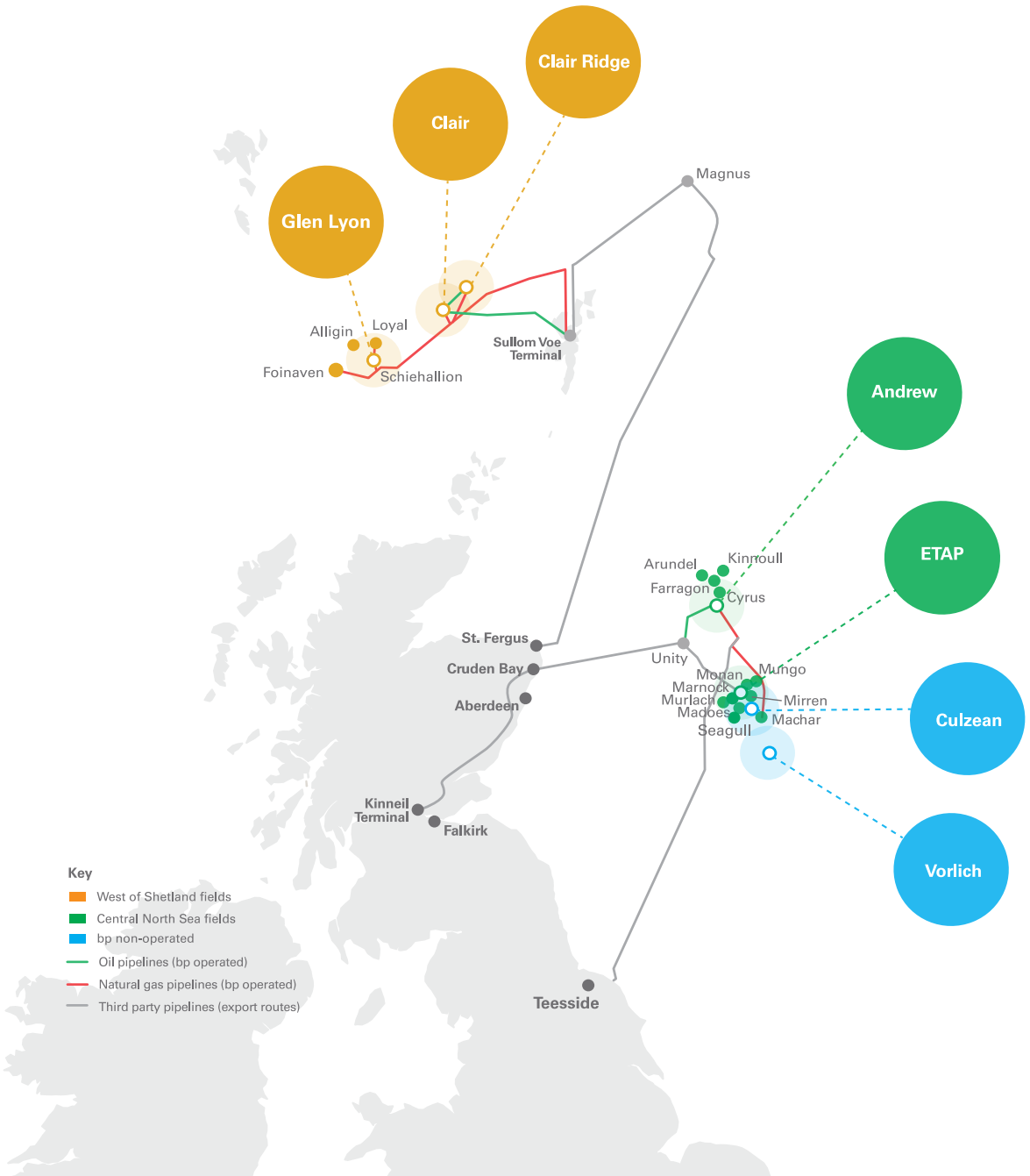
North Sea Region

2024 Annual Environmental Statement

Introduction

This is the annual environmental statement for the bp entities which operated in the United Kingdom Continental Shelf (UKCS) in 2024. It has been prepared in accordance with the requirements of OSPAR Recommendation 2003/5 to promote the use and implementation of environmental management systems by the offshore industry.

The statement covers offshore installations operated by bp entities and facilities owned and operated by third parties while providing services to bp entities in the North Sea. It does not include information on our non-operated portfolio. The data provided in this report was previously reported to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) via the Environmental Emissions Monitoring System (EEMS).



bp North Sea

bp's purpose is to deliver energy to the world, today and tomorrow.

We are an integrated energy company, one of only a few that can deliver energy at global scale through a decades-long energy transition. bp has been operating in the North Sea for more than 60 years, providing a reliable source of energy to consumers around the world.

Our focus is continuing to invest in our North Sea portfolio to help meet the energy needs of today and tomorrow, producing energy that can be delivered safely and responsibly while at the same time looking for new ways to lower emissions associated with our operations.

bp's approach to sustainability is built on strong foundations that guide the way we work and support our net zero operations, net zero sale, people, biodiversity and water aims. Our sustainability frame underpins delivery of our strategy, and our refreshed sustainability aims are focused on those that are most relevant to the long-term success of our business.

Our focused sustainability aims

Net zero operations

Our aim is to reach net zero by 2050 or sooner for Scope 1 and 2 emissions within bp's operational control[a], including by maintaining 'near-zero' methane intensity across our operated producing assets, enabled by supportive government policies.

Net zero sales

Our aim is to reduce to net zero the average lifecycle carbon intensity of the energy products we sell by 2050 or sooner, enabled by supportive government policies and the decarbonization of energy demand.

People

Our aim is to support our employees and local communities through the energy transition.

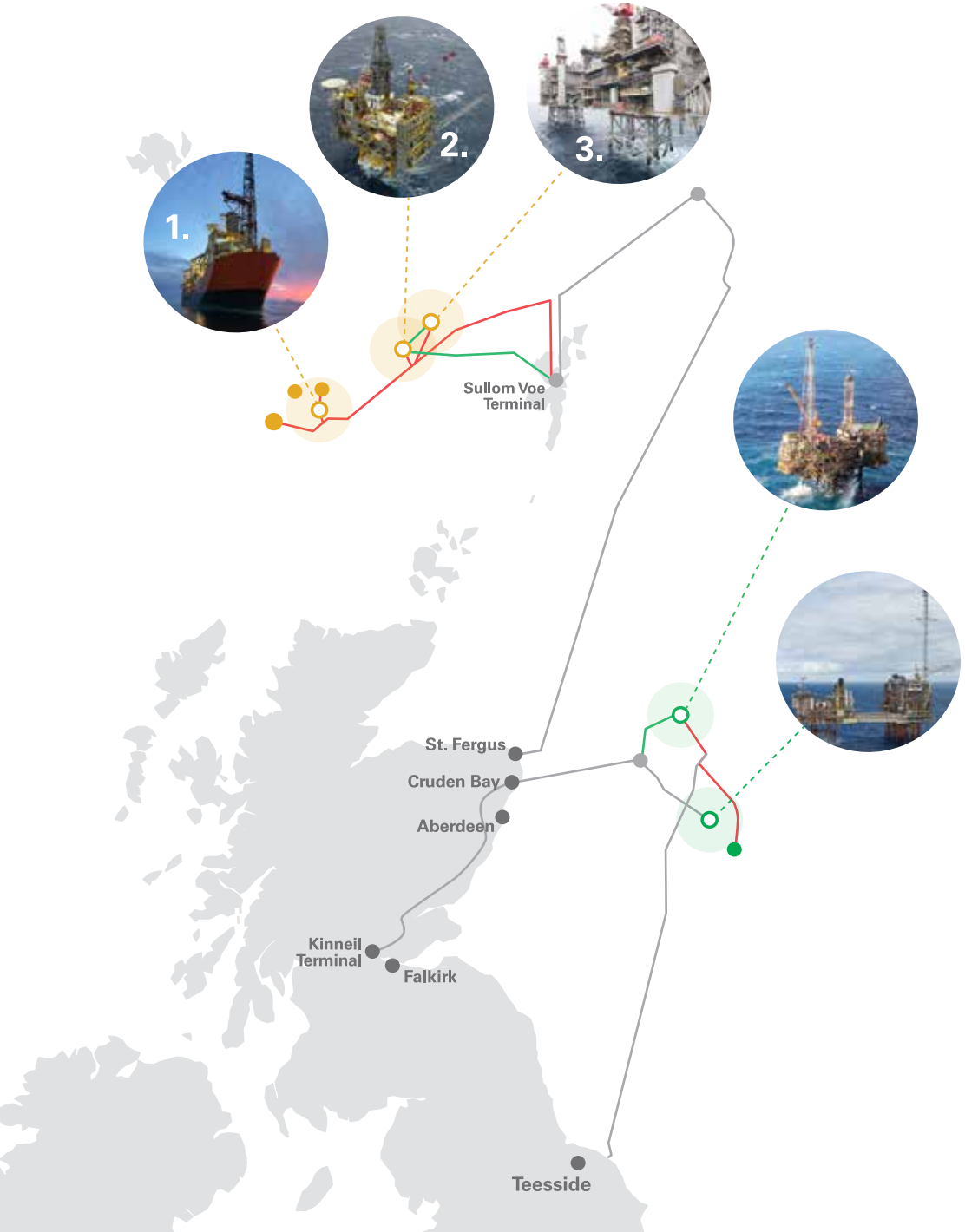
Biodiversity

Our aim is to support biodiversity where we operate[b].

Water

Our aim is to reduce our net freshwater use in stressed catchments where we operate.

This document sets out the progress we're making towards net zero operations and biodiversity in the North Sea, as well as other environmental updates, across our North Sea operations.



1. Glen Lyon

The Schiehallion area incorporates the Schiehallion, Loyal and Alligin fields located around 175 kilometers west of the Shetland Islands. The fields produce through the Glen Lyon floating production, storage and offloading (FPSO) vessel. In 2023, we commenced a drilling campaign to further develop existing fields in the Schiehallion area, with new production wells being tied back to the Glen Lyon FPSO.

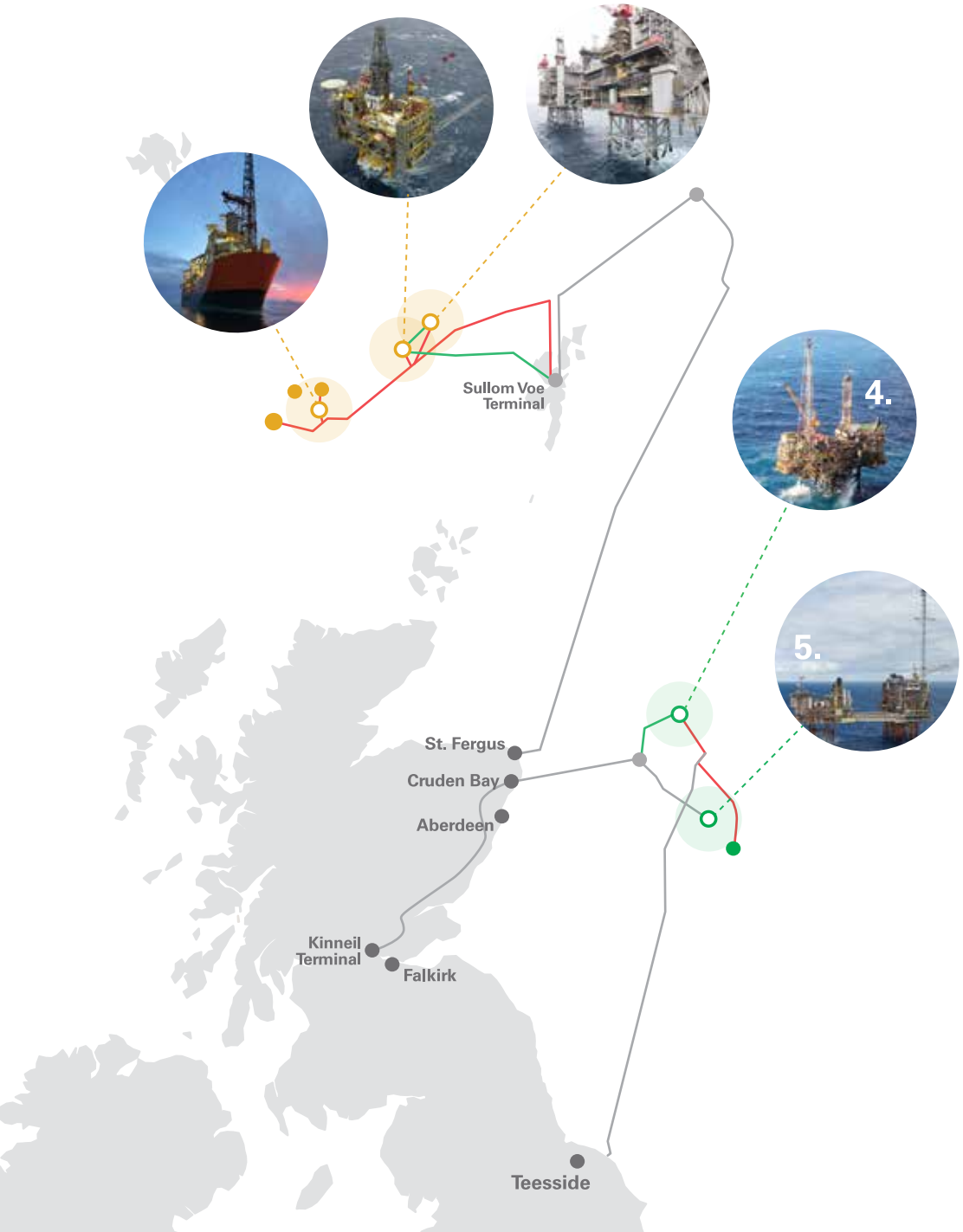
2. Clair Phase 1

With an estimated seven billion barrels of oil in place, the Clair field is the largest oilfield on the UK Continental Shelf. The field, located 75 kilometers west of Shetland, was discovered in 1977, but challenging reservoir characteristics and the technological limits of the time meant it was the mid-1990s before the field saw extensive drilling, and 2001 before bp and partners approved a development plan. Production from the Clair field began in 2005 through the Clair Phase 1 platform, which was the first fixed platform west of Shetland.

3. Clair Ridge

The size of the Clair field dictates development via a phased approach. Clair Ridge is the second phase of development. The bridge-linked platforms, which delivered first oil in November 2018, are designed to recover an estimated 640 million barrels of oil. bp and partners are now considering options to unlock future energy potential from the Clair field through a third phase of development.

In 2022, bp, along with other west of Shetland operators, signed a memorandum of understanding to explore electrification options for west of Shetland oil and gas interests, including at Clair. Electrification is one of the options being evaluated to reduce emissions associated with offshore operations.



4. Andrew

The Andrew area includes the Andrew, Arundel, Cyrus, Farragon and Kinnoull fields, which all produce through the Andrew platform in the central North Sea. Production started in 1994. As the Andrew platform approaches cessation of production, bp is operating the platform under a late life business model that seeks to ensure safe and reliable operations through the platform's final years. In 2024 bp safely and successfully removed the rig from the Andrew platform, in preparation for cessation of production.

5. Eastern Trough Area Project (ETAP)

ETAP, in the central North Sea, is considered one of the largest and most commercially complex oil and gas developments in the North Sea; multiple fields with varying ownership sharing a central processing facility (CPF). bp operates all the ETAP fields; Machar, Madoes, Mirren, Monan, Marnock, Mungo and most recently Seagull, which began production in 2023.

bp is pursuing opportunities to sustain production at ETAP, including the Murlach field, which has been in development throughout 2024, following regulatory approval in 2023.

bp is also exploring options to decarbonize the ETAP CPF to reduce operational emissions. A normally unattended installation (NUI) over Mungo stands around 20 kilometers east of the ETAP CPF. Apart from Mungo, which has surface wellheads on the NUI, all other ETAP fields are connected to the CPF via subsea infrastructure.

Foinaven (not operational)

The Foinaven field is located 190 kilometers west of Shetland in water depths of up to 500 meters. It was the first deepwater development on the UKCS and the first west of Shetland. In April 2021, bp announced it would be retiring the Petrojarl Foinaven FPSO from operations as the vessel had reached the end of its design life and it was safely removed in 2022. bp is now progressing planning for decommissioning of the Foinaven field.

Non-operated interests

bp holds non-operated interests in the TotalEnergies Culzean development and the Ithaca Energy Vorlich field, both in the central North Sea.

Environmental management

The North Sea oil and gas sector is subject to strict environmental regulation.

We work closely with regulators to continuously review what we do, how we do it and how we can do it better. Our operating management system, which includes our environmental management system, is a set of integrated procedures and processes designed to drive continuous improvement in our operations, including regulatory compliance and environmental performance.

Our North Sea operations were independently attested against the requirements of ISO14001:2015 in September 2024.

In 2024, we completed several activities in support of our North Sea environmental goals, including:

- Continuing methane measurement drone flights across the region.
- Using data from our newly installed Predicted Emissions Monitoring Systems from turbines and Flare IQ (used to calculate flare combustion and destruction efficiency based on data measurements from the field) for non-regulatory reporting.
- Using thermal cuttings cleaning for the disposal of cuttings from three wells, which helped reduce the number of skip lifts, emissions from vessels transporting cuttings to shore and the quantity of solids sent to landfill.
- Completing a suite of seabed imagery surveys associated with our West of Shetland operations.
- Establishing the North Sea Sustainability Network connecting onshore and offshore employees to share ideas and identify opportunities to achieve our sustainability aims.
- Committing to support INSITE Phase 3, an innovative European-wide independent science programme examining the influence of man-made structures in the North Sea's marine ecosystem.
- Supporting volunteering programmes for the River Dee Trust including invasive species removal and tree planting, with over 800 saplings planted in 2024. We also continued to support the 'Save the Spring' campaign.
- Supporting the North East BirdBox Initiative, joint sponsoring a two-year partnership with GreenTweed Eco to provide birdboxes to every primary school in Aberdeen and Aberdeenshire.

Area	Objective
Compliance and conformance	Maintain environmental regulatory compliance, and conformance with our internal requirements, to retain bp's North Sea license to operate.
Sustainability	Support implementation of the sustainability plan within the region and support delivery of emissions reductions.
Development, efficiency & enhancement opportunities	Improve efficiency of environmental and social delivery

> Sustainability in action: in 2024 over four tonnes of insulation were removed to enable safety critical inspections to be conducted on Glen Lyon. Two tonnes have been replaced with reusable insulation reducing waste going to landfill in the future. A further 40% of current insulation has been identified as no longer required. It is estimated that over 750 fewer pallets of insulation will be required to be shipped offshore for the next inspection campaign.

Unpermitted releases

bp seeks to avoid unpermitted releases to the environment. Releases are monitored, recorded, and investigated, with the intention of preventing reoccurrences. All releases are reported to the regulator.

In 2024, we reported 49 unplanned releases from offshore operations in the North Sea to the regulator (figure 1). 22 were chemical and 27 were hydrocarbon releases, with a total mass of 2.4 tonnes released to the marine environment. Although an increase in the number of chemical releases has been observed, the total quantity of both oil and chemicals released to the marine environment has decreased when compared to the previous year.

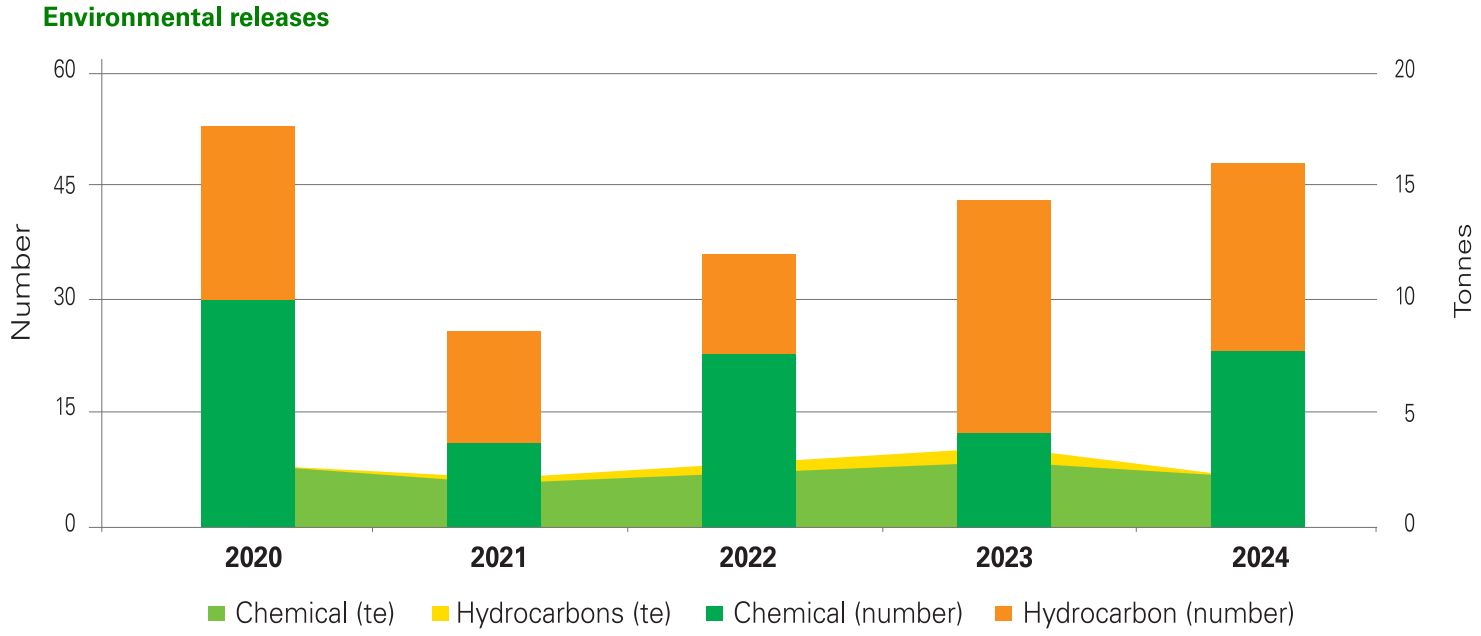


Figure 1: Total number of unpermitted releases between 2020 and 2024.

Atmospheric emissions

Atmospheric emissions occur in operations, mainly through combustion of fuel gas to generate power and through flaring and venting. They are tracked and reported as per regulatory and internal requirements. We work to manage our emissions to air principally by focusing on plant reliability, energy efficiency and the use of technology, such as flare gas recovery systems.

Net Zero Operations

bp's aim is to reach net zero by 2050 or sooner, on a CO_2e basis, for Scope 1 and 2 emissions within bp's operational control including by maintaining 'near-zero' methane intensity across our operated, producing assets, enabled by supportive government policies.

The bp North Sea region ended 2024 with an overall 29% reduction in those emissions against our 2019 baseline (figure 2). A 1% decrease in bp North Sea's total Greenhouse Gas (GHG) emissions was reported in 2024 when compared to the previous year.

Greenhouse gas emissions

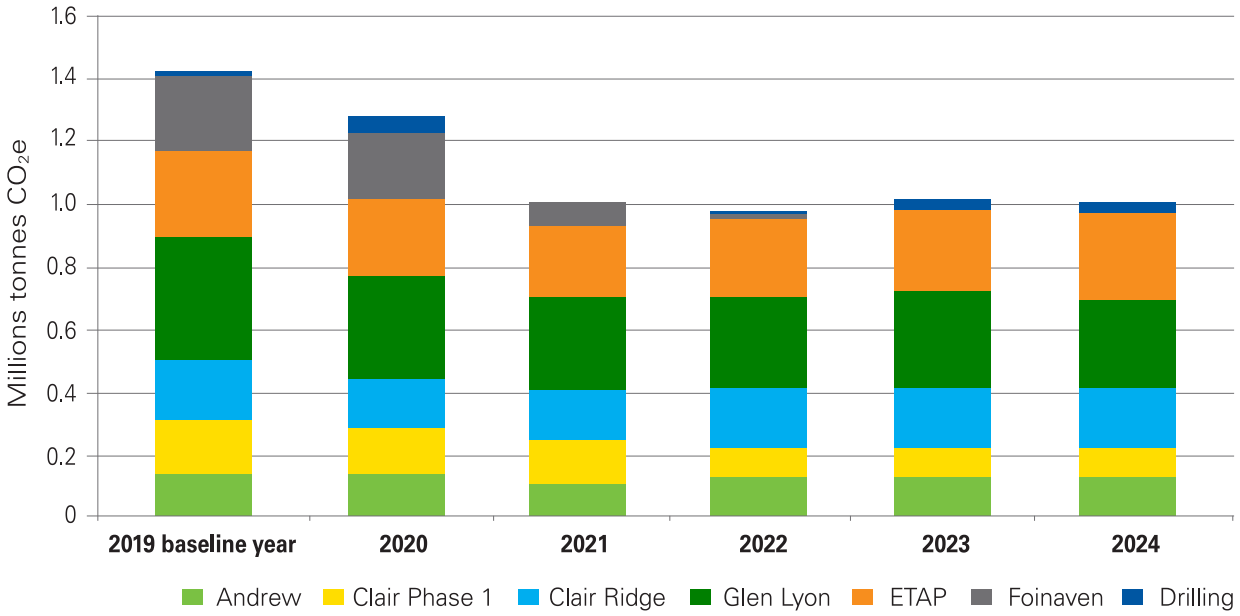


Figure 2: Total greenhouse gas emissions between 2019 and 2024.

[1] GHG emissions are reported in CO_2 equivalent (CO_2e) which is calculated as the sum of CO_2 emissions and methane emissions based on their relative global warming potential.

[2] GHG emissions intensity is calculated as a ratio of the GHG emissions (tonnes) divided by the production output (thousands boe).

Flaring

The option to flare gas from offshore installations is essential for safety reasons. bp seeks to minimize flaring from operations to reduce emissions, maximize gas for export and comply with consented flaring limits.

In 2023, less than 32,000 tonnes of gas was routed to flare (figure 4) in our North Sea operations, a 77% decrease from our North Sea 2019 baseline. This reduction has been achieved by the delivery of flare gas and vapour recovery projects, increasing compression train reliability, well temperature reduction and optimizing shut down / start up processes.

However, an increase in total flaring was observed when compared to the previous two years due to:

- **Andrew**: unplanned process upsets and adverse weather, where additional gas is sent to flare to reduce the likelihood of flare being extinguished in high winds. Remedial work involved replacement of flare pilots and installation of windshields. This has resulted in less cold flaring events and associated methane emissions, and reduced flaring in high winds.

- **Clair Ridge**: the flare gas recovery section of the vapour recovery unit (VRU), was taken offline due to a new identified integrity risk in export pipework. Work is progressing to resolve the issue.

Total production gas flared

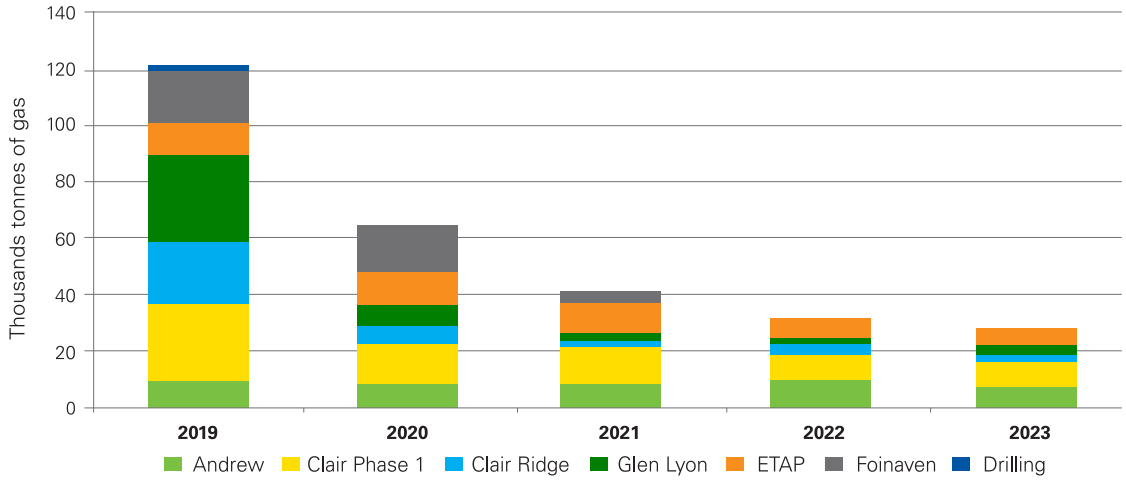


Figure 3: Total production gas flared between 2020 and 2024.

> A control room technician questioned the start-up process for two wells on ETAP and an associated increase in flaring. As a result, the flow assurance team identified an improvement to the start-up process, leading to a reduction of 500 tonnes of CO_2e in 2024

Greenhouse gas intensity

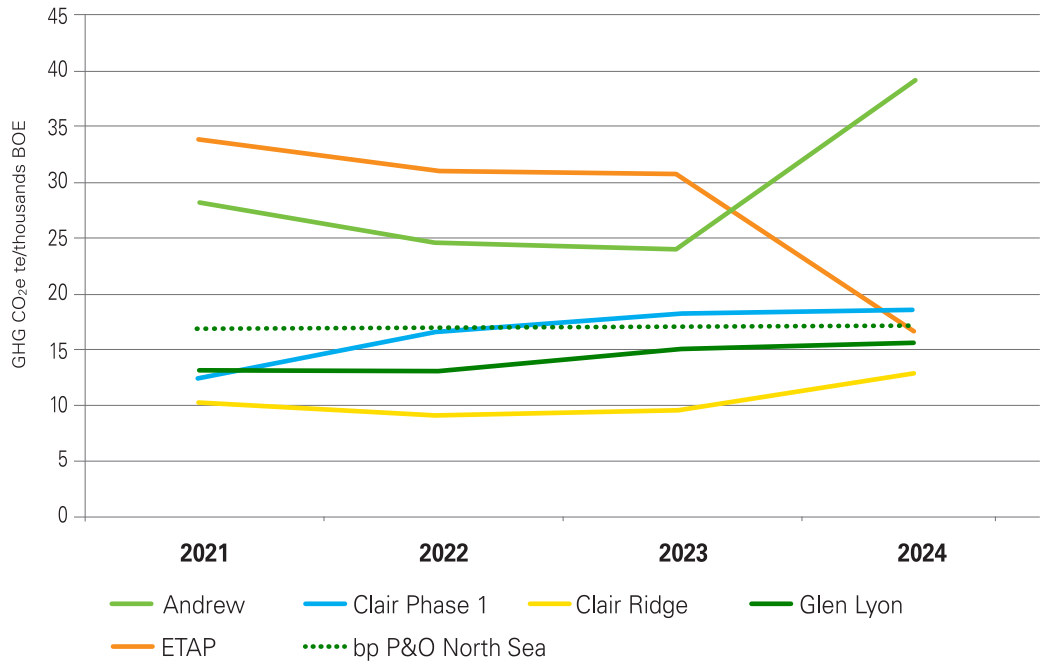


Figure 4: GHG intensity (tonnes of CO_2 equivalent per 1,000 boe) between 2021 and 2024.

> bp has retained the Oil & Gas Methane Partnership (OGMP) Gold Standard Status from the United Nations Environmental Programme (UNEP) in recognition of efforts in methane measurement and reduction from our assets.

Methane

Common sources of methane emissions in oil and gas operations are power generation, fugitive emissions[1], venting[2] and un-combusted flared gas. As an industry, methane emissions have historically been calculated and reported as opposed to direct measurements.

2024 was the first year we collected real-time methane emissions data, which has shown us that methane emissions are generally trending lower across our operations than reported using the Environmental Emissions Monitoring System methodology. We are currently analysing the results prior to proposing their use for regulatory reporting.

We continued to undertake our planned drone methane surveys across our North Sea assets to validate reported emissions. Data from the surveys provides total site-level emissions and is compared to our source-level measurements to verify that all material methane sources have been accounted for in the measurements and calculations.

Greenhouse Gas Emissions Intensity

Greenhouse Gas (GHG) emissions intensity[3] overall performance in the North Sea is provided in figure 4. The increase in intensity on Andrew was associated with a reduction in uptime and an increase in flared gas during the reporting period, whilst the decrease on ETAP was associated with new production wells from the Seagull field.

[1] Fugitive emissions typically occur at very low activity levels but carry a much higher emissions factor compared, for example, to fuel or flare gas.

[2] Venting refers to the routing of hydrocarbon gas to an unignited flare tip (also called cold venting) or direct escape to atmosphere from process equipment (i.e. from storage tanks).

[3] GHG emissions intensity is calculated as a ratio of the GHG emissions (tonnes) divided by the production output (thousands boe).

Carbon performance management

bp has a carbon performance management plan in place to support progress towards net zero operations. It is used to support decision making related to GHG emissions, identify areas for improvement and drive alignment on GHG emissions as part of daily production management. This comprises four key processes:

1. **Emissions reduction hopper**
2. **Installed emissions capacity**
3. **Emissions forecasting**
3. **Carbon bridge**

Emissions Reduction hopper

Each asset owns an emissions reduction hopper containing potential opportunities for permanent GHG emissions reduction. The opportunities are screened and those that are viable are progressed. Over the last five years, over 150,000 tonnes of CO_2e have been removed from our North Sea operations through numerous opportunities, including reduction in spinning reserve, plant optimization and use of vapour recovery systems.

Installed emissions capacity (IEC)

IEC is the lowest agreed rate of absolute emissions achievable using the resources currently available to the production installation, when under optimum operating conditions. The IEC approach sets carbon dioxide (CO2) goals derived from power demand for the planned production delivery, whilst emissions from flare and venting are calculated using the minimum design volumes. Assets measure their actual emissions against IEC to understand reasons associated with higher emissions than expected and address this where practical.

Forecasting

The forecasting of GHG emissions uses a bottom-up approach which provides an accurate and standardized process across our operated North Sea portfolio. By understanding energy required and flaring activity to meet associated production plans, each facility can build a more accurate forecast of emissions.

Carbon bridge

A carbon bridge shows overall carbon performance for our bp North Sea operations, trending actual emissions versus forecast. The bridge format is used to provide a tool to guide discussions on carbon management and help inform decision-makers.

Produced water

Produced water is a by-product of oil and gas production offshore. During processing, hydrocarbons are separated for export, and the water, containing trace amounts of hydrocarbons, is either reinjected into the reservoir or discharged to sea in accordance with the installation's design and oil discharge permit.

bp aims to minimize its oil discharge to the environment by reinjecting water into the reservoirs whenever practical. 82% of the total water produced by our North Sea installations during 2024 was reinjected into the reservoirs (figure 5).

Produced water

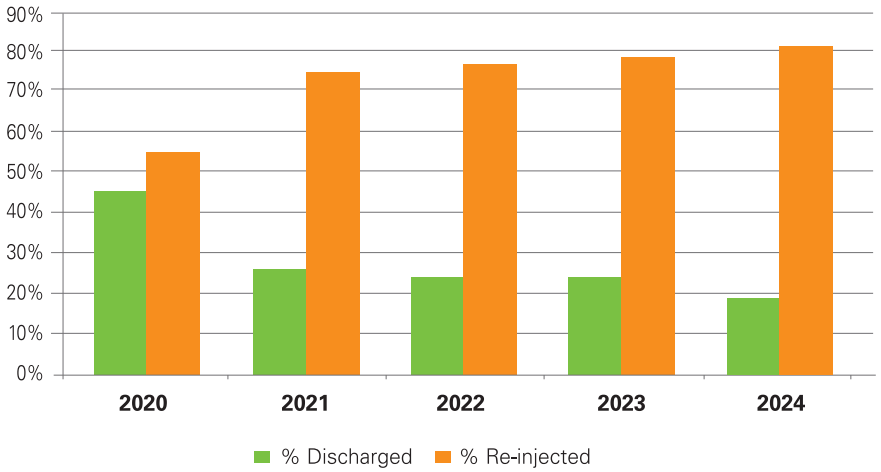


Figure 5: Total produced water reinjected and discharged ratio between 2020 and 2024.

Our North Sea installations' annual average concentration of oil discharged with produced water remained below our permitted limit of 30 milligrams per litre during 2024, as shown in figure 6. ETAP reinjects 100% of its produced water so is not included in figure 6.

Average oil concentration in produced water

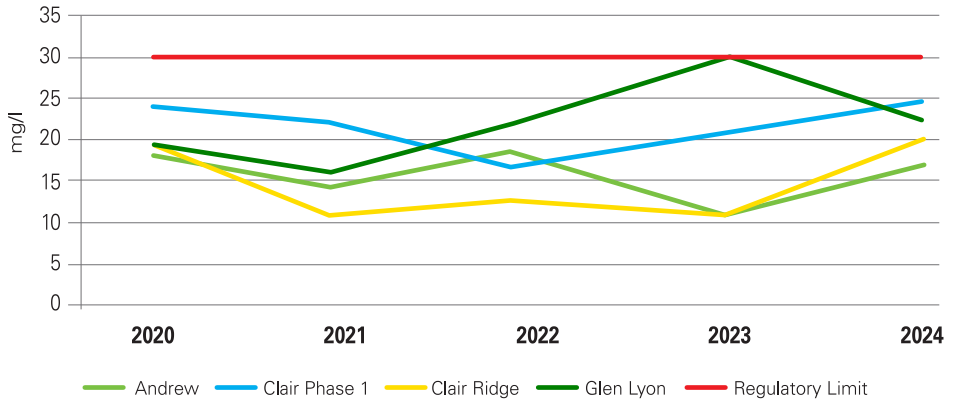


Figure 6: Annual average oil in produced water discharge between 2020 and 2023

Although the average concentration of oil dispersed in produced water slightly increased for three out of four discharging installations in 2024, the annual weighted average remained below 18 mg/l (figure 6). The increase in oil dispersed in produced water on Andrew was attributed to sub-optimal performance of its HP hydrocyclone, which also impacted the total quantity of oil discharged with produced water (figure 7).

Total oil discharged in Produced water

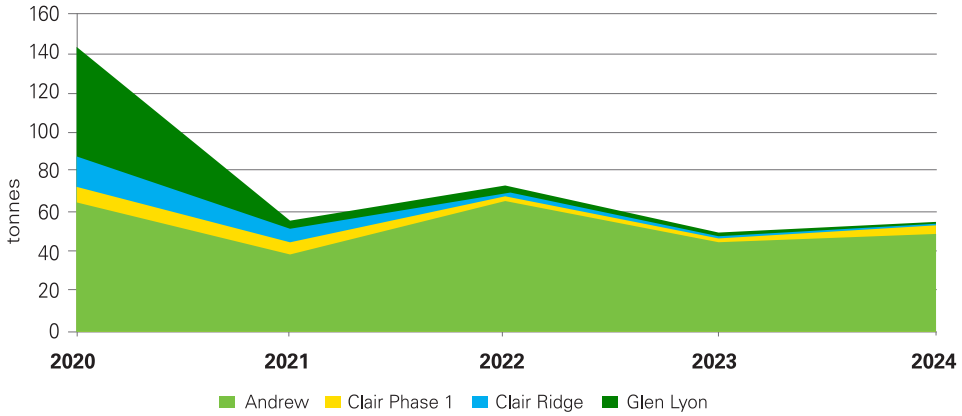


Figure 7: Total oil discharged in produced water between 2020 and 2023.

Chemicals

Chemicals are used during offshore operations to improve the flow of fluids, facilitate the separation of materials, prevent degradation and fouling of equipment and within control systems. Subsea operations also use chemicals for flushing of pipelines and subsea infrastructure to remove hydrocarbons before maintenance and inspection activities. Their usage and discharge are permitted by the regulator (figure 8).

Of the chemicals discharged from bp production and subsea operations during 2024, 64% were PLONOR (posing little or no risk to the marine environment) and 18% were flagged with a substitution warning (SUB[4]), as defined by the regulator. Glen Lyon chemical discharges are higher than our other installations due to the nature of the subsea tiebacks and the large volumes of produced fluids requiring treatment.

bp continues to work with our chemical suppliers to assess further reduction in the use and discharge of chemicals that carry a substitution warning. This has resulted in the removal of three chemicals with substitution warnings from our production chemical permits in 2024.

Production and subseas chemicals used

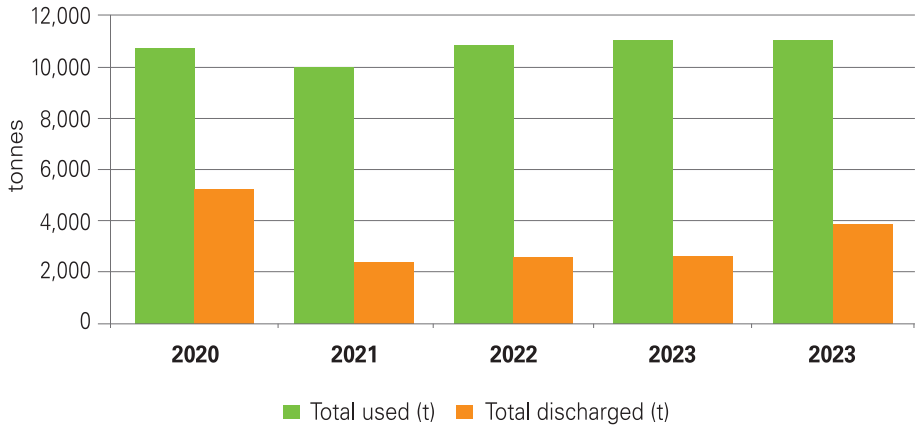


Figure 8: Total permitted production and subsea chemical use and discharge between 2020 and 2024.

Chemicals discharged

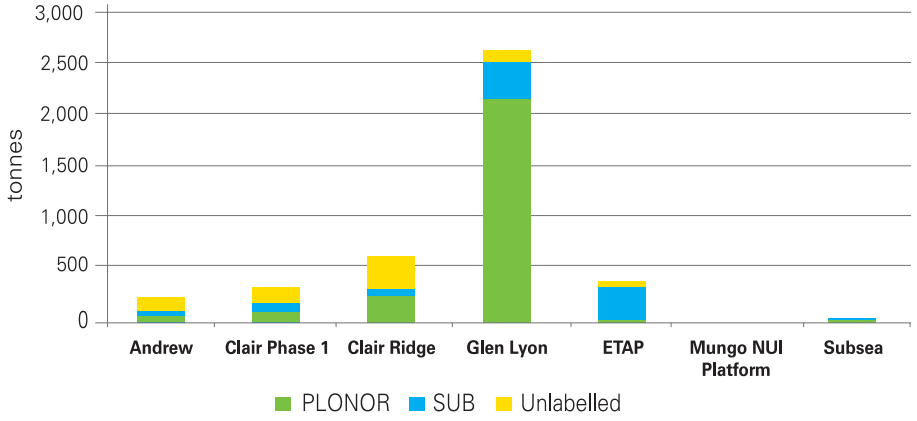


Figure 9: Total permitted production chemicals discharged during 2024.

[4] Offshore operations in the UK are required to comply with the OSPAR harmonized pre-screening scheme and REACH recommendation to replace chemical substances identified as candidates for substitution (SUB). Substances are flagged with a substitution warning based on their toxicity, bioaccumulation, and biodegradability.

Operational waste

We adopt a lifecycle approach to waste management, to avoid and reduce waste from our operations and reuse materials. We continued our efforts to divert as much waste as practical from disposal to recovery or recycling.

Waste generated by offshore production installations is transported to shore for treatment and disposal. In 2024, 68% of our offshore waste was either reused, recycled, or used as feedstock to generate energy, while only 3% was directed to landfill (refer to figure 10). Details on drilling waste management are provided in Section 9.

The large quantity of treated waste is attributed to waste liquids and sludges, including those fluids generated from tank washing activities. This waste is sent for treatment where the material is physically and chemically treated to remove contamination and then discharged to sewers under consent.

> bp continues to participate in the Zero Waste to Landfill initiative were Waste to Energy is the preferred disposal route to general waste. Only hoses and bulk powders are routinely sent to landfill as an alternative disposal route is not currently available.

Operational waste (tonnes)

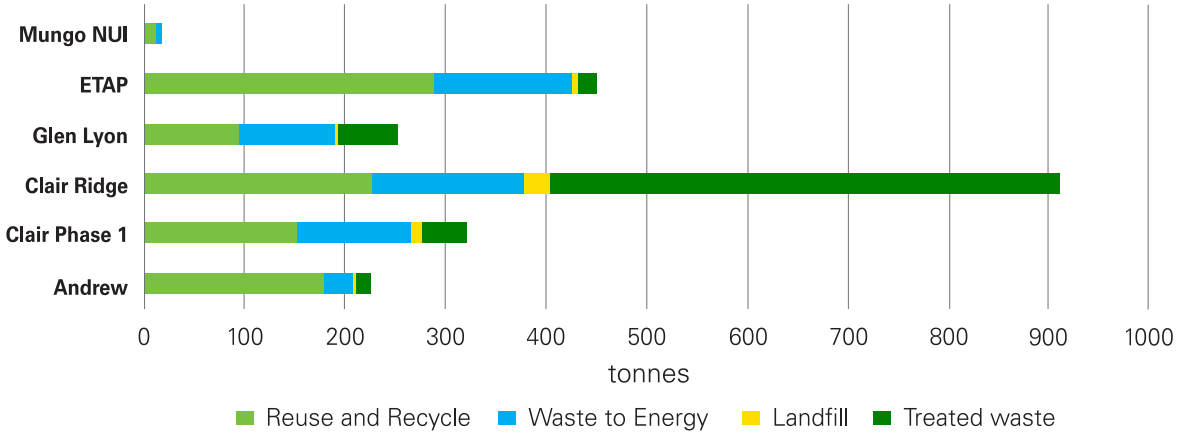


Figure 10: Total waste reported during 2024.

Special waste (tonnes/year)

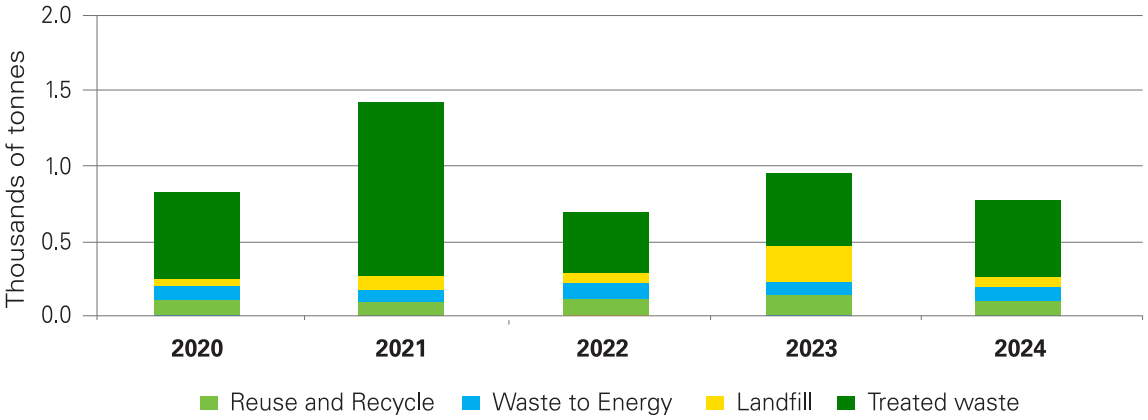


Figure 11: Special waste reported between 2020 and 2024.

Special waste includes paints, hazardous chemicals, oils, batteries, aerosols, heavy metals, wax from pigging operations, and oily waste. Non-special waste includes segregated recyclables (paper, packaging, wood), general waste (accommodation waste), and uncontaminated scrap metals. Figures 11 and 12 show the quantities of special and non-special waste generated by bp operated installations.

General waste (tonnes/year)

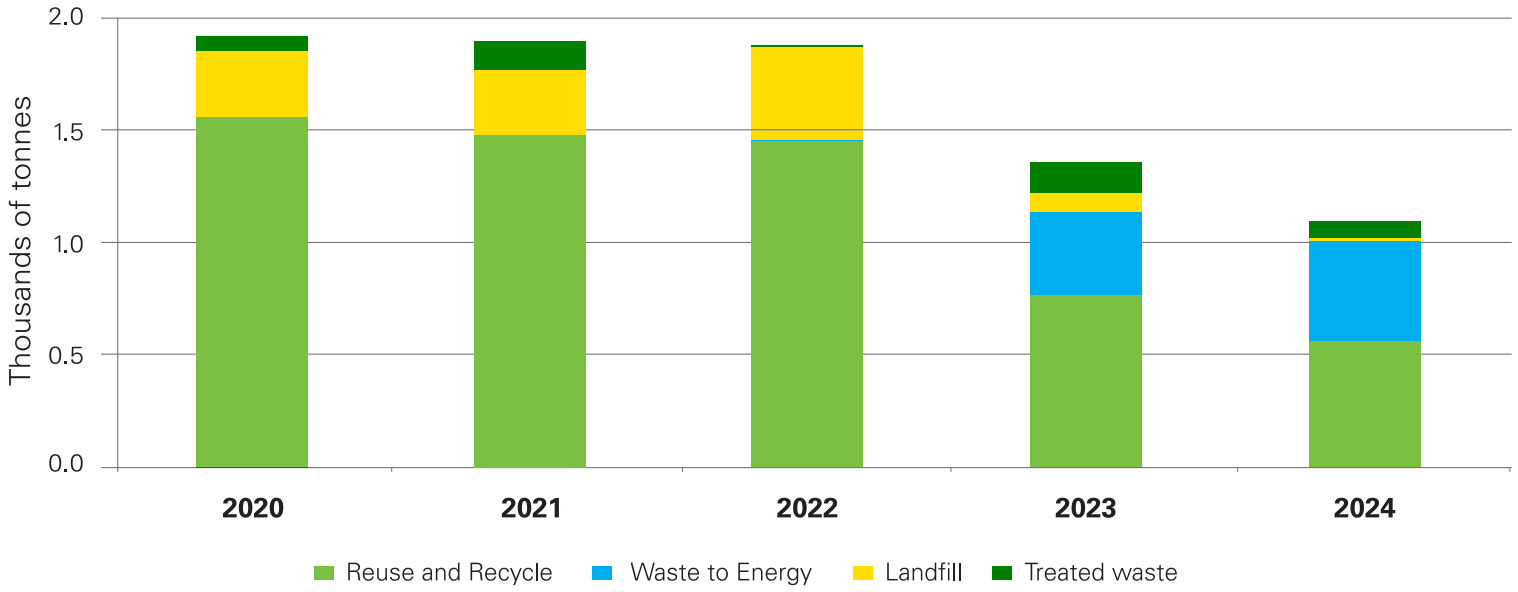


Figure 12: General waste reported between 2020 and 2024.

> ETAP has established a charity clothes donation point, where good quality clothing is collected offshore and donated to a local charity in Aberdeen. This initiative aims to reduce waste going to landfill while supporting the local communities in which we operate. Over 215 kg of high-quality clothing has been saved from landfill and donated to those in need.

Drilling and well intervention summary

Chemicals usage and discharge from drilling, plug and abandonment and well intervention operations are provided in figure 13. Of the total chemicals discharged, 98% by weight were classed as PLONOR.

Cuttings produced when using water-based muds were discharged to the marine environment as permitted by the regulator, whilst cuttings from sections drilled with oil-based muds were usually reinjected or returned to shore for treatment.

In 2024 we introduced thermal treatment for cuttings contaminated with oil-based mud offshore, which enables the separation of the oil phase from the solids and enabling the discharge of clean cuttings to sea, reducing the quantity of cuttings sent to landfill.

Drilling cuttings and chemicals

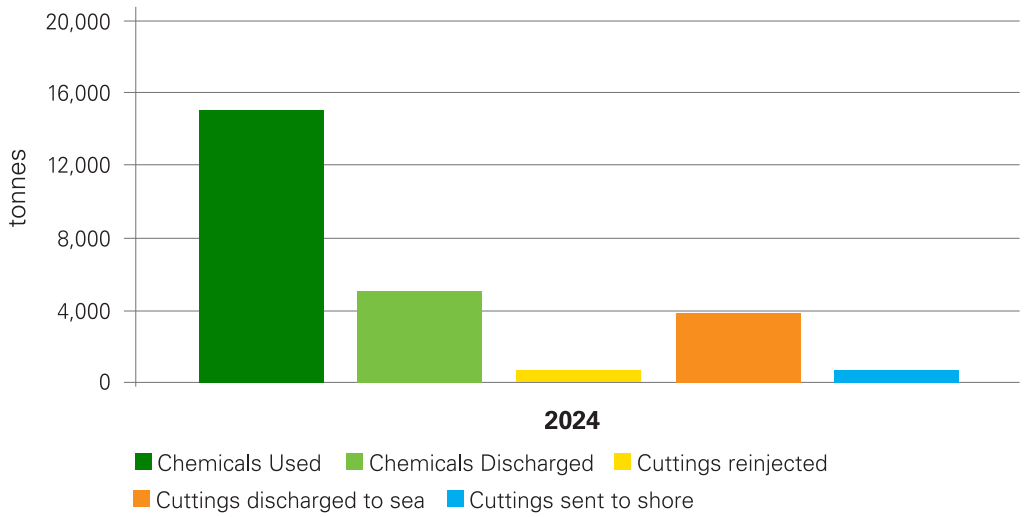


Figure 13: Drill cuttings (reinjected, discharged and disposed to landfill) and drilling chemicals used and discharged in 2024.

MODU waste

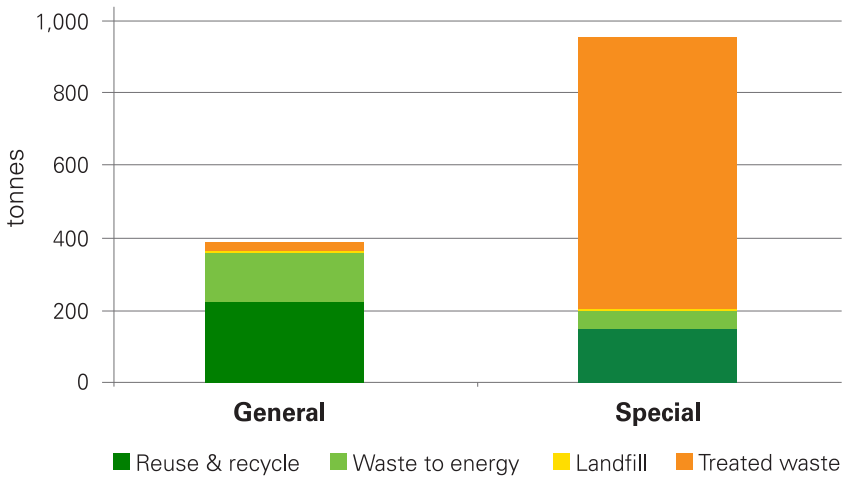


Figure 14: Total waste from MODU operations reported in 2024.

bp North Sea UK HSE Policy

bp's commitment to **health, safety** and **environmental** (HSE) performance

Our HSE goals are simply stated:

no accidents, no harm to people and **no damage to the environment.**

We strive to be a safety leader in our industry, a world-class operator, a good corporate citizen and a great employer. Nothing is more important to us than the health, safety and security of our workforce and the communities in which we operate, and behaving responsibly towards our shared environment. We must be vigilant, disciplined and always looking out for one another.

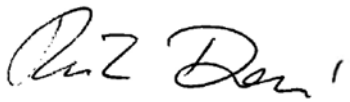
We are committed to:

- complying with applicable laws and company policies and procedures
- systematically managing our operating activities and risks
- reporting our HSE performance
- learning from internal and external HSE events

In the North Sea our mission is to achieve zero life changing injuries, zero serious process safety events and have the lowest possible environmental impact, emissions, and methane intensity. We therefore expect all staff and contractors to stop work when there is an unsafe act or condition, non-compliance with legislation or when unable to meet bp requirements.

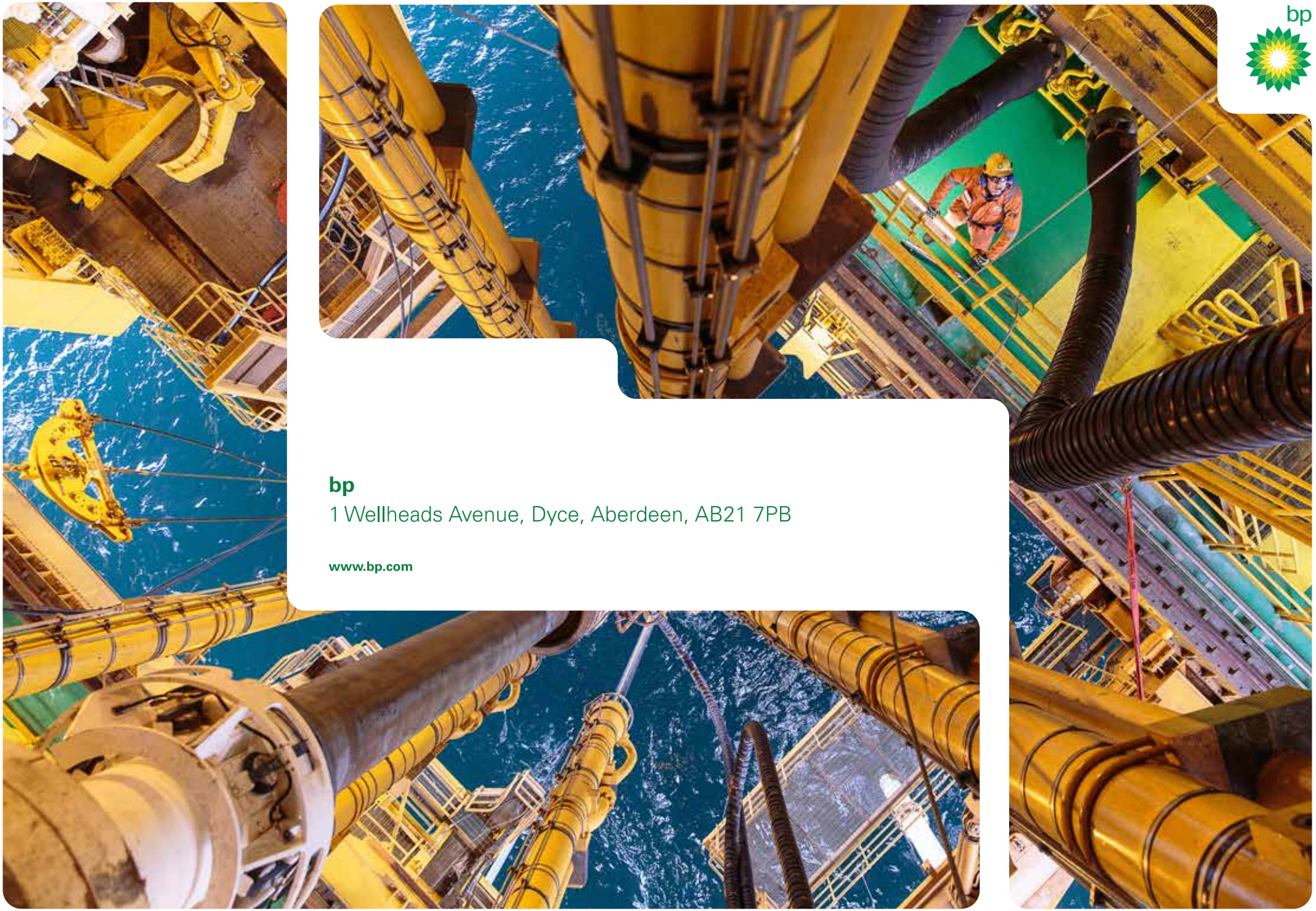
Everyone who works for bp has a part to play in meeting our HSE commitment. Our Safety Leadership Principles are an important guide on how we can achieve this. Together we:

1. Genuinely care about each other
2. Will not compromise our focus on safety
3. Encourage and recognize speak up
4. Understand how work actually happens
5. Learn why mistakes occur and respond supportively



Doris Reiter
SVP North Sea

19 October 2022 (updated 3 yearly)



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