In 2021, the United Kingdom's offshore oil and gas industry committed to a range of methane emissions reduction actions under the North Sea Methane Action Plan. This plan comprises a halving of methane emissions by 2030 against a 2018 baseline, and a 90% reduction by 2050. This case study outlines core elements of the Methane Action Plan, which was designed to complement and support regulatory measures in the UK.

**Context**
Methane emissions reduction is a significant challenge and opportunity for the United Kingdom's offshore oil and gas industry. In 2019, emissions of methane from offshore oil and gas activities, including processing terminals onshore, amounted to 42,000 tonnes. Methane emissions have more than halved since 1990, as a result of reductions in flaring and in particular venting. From 2013 – 2018, methane emissions remained largely stable despite a 20 per cent increase in North Sea oil and gas production, demonstrating an improvement in its methane intensity. Under the North Sea Methane Action Plan, a new methane intensity target of below 0.20% by 2025 has now been set, with the aim of driving better short-term operational efficiency.
The Methane Action Plan (MAP)
In June 2021, the UK offshore oil and gas industry led by Oil & Gas UK (now Offshore Energies UK – OEUK) committed to a range of methane emissions reduction actions under the North Sea Methane Action Plan, part of the broader North Sea Transition Deal agreed with the UK Government. The Methane Action Plan comprises six core elements, including a halving of methane emissions by 2030 against a 2018 baseline, and a 90 per cent reduction by 2050. Together, the commitments are intended to support the UK reaching net zero greenhouse gas emissions by 2050.
In addition to the 2030 methane reduction target and the 2025 methane intensity target, a range of other actions and related targets were included in the North Sea Methane Action Plan. The industry aims to meet the World Bank’s Zero-routine flaring target by 2030, with individual assets seeking to accelerate compliance where possible before 2030. In addition, each asset committed to develop its own Methane Action Plan by Q4 2022, as well as to validate their quantification of methane emissions through measurement approaches where possible. Finally, the industry through OEUK committed to align its practices with international standards and reporting principles, including OGMP 2.0, IPIECA’s Methane Emissions Glossary, and MGP’s Best Practice Guides, as well as to publishing emission trends and performance relative to the targets at aggregate UK continental shelf level. Each action is currently being further detailed through OEUK-led Methane Task Finish Group, and the OEUK will publish a methane guideline in July 2022 to help operators to develop their action plans.

The North Sea Methane Action Plan is also designed to complement and support regulatory measures in the UK to reduce methane emissions, including from bodies such as the North Sea Transition Authority and the Offshore Petroleum Regulator for Environment and Decommissioning. The industry will also work with the oil and gas supply chain to translate the Methane Action Plan goals into a supply-chain specific Methane Action Plan by Q4 2022.

More broadly, the North Sea Methane Action Plan is intended to be a template for other industry methane reduction actions globally, as it encompasses operational, policy and technological aspects. Practical steps are now being taken towards achieving the objectives of the Methane Action Plan, with some operators considering recovery of waste gas for sale, or to use as a way of generating power in the event that offshore assets cannot be electrified. The Methane Action Plan includes a commitment that all newly built facilities installed on the UK’s continental shelf post-2025 will comply with zero flaring and include such gas recovery systems. In the longer-term, as part of the Methane Action Plan, the UK’s offshore oil and gas industry will continuously reduce methane emissions through developing Best Available Techniques on its assets, focusing initially on the largest sources such as flaring and venting, as well as supporting the development of individual Asset Methane Action Plans. Such plans will include all aspects of methane management, including regulatory requirements and guidance. They will also include a description of the methodology followed by the operator to quantify methane emissions, indicating how it relates to measurement approaches. In addition, under these plans, operators will develop and follow a flare and vent management plan, taking into account the asset situation within its lifecycle (e.g. new developments are expected to have more ambitious methane management plans).

The role of targets is particularly important as a tool in the North Sea Methane Action Plan: OEUK will monitor these through cross-industry benchmarks, key performance indicators and annual assessments of progress. The North Sea Methane Action Plan aims to stimulate cross-industry and broader stakeholder engagement to achieve a step change in methane reduction strategies, eliminate routine flaring by 2030 and promote better management of methane emissions since the design of new oil and gas assets.

We hope the Oil and Gas Sector Toolkit for the Global Methane Pledge is a useful resource to drive progress in this sense. In Additional Resources, there are tools to support such efforts, including the Flaring Emission Mitigation Cost Tool or the Gap Assessment Tool. Meanwhile, Monitoring Pathways shows experiences in improving measurement-based methane monitoring and related case studies.
Find out more

Industry initiatives

MGP best practice guides

Oil and gas methane partnership 2.0

This case study was prepared and submitted by Offshore Energies UK and does not necessarily reflect the views or positions of all of the Signatories and Supporting Organisations of the Methane Guiding Principles.