

GHG performance from operated assets

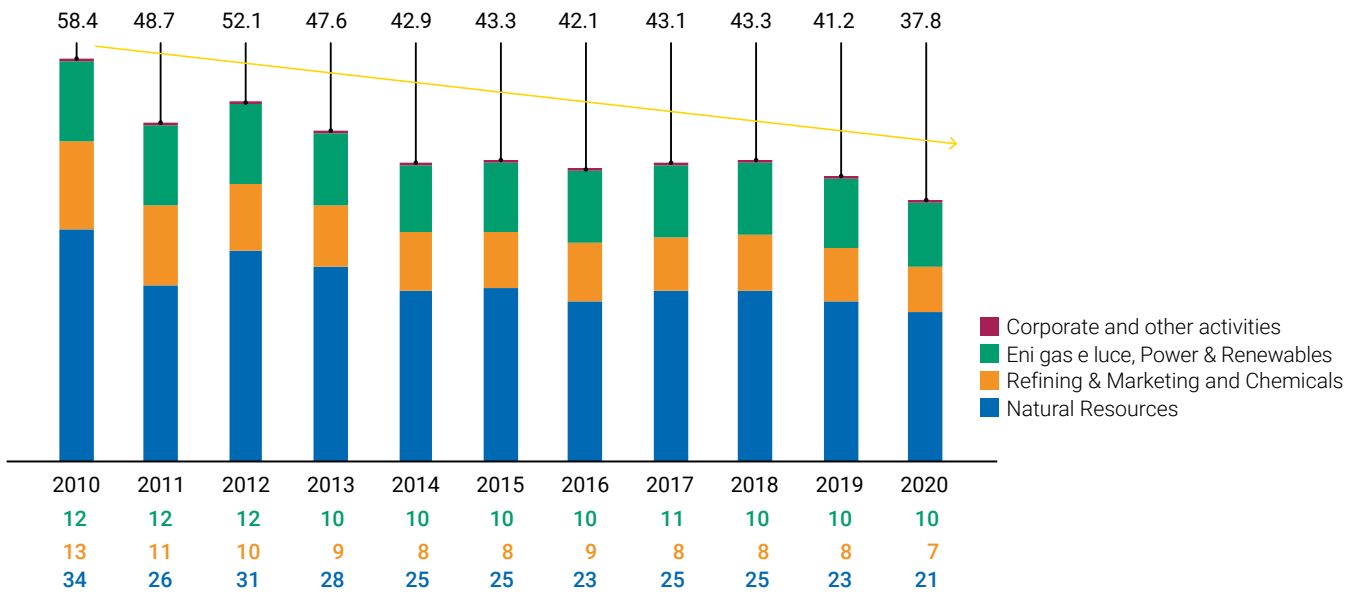
With specific reference to the short-term decarbonisation objectives and related indicators, defined for operated assets and accounted for at 100%, the following paragraphs provide a summary of the results achieved in 2020 and the state of progress compared to the targets. Scope 1 and Scope 2 GHG emissions are accounted according to the operator criteria (activities carried out by Eni globally accounted for on a 100% basis), in all relevant businesses. Since 2019, these emissions are subject to a “reasonable assurance” verification by the auditing firm.

Direct GHG emissions in 2020 are down 8% compared to 2019 and 35% compared to 2010

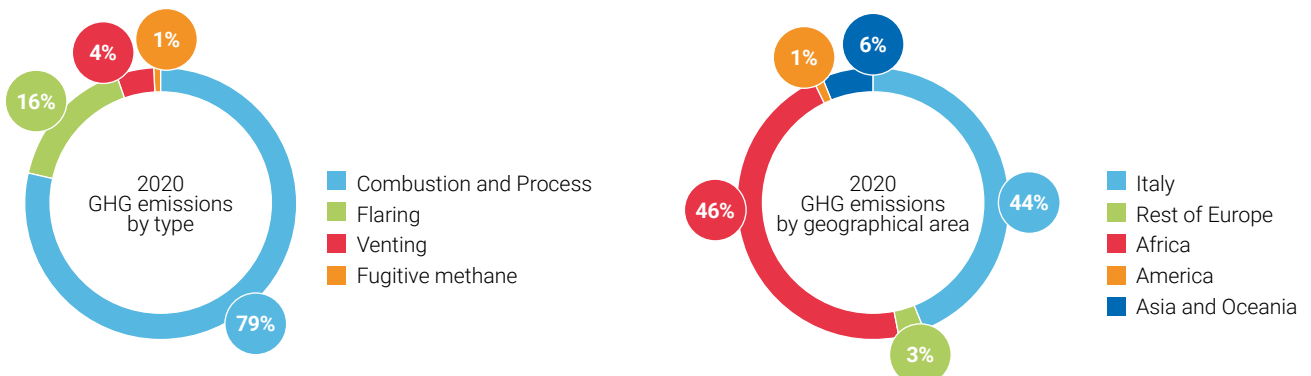
SCOPE 1 GHG EMISSIONS

Direct GHG emissions in 2020 are down 8% compared to 2019 and 35% compared to 2010. This reduction is mainly due to the decline in activities related to the health emergency, in the upstream, power and refining sectors. Approximately 50% of GHG emissions are subject to carbon pricing schemes, mainly the European Emission Trading Scheme, which covers all major mid-downstream facilities, and 56% of direct emissions come from Hydrocarbon Exploration & Production activities. The largest emission contribution is from combustion and process, linked to the energy consumption of production assets. GHG emissions are mainly linked to activities in Italy and Africa. The remaining amounts are located in Asia, Oceania, Rest of Europe and America.

Eni direct GHG emissions (MtCO₂eq)

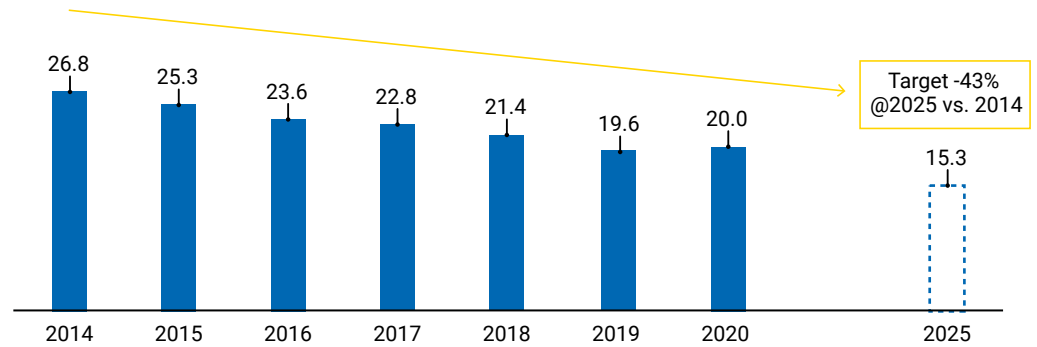


GHG direct emissions 2020 by type and geographical area



The upstream GHG intensity index, expressed as the ratio between direct emissions in tonnes of CO₂eq and hydrocarbons gross production in thousands of barrels of oil equivalent, was 20.0 tonCO₂eq/kboe in 2020. The trend of gradual improvement has been interrupted by a drop in production due largely to the health emergency, which has mainly affected some fields whose production is associated with low emission impact. The overall reduction compared to 2014 was 26%.

Upstream GHG intensity (tCO₂eq/kboe)



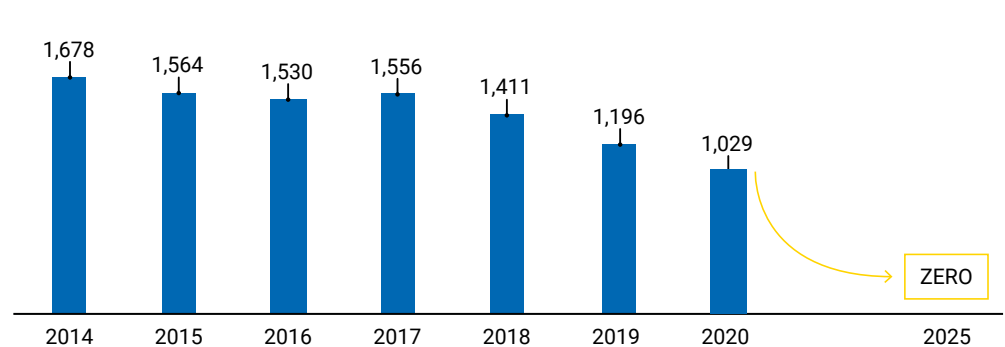
Eni remains committed to the progressive reduction of Upstream emission intensity in line with achieving the target of -43% by 2025 compared to 2014.

ZERO ROUTINE FLARING

One of the drivers for reducing the emission intensity of the upstream sector is the progressive reduction of routine flaring (so-called process flaring). As part of this, Eni joined in 2014 the “Zero Routine Flaring” initiative promoted by the Global Gas Flaring Reduction Partnership (GGFR), of the World Bank, that brings together governments, oil companies and international development organisations. The Zero Routine Flaring initiative aims to phase out process flaring by 2030. Eni, which has decided to anticipate the objectives of the initiative to 2025, is active in specific programmes for gas valorisation through the production of electricity for local populations, distribution for domestic consumption or export. Where these procedures are not possible, Eni has built facilities for natural gas re-injection in the field.

Eni has confirmed its commitment to anticipate to 2025 the “Zero Routine Flaring” objective as part of the Global Gas Flaring Reduction (GGFR) partnership promoted by the World Bank

Volumes of hydrocarbon sent to routine flaring (MSm³)

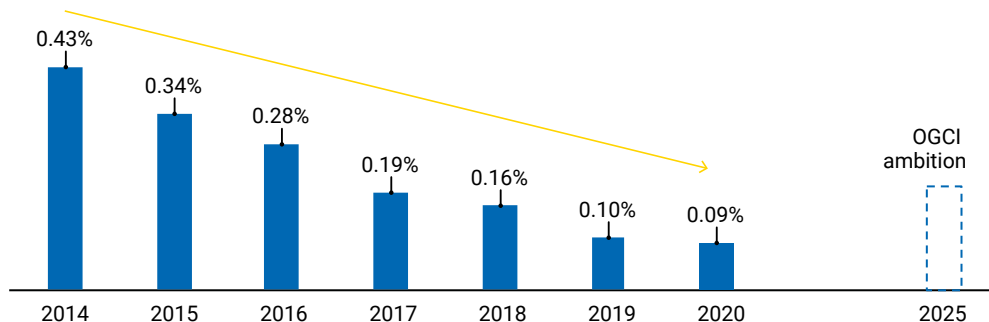


In 2020, hydrocarbon volumes sent to routine flaring, amounted to 1.03 billion Sm³, decreased by 14% compared to 2019 and by nearly 40% compared to 2014, as a result of specific flaring reduction projects (Angola) and the production drop attributable to the health emergency, which affected some fields with associated gas flaring during 2020.

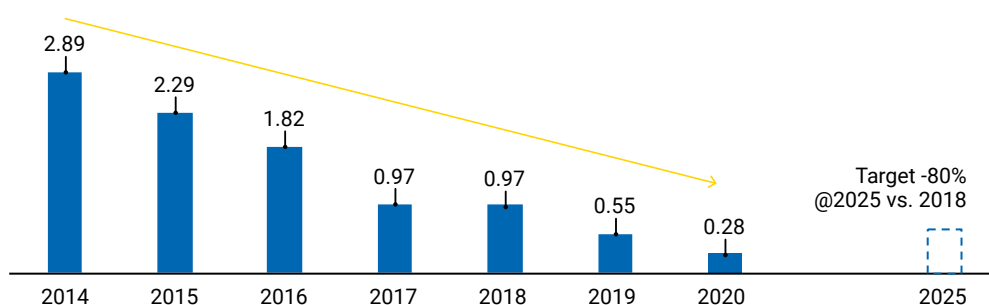
METHANE EMISSIONS

Eni continues its commitment to optimising its monitoring and reporting processes to reduce methane emissions from operated assets. Methane emissions are essentially concentrated in the upstream value chain (51 kton CH₄, equal to 92% of Eni’s total) and are due to fugitive emissions, unburnt methane from flaring and consumption and process venting. The upstream methane emissions intensity (0.09% in 2020) decreased by 16% vs. 2019. Eni contributes to the OGCI collective target of reducing the upstream methane intensity from 0.32% in 2017 to 0.25% in 2025, with an ambition of 0.20%.

Upstream methane intensity (m³CH₄/m³ gas sold)



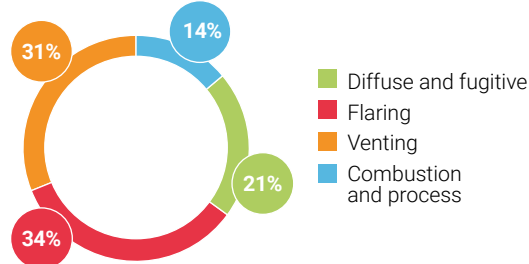
Upstream fugitive methane emissions (MtCO₂eq)



In absolute terms, Eni achieved a reduction of more than 2.61 MtCO₂eq of upstream fugitive methane emissions in 2020 vs. 2014, reaching the 80% reduction target in 2019, 6 years before the planned objective for 2025.

In 2020, upstream fugitive methane emissions were 0.28 MtCO₂eq, down by around 50% from 2019, partly as a result of production drops attributable to the health emergency. Monitoring and maintenance campaigns (Leak Detection And Repair - LDAR) continued during the year and contributed to maintaining the reduction trend. To date, 95% of the upstream operated production is covered by LDAR programmes (corresponding to about 60 sites). The overall reduction compared to 2014 was 90%, confirming achievement – as early as 2019 – of the 80% reduction target set for 2025.

CH₄ emissions by type



Fugitive emission monitoring

In 2015, Eni Upstream began progressive monitoring of its plants with the aim of identifying, quantifying and minimising fugitive emissions by implementing **Leak Detection And Repair (LDAR)** programmes. LDAR campaigns consist of detecting methane leaks in the field and scheduling appropriate maintenance work. Where possible, leaks are immediately repaired by site maintenance teams, helping to minimise fugitive emissions. A proper and frequent LDAR programme can **reduce up to 85%** of the fugitive emissions quantified by standard approaches based solely on analysis of technical documentation. The instrument most commonly used in Eni sites for LDAR programmes is the **OGI (Optical Gas Imaging)** camera, a highly specialised version of an infrared camera that can detect a gaseous compound based on its wavelength. To further improve LDAR programmes at Upstream sites, thermal imaging cameras have been purchased by the operating sites since 2020, and a training programme has begun for local teams to train them in the correct use of these instruments and the monitoring methodology, in accordance with the best international standards such as **OGMP-CCAC and EPA**, which are incorporated into the company's operating instructions. The availability of the thermal imaging camera on site ensures the possibility of more frequent monitoring, at least annually, for each site and in conjunction with maintenance activities.

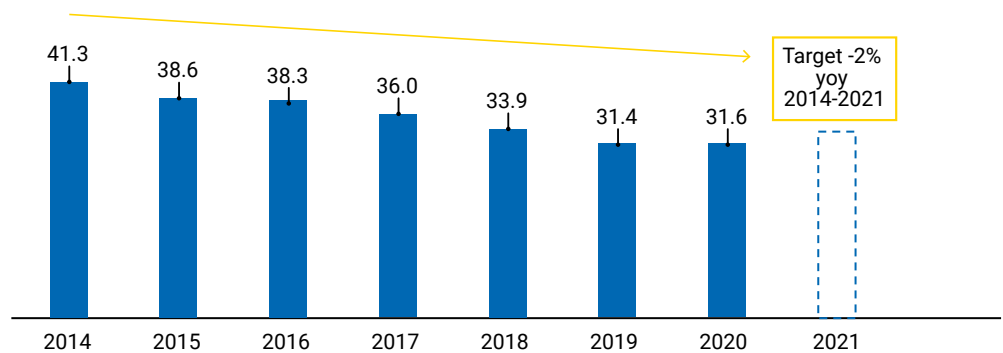
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COMMITMENT TO ENERGY EFFICIENCY

Since 2018, Eni has been monitoring the emission intensity of its industrial activities through a specific index, which expresses the intensity of GHG Scope 1 and Scope 2 emissions per unit of energy production, thus measuring their degree of efficiency in a decarbonisation context. An incremental improvement target of 2% per year was imposed on this index compared to the 2014 index value. This objective refers to the overall Eni index, maintaining an appropriate flexibility in the trends of individual businesses.

In 2020, the index was 31.6 tCO₂eq/kboe, essentially stable compared to 2019 (31.4 tCO₂eq/kboe) mainly due to the decrease in production attributable to the health emergency. This effect was partially offset by the energy efficiency projects launched or completed during the year. Although the target for reduction set for 2021 has already been achieved, Eni will continue to strive towards progressive 2% improvement over the coming years.

Carbon Efficiency Index (tCO₂eq/kboe)



In 2020 Eni went ahead with its investment plan both in projects aiming directly at increasing energy efficiency of assets and in development and revamping projects

In 2020, in fact, Eni went ahead with its investment plan both in projects aiming directly at increasing energy efficiency of assets (€10M) and in development and revamping projects with effects on the energy performance of operations. When fully operational, the interventions carried out during the year will allow fuel savings of 287 ktoe/year (mostly upstream), with a benefit in terms of emissions reduction of approximately 0.7 million tonnes of CO₂eq. The commitment to improving energy performance is also demonstrated by the inclusion in Eni's HSE regulatory system of management tools coordinated with the ISO 50001 certification schemes. The programme of energy assessments aimed at identifying opportunities for improvement in the upstream area has been complemented since the end of 2019 by a gap analysis programme for the deployment of energy management systems, which involved some of the most energy intensive assets not yet certified in 2020, and will continue in 2021. In the other businesses, whose most important sites in terms of energy consumption have already been certified for some time, certification was transitioned to the new revision of the ISO 50001:2018 standard during 2020.



Upstream energy efficiency

Energy efficiency interventions concerned the revamping of compressors, the optimization of equipment operating condition and production networks, thermal integration between neighbouring plants and importing electricity from the national grid

The improvement in energy performance in the upstream business was made possible by revamping compressors, optimising equipment operating conditions, optimising production networks, thermal integration between neighbouring plants and importing electricity from the national grid. The initiatives launched during 2020 included the project for the new electrical compressor station at the Rubicone gas treatment plant (DICS, Italy). The project involved shutting down the compressor system on the Cervia K offshore platform and installing two reconditioned electric reciprocating compressors recovered from the Candela power plant at the Rubicone onshore power plant. The two compressors use electricity drawn from the national grid. When fully operational, the project is expected to deliver annual energy savings of around 8000 toe, corresponding to annual net emission savings (Scope 1+2) of around 20 kton.