

Our aims & objectives

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Reducing methane

Our aim 4 is to install methane measurement at all our existing major oil and gas processing sites by 2023, publish the data, and then drive a 50% reduction in methane intensity^a of our operations.

And we will work to influence our joint ventures to set their own methane intensity targets of 0.2%.



Why methane measurement matters

There are two challenges in tackling methane – the first is the identification and quantification of emissions – where some important technology is in its infancy. The second is finding ways to reduce emissions – where there is a lot of work happening across industry. We’re playing an active part in both and took some important steps in 2020.

How we will meet our aim

By the end of 2023 we will roll out a new measurement approach to relevant sites. This new approach, developed in 2020, comprises a prioritized hierarchy of options for making more use of methane measurement.

Based on this new measurement approach we have set a 2025 target of 0.20% and have now moved away from a target based on general industry methodologies, such as calculating or estimating emissions using emission factors.

We are focusing on achieving reductions across our key methane sources, including fugitives, combustion and flaring; and on producing a greater proportion of our gas from lower intensity operations. We are also investing in technology to reduce methane and improve our ability to measure it.

We want to promote the increased use of methane measurement more widely across industry, but this will take time.

The deployment of new measurement technology represents a major step-change in our industry’s approach to detecting, quantifying and reducing methane emissions.

Rolling out our new approach between now and 2023 will involve continued testing and initial deployment of measurement technologies and equipment for in-scope sites and businesses.

To guide us, we have developed a methane measurement hierarchy. With technology to detect and measure methane evolving fast and different technologies possibly being better suited to different types of assets and geographies, a flexible approach allows us to move towards increased continuous site and source level measurement systems as more advanced technology becomes available.

We will use the data gathered as we progress to set the baseline for further reductions. To fully establish this baseline globally we will need data from the global application of our measurement approach (expected late 2023/2024). We will provide further details in the future.

 [Read more at bp.com/methane](https://www.bp.com/methane)

Flaring is one of the main sources of methane for our sector, so we continue to focus on flare reduction activity and to support the World Bank’s Zero Routine Flaring by 2030 initiative, which brings together stakeholders to work together to eliminate routine flaring from operated oil assets by 2030. In 2020 bp with Shell submitted comments to the Texas Railroad Commission supporting an ambition of zero routine flaring in Texas.

Our performance in 2020

Throughout 2020, we continued working to reduce our operational methane emissions – from upgrades in mature production fields to the design of new technology. For example, at our Clair field, west of Shetland, we are trialling the use of unmanned drones fitted with advanced sensor technology to take readings. We’re using the information they provide to inform our thinking about how we may use technologies of this kind in future.

Methane intensity

Our methane intensity in 2020 was 0.12%, an improvement from 0.14% in 2019.

In 2020 methane emissions from upstream operations, used to calculate our intensity, decreased by 22% to 71.6kt in 2020, down from 92.2kt in 2019. This reduction in methane intensity was mainly due to divestment of our Alaska operations and some bpx energy assets. Sustainable emissions reductions projects and flaring reductions also contributed, the largest reductions being delivered by bpx energy and in Angola.

Marketed gas decreased by 9% (3,075bcf in 2020 from 3,370bcf in 2019).

Our methane intensity is currently calculated using our existing methodology and, while it reflects progress in reducing methane emissions, it will not directly correlate with progress towards delivering the 2025 target under aim 4.

^a Methane intensity refers to the amount of methane emissions from bp’s operated upstream oil and gas assets as a percentage of the total gas that goes to market from those operations. Our methodology is aligned with the Oil and Gas Climate Initiative’s (OGCI).

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Working with others

We continue to work with key stakeholders on activities designed to improve detection, measurement, quantification, verification and reporting of methane emissions. We're taking a leadership role in addressing the methane challenge through the improvements we've made to our own operations, but also through collaboration with our peers, NGOs, third-party experts and academic research institutions.

We want to influence our joint ventures to set their own methane intensity targets of 0.2%.

In 2020 bp established a non-operated joint venture (NOJV) centre of excellence providing support to teams in bp who work with our NOJVs, including on reducing methane emissions.

- bp is a signatory to the Methane Guiding Principles (MGP) and is actively encouraging our joint ventures and partners to sign up. Rosneft, which we have a 19.75% shareholding in, has also signed up and is working towards applying the MGP principles within their operations and our joint ventures with them.
- We are also working with the Environmental Defense Fund (EDF) and together with them in 2019 we announced a three-year strategic collaboration to advance technologies and practices to reduce methane emissions from the global oil and gas industry. The agreement will enable collaboration on projects that test technologies and emerging strategies to continue improving methane management. bp and EDF hosted a workshop on addressing methane emissions from joint ventures in June 2020 resulting in a specific MGP initiative to address the topic. This work is ongoing.

- We were a key contributor to the development of the Oil and Gas Methane Partnership, or OGMP, version 2, which is all about enhancing reporting and methane emission reductions and which is supported by the United Nations Environment Programme, the European Commission and EDF.
- Our work with the Oil and Gas Climate Initiative (OGCI) continues to support improvements in methane science as well as reductions and measurement technology. Investments in recent years have included technology for measuring methane from satellites, drones and aircraft which bp has started to pilot and deploy in our operations.

Using digital metering to help reduce methane emissions

For bp's oil and gas operations, reducing emissions associated with flaring is a key challenge because whilst flares can be one of our major sources of CO₂ and methane emissions they also play a critical safety role, so cannot simply be switched-off.

Quantifying how much gas has been flared more accurately is the first challenge – and as part of our aim 4 we are undertaking a global review of flare meters on our operated oil and gas producing facilities. Any flares that fall short of our required performance standards will be upgraded.

But to fully understand how well our flares are operating we also need to test how efficiently they are burning. Increasingly we do that by using the latest computational fluid dynamics techniques to understand how our flares behave over the full range of operational and weather conditions and we sometimes also measure their efficiency using advanced spectral radiometry techniques.

In 2020, we went one step further – by making that kind of information available in real-time to one of our facilities, meaning that any changes in flare performance can be identified rapidly and managed.

In a successful trial on Glen Lyon – a floating production, storage and offloading vessel west of Shetland – we trialled the use of FlareIQ, a predictive analytics technology developed by Baker Hughes. FlareIQ provides flaring performance information continuously, using the power of cloud-computing to run complex models remotely and feeding it back to our facility in seconds. Following the trial FlareIQ is now installed on Glen Lyon and when we have made it easier for field staff to use, we plan to deploy it more widely.

Flaring is not only important to bp but to others in our sector, so we are taking these insights and developments to our partners, for example, through the recently announced joint initiative to address reporting from flares as part of the Methane Guiding Principles, working in collaboration with Rosneft.



^ We successfully trialled FlareIQ performance monitoring technology on our Glen Lyon vessel.

Cautionary statement

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Actual results may differ from those expressed in such statements, depending on a variety of factors including the risk factors set forth in our most recent Annual Report and Form 20-F under "Risk factors" and in any of our more recent public reports. Our most recent Annual Report and Form 20-F and other period filings are available on our website at www.bp.com, or can be obtained from the SEC by calling 1-800-SEC-0330 or on its website at www.sec.gov.

