

Behaving Responsibly Towards the Environment



BEHAVING RESPONSIBLY TOWARDS THE ENVIRONMENT

#6 We take a precautionary approach to our effect on the environment.

#7 We strive to prevent and minimise our impact on the environment.

Environmental protection is a key operational priority for Cairn. We take a precautionary approach, with rigorous risk assessments and robust working methods at every stage of a project. These helps us to minimise any adverse impact on the environments in which we work, without affecting our commitment to safety.

This year, the following environment issues were identified as being of high materiality: **20 23**

Materiality matrix see page 52.

#6 We take a precautionary approach to our effect on the environment



Greenhouse Gas (GHG) Emissions

GHG emissions from our activities arise mainly from the combustion of fuels such as marine diesel by rigs and transport vessels and form a relatively modest part of our operational footprint. We monitor and manage the emissions from our assets on an 'operational control' basis and disclose them in accordance with industry requirements and standards. Some of the locations we work in, such as the UK, are heavily regulated so complying with national regulators' requirements is an important aspect.

Around 95% of the GHG emissions associated with our operations occur in the supply chain, which means our influence over carbon management and reporting is limited largely to the selection of contractors, efficient operations and the use of modern equipment. For example, one vessel contracted for our marine operations in Norway was powered by liquified natural gas (LNG), although the availability of such alternative fuels varies with location.

In absolute terms, our annual GHG emissions vary with the duration and nature of the projects during the year, but most arise from exploration and appraisal activities. The selection of major equipment and contractors is influenced by safety considerations, technical well requirements, the distance between operations and support bases, and local environmental and meteorological conditions.

2019 was a year of high activity for Cairn. We had three concurrent drilling campaigns during the year, with one operated well in the UK, two in Norway and two in Mexico, in addition to three non-operated wells. By contrast, in 2018, our operations involved only one well using a rig with relatively low energy demand.

In line with the increase in activities in 2019 our total GHG emissions increased to 43,496 tonnes CO₂e. Normalised emissions also increased to 42.74 tonnes CO₂e per 1,000 hours worked.

Higher than expected emissions and normalised emissions occurred overall due to the need to drill an unplanned side-track as a result of geological challenges, while maintaining safe operations in our Bitol-1 Well in Mexico. In addition, normalised emissions increased due to weather delays affecting access to our operational supply and aviation bases in Mexico causing greater standby time than anticipated.

Acknowledging the importance placed on climate change risks by our investors, we have assessed our reporting against the Task Force on Climate-Related Financial Disclosures (TCFD) – see A Responsible Approach on page 10.

Read more: **Emerging Risks on P38.**

Air Emissions, Discharges and Waste

Informed by regulatory compliance and industry best practice, we monitor and report on other air emissions, discharges to the marine environment and waste in connection with our activities.

For more information please see our **Corporate Responsibility Report: www.cairnenergy.com/working-responsibly**

Energy Saving Opportunity Scheme (ESOS) Regulations 2014

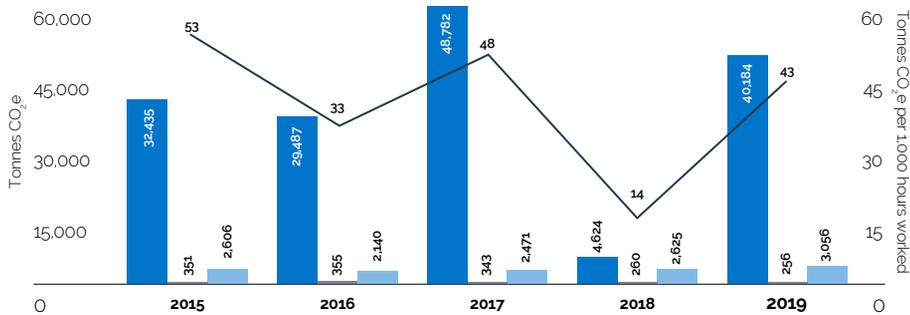
The ESOS Regulations 2014 require large UK organisations to undertake comprehensive assessments of their energy use and energy efficiency opportunities at least once every four years. We qualified under these regulations for the first time this year and made our first submission under ESOS Phase II in November 2019.

Full compliance with these regulations will help us to identify and benefit from reduced energy use, lower carbon emissions and cost savings.



Total and normalised GHG emissions (Scopes 1, 2 and 3)

43,496



- Scope 1¹, tonnes CO₂e
- Scope 2² (location-based), tonnes CO₂e
- Scope 3³, tonnes CO₂e
- Scope 1, 2 (location-based) and 3 normalised, tonnes CO₂e per 1,000 hours worked

Notes

We calculate our GHG emissions in accordance with the GHG Protocol Corporate Accounting and Reporting Standard. We use the published 100-year Global Warming Potentials (GWPs) for CO₂, CH₄ and N₂O from the Intergovernmental Panel on Climate Change (IPCC) – with the Fourth Assessment Report (AR4) values applied when using Defra 2018/2019 emission factors (they are already integrated), and the Fifth Assessment Report (AR5) values applied when using other emission factors.

1. Our Scope 1 (direct) GHG emissions arise from fuel combustion (primarily during offshore rig, marine vessel and aircraft operations), flaring during well testing and incineration of waste (a very small amount). For calculating these emissions we use emission factors from the API Compendium 2009 (fuel combustion), EEMS 2008 (flaring) and the GHG Protocol 2017 (waste incineration).
2. We report Scope 2 (purchased electricity) GHG emissions in line with GHG Protocol Scope 2 Guidance, i.e. in two ways: according to a location-based method and a market-based method. (Transmission and distribution losses are excluded.) For the location-based method, we use emission factors from the IEA (International Energy Agency) (updated to IEA 2018 in 2018). These are grid average emission factors for each country. For district heating and cooling, we use location-based emission factors from Defra (updated to Defra 2019 in 2019). For the market-based method, we use emission factors, where available, in the following order of preference:
 - Supplier-specific emission factors – obtained from Cairn's offices' electricity suppliers;
 - Residual mix emission factors – obtained from the Association of Issuing Bodies (AIB) document 'European Residual Mixes 2017'; and
 - Location-based emission factors. These are the same IEA and Defra emission factors that we use for calculating location-based emissions.

We have provided location-based Scope 2 figures in this report. Our market-based Scope 2 figures, and further details about our GHG emissions data and calculations, are available in our Data Appendix and on our website.

3. We report Scope 3 GHG emissions from two sources:
 - business travel (business travel well-to-tank emissions are excluded); and
 - electricity transmission and distribution losses.
 For calculating Scope 3 (business travel) GHG emissions, we use the Defra methodology, including its recommendation to include an uplift for the influence of radiative forcing in air travel emissions. We updated to Defra 2019 emission factors in 2019 (see www.ukconversionfactorscarbonsmart.co.uk/). For calculating Scope 3 (electricity transmission and distribution losses) GHG emissions, we use Defra 2019 emission factors.
4. Limited assurance of our 2019 GHG data (Scopes 1, 2 and 3, and normalised) has been provided independently by ITP Energised which, within the scope of the limited assurance engagement, has found that the GHG emissions reported are materially correct and a fair representation of available information. A full assurance statement detailing the verification undertaken and its limitations is available on our website.

