

Methane is a powerful greenhouse gas **responsible for more than 25 per cent of the warming** we are experiencing today. Reducing methane emissions quickly is one of the most powerful actions that humanity can take in the near term to slow climate change and improve air quality. The oil and gas sector is one of the largest sources of anthropogenic methane. Low-cost emissions reductions across the industry could provide up to 15 per cent of the emissions cuts required to meet the goals of the Paris Agreement. Action on methane is increasing among stakeholders around the world.



Key Messages

- **Deep reductions** in methane will be necessary to help limit global warming to 1.5°C or 2°C, according to the Intergovernmental Panel on Climate Change.
- Methane is the primary component of natural gas, making **the oil and gas sector a major source of emissions**. However, many solutions exist that would allow the industry to lower emissions at low- or zero-net cost.
- **There is a lack of data** on where and how much methane is emitted. While there is enough information to act now, addressing emissions at the scale and in the timeframe necessary to meet the 1.5°C warming target requires better understanding of methane emission levels and sources.
- **Global ambition** to address methane is gaining momentum. Many large oil and gas companies have set methane reduction targets, and major oil and gas-producing countries – including the United States of America, Canada and Mexico – have committed to reducing emissions.
- **Multi-stakeholder groups have formed** to address methane emissions, including the Methane Guiding Principles, the Global Methane Initiative, and Climate and Clean Air Coalition, of which the United States was a founding member.

Key Data

- Methane is a powerful pollutant with **a global warming potential over 80 times greater than carbon dioxide** during the 20 years after it is released into the atmosphere.
- A series of studies by the Environmental Defense Fund found that **emissions in the United States were on average 60 per cent higher than inventories reported**, and that the average methane leak rate of 2.3 per cent erodes much of the climate advantage gas has over coal.
- The International Energy Agency estimates that **over 75 per cent of methane emissions could be mitigated with technology that exists today – and up to 40 per cent at no net cost**.

Further Reading

[Emissions Gap Report 2020](#)
[Assessment of Methane Emissions from the US Oil and Gas Supply Chain, R. Alvarez et al., Science, 2018](#)
[Best Practice Guidance for Effective Methane Management in the Oil and Gas Sector; Monitoring, Reporting and Verification and Mitigation, UN Economic Commission for Europe](#)
[Driving Down Methane Leaks from the Oil and Gas Industry, International Energy Agency](#)