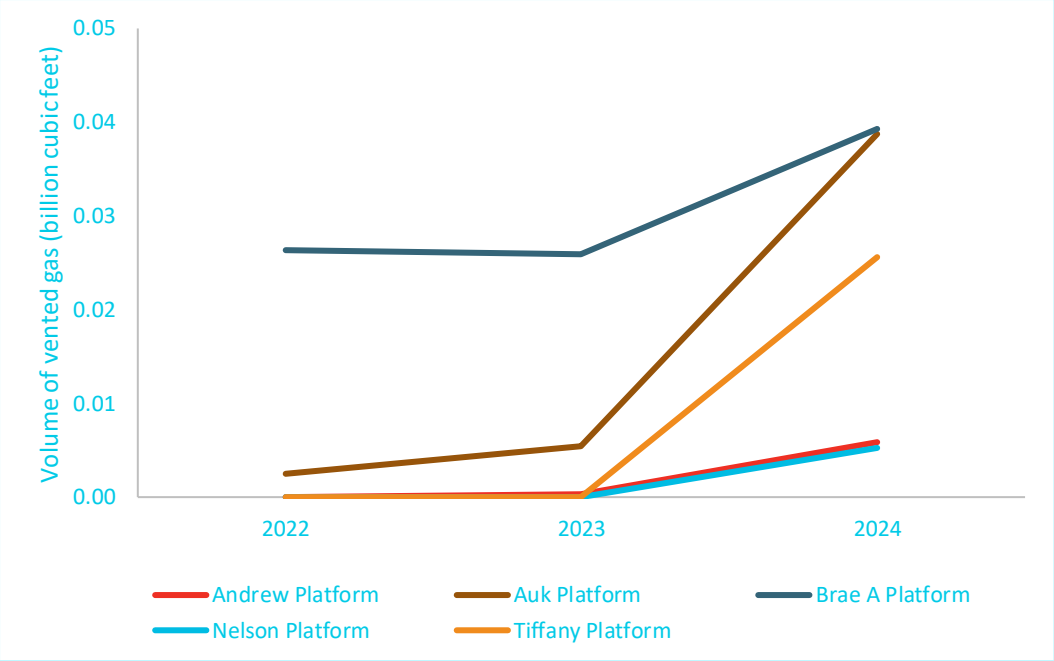
The scale is significant. The volume of gas lost each year is equivalent to nearly a third of the projected peak production of the proposed Jackdaw gas field, one of the UK's largest undeveloped North Sea projects.[7] This raises important questions about the rationale for new extraction when substantial volumes of existing production are allowed to leak into the atmosphere.

A few platforms are responsible for most of the polluting activity

In 2024, two platforms, Brae A and Auk, accounted for over a quarter of all vented gas in the North Sea.[8] These installations, operated by TAQA and Repsol, also recorded year on year increases in vented emissions. Vented volumes from Auk rose by 600 per cent between 2023 and 2024 alone.[9]

This is not an isolated trend. Multiple platforms have increased their vented emissions between 2022 and 2024, underscoring the need for stronger oversight and consistent enforcement to prevent further backsliding.

Several platforms increased their vented volumes from 2022 to 2024



Companies should be made to clean up their act

Amid ongoing political debate on North Sea oil and gas expansion, current levels of venting and flaring represent a direct and avoidable impact on UK energy and climate security, as well as lost tax revenue. Before considering new or expanded drilling, companies must be required to clean up their existing operations and prevent wasted gas.

Oil and gas producers can use a range of established, readily deployable measures to reduce or eliminate venting and flaring. These include options that can be implemented quickly without major infrastructure changes, such as using gas for on-site power generation or capturing and compressing gas for onward transport.[10] While these interventions are often profitable, they can be less profitable than new drilling. The onus is therefore on the government to require operators to act. The UK has committed to zero routine flaring and venting by 2030, but if progress continues to wane, this target will be missed.

Reducing methane emissions is also central to the UK's climate commitments and maintaining its role as a champion of the Global Methane Pledge, which it has signed with 160 other countries. Persistently high levels of flaring and venting undermine these commitments and weaken UK credibility in international climate leadership.

Recommendations

- As part of the upcoming Energy Independence Bill, the government should secure an end to routine flaring and venting in law and bring the implementation date forward two years, from 2030 to 2028.
- In the meantime, the North Sea Transition Authority should accelerate efforts to end routine flaring and venting, through stronger penalties for non-compliance and more robust monitoring of high emitting platforms.

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Endnotes

[1] F Harvey, 1 April 2026, "Would more north sea drilling mean lower energy prices for UK consumers?", *The Guardian*
[2] R Allen, M Dunn and L Hardy, 2025, *The climate emergency brake: an ambitious plan to cut UK methane emissions*, Green Alliance
[3] Carbon Brief, 'Fact check: nine false of misleading myths about North Sea oil and gas', www.carbonbrief.org/factcheck-nine-false-or-misleading-myths-about-north-sea-oil-and-gas/, (last accessed 27 April 2026)
[4] M Dunn and L Hardy, February 2025, briefing, 'North Sea operators waste gas worth millions through continued venting and flaring', Green Alliance
[5] In 2024, 566 million cubic metres of gas were flared and 11 million cubic metres were vented, according to the North Sea Transition Authority's 'Emissions Monitoring Dashboard' (2025). This combined volume was converted to energy using the UK governments 'Digest of UK energy statistics' values, including a calorific value of 40, a correction factor of 1.02 and a conversion factor of 3.6, resulting in an estimated 6,564,000MWh. Based on Ofgem's estimate that a typical UK household consumes 11,500kWh of gas per year, this is equivalent to the annual gas use of approximately 571,000 homes.
[6] The total energy from flared and vented gas in 2024 was converted from kWh to therms (1 kWh = 0.034 therms) and then multiplied by the wholesale price to estimate the monetary value of the wasted gas using the average wholesale gas price for March 2026 (£1.35 per therm).
[7] Shell, February 2022, 'Jackdaw field development: environmental statement', page 55
[8] Data on venting and flaring volumes by individual platforms is available from the North Sea Transition Authority's 'Emissions Monitoring Dashboard' (2025).
[9] According to the North Sea Transition Authority's 'Emissions Monitoring Dashboard' (2025), in 2023, Auk's total volume of vented gas was 0.005 billion cubic feet, and in 2024, this rose to 0.04 billion cubic feet.

[10] International Energy Agency (IEA), 'Gas flaring', www.iea.org/energy-system/fossil-%20fuels/gas-flaring , (last accessed 27 April 2026)