SBM OFFSHORE

ENERGY. COMMITTED.

ANNUAL REPORT 2021

2.1.7 EMISSIONS

MANAGEMENT APPROACH

The topic of emissions is dealt with in various parts of the organization as explained under the HSSE and Environmental Reporting approaches in sections 2.1.4, 5.2.1 and 5.2.2. SBM Offshore is reporting to CDP and considering IOGP statistics to ensure the right benchmarking.

SBM Offshore's long-term emission reduction ambitions are explained in section 1.4.3. In 2021, SBM Offshore set targets to reduce flare emissions on its activities, develop low- and non-carbon solutions, to have zero oil spills and to reduce air-travel-related emissions. SBM Offshore added scope to its disclosures and further aligned scoping to the GHG-Protocol. This results in the reclassification of the majority of emissions formerly reported under Scope 1 to Scope 3 (see section 5.2.2 for detail).

Furthermore, SBM Offshore strives to outperform industry benchmarks on the following indicators:

- GHG emissions[2], gas flare[3], energy consumption[4].
- Oil in produced water[5], oil spill per production[6].

[2] 138 tonnes of GHG emissions per thousand tonnes of hydrocarbon produced as reported by companies participating in the 2019 IOGP environmental performance indicators, Report p.16

[3] 10.6 tonnes of gas flared per thousand tonnes of hydrocarbon produced as reported by companies participating in the 2019 IOGP environmental performance indicators, Report p.26

The efforts in emissions management build upon years of action taken to bring emissions down structurally. For example, gas flaring intensity in 2021 is 28% lower than in 2017. Through this approach, SBM Offshore is mitigating risks in the light of climate change and social license to operate, as mentioned in section 1.4.2.

SBM Offshore focuses on GHG emissions while also addressing other emissions – such as emissions to water and non-GHG emissions. Further information can be found in sections 2.2 and 5.3.

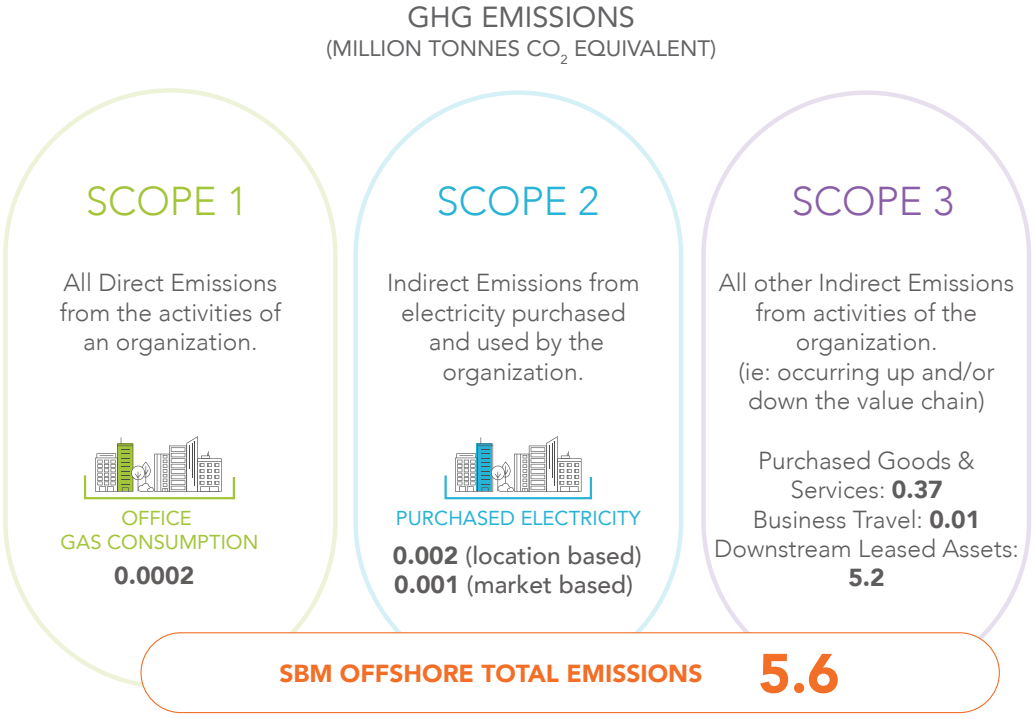
2021 PERFORMANCE

During 2021 a total of 5.6 million tonnes of GHG emissions are reported, 99% of this being Scope 3 emissions. The total is 2% lower than in 2020, despite an increase in voluntary disclosure – purchased goods and services – that adds 6% in reported GHG emissions volume compared to last year. Furthermore changes to scoping have been applied during 2021, for which details can be read in section 5.2.2. ('Changes in Reporting').

[4] 1.5 gigajoules of energy for every tonne of hydrocarbon produced as reported by companies participating in the 2019 IOGP environmental performance indicators, Report p.24

[5] 13 tonnes of oil discharged to sea per million tonnes of hydrocarbon produced as reported by companies participating in the 2019 IOGP environmental performance indicators, Report p.28

[6] 0.5 oil spills greater than one barrel per million tonnes of hydrocarbon produced as reported by companies participating in the 2019 IOGP environmental performance indicators, Report p.37



Scope 1 – Direct Emissions

Scope 1 emissions comprise the gas powered heating in offices where SBM Offshore is the sole renter of an office building. In 2021 these emissions amounted to 237 tonnes GHG CO_2 equivalent. This is an increase compared to 2020 due to higher project office activity.

Scope 2 – Purchased Electricity

Purchased electricity in offices account for 2,019 tonnes of GHG CO_2 equivalent, based on the average energy mix of each location. Accounting for the electricity actually purchased through green contracts, the amount is 752 tonnes. Prolonged remote working contribute to lower office energy related emissions compared to pre-COVID-19 levels, whilst growth in Guyana and India lead to increased consumption of office energy. The Company has expanded its sustainable energy purchasing, with the office in Rio de Janeiro now under a green energy contract as well.

Scope 3 – Purchased Goods & Services

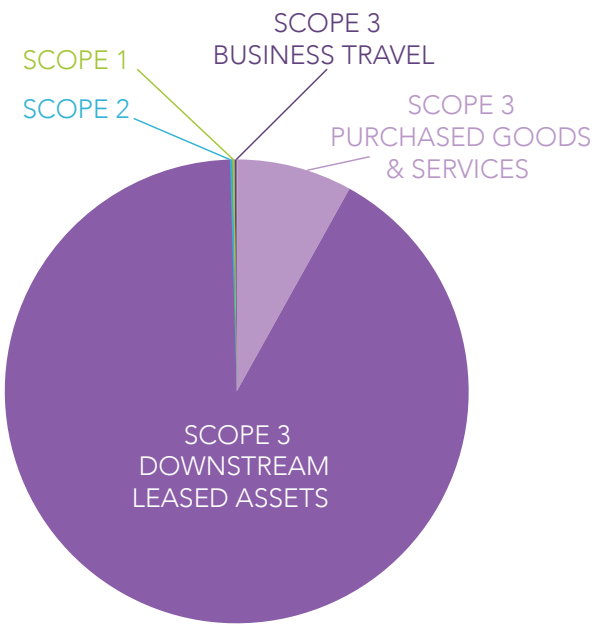
This year, SBM Offshore expands its voluntary emissions disclosure, through addition of this scope. SBM Offshore has calculated emissions resulting from goods procured on FPSO projects. These amount to 370.1K tonnes emissions. The emissions mainly come from steel that is processed for bulk materials and equipment. Based on the outcomes of the initial analysis, and in line with GHG protocol Scope 3 Corporate Value Chain Accounting & Reporting Standard, SBM Offshore will refine the data quality in the coming years and will improve the accuracy of its value chain GHG reporting. More importantly, this will provide a basis for engagement with suppliers.

Scope 3 – Downstream Leased Assets

SBM Offshore provides operation and maintenance services for FPSOs on behalf of clients across the globe, on a finance lease basis. The technical specification and operational requirements for these FPSOs are driven by reservoir characteristics and client criteria. Emissions from downstream leased assets mainly relate to the required production profile of the oil field and the subsequent energy production, e.g. from gas turbines (71%). The other key contributor is flaring (29%).

Emissions from downstream leased assets account for the majority of the carbon footprint reported by SBM Offshore. More than 90% of total emissions giving 5.2 million tonnes of GHG were emitted by downstream leased assets. This volume is 9% lower than in 2020. The carbon intensity of downstream leased assets is 110.99 tonnes of GHG emissions per thousand tonnes of hydrocarbon produced, which is 20% better than the industry benchmark[2] and 8% better than last year.

SBM Offshore Reported Emissions 2021 – based on CO_2e volumes



SBM Offshore instituted a performance program measuring flare emissions following the launch of the internal CO_2 Challenge in 2015. For 2021, SBM Offshore set a target to further optimize operational excellence on the FPSOs it provides operations and maintenance services to.
SBM Offshore targeted an absolute volume of gas flared below 1.6 million standard cubic feet per day (scft/d) as an overall FPSO fleet average during year. This was done for a specific part of the volume to which SBM Offshore expects to have the largest form of control, despite it being a Scope 3 category. SBM Offshore nearly achieved this overall target, the actual being 1.66 million scft/d. The target achievement was mainly inhibited by flash gas compressor challenges on two FPSOs. In one case, it was an FPSO in ramp-up phase with inherent challenges and for the other, it was a change in gas compressor operating philosophy by a client. SBM Offshore has defined lessons learnt for improvement and is pleased to see clients taking additional redundancy in gas compression in their basis of design, which should have a lowering effect on future gas flaring.

For the downstream leased assets that (over-)achieved their targets, average reduction of above mentioned flaring scope was 42% compared with 2020. This was achieved mainly by improvement of gas system uptime. The performance was further supported by better insight owing to an improved online emission dashboard. This provides for data-analytics and the basis to the launch of future initiatives. Overall flaring on downstream leased assets was 9% better than the industry benchmark[3].

In order to address future Scope 3 emissions, SBM Offshore has targets for Innovation, Technology and Infrastructure, in line with SDG 9. In 2021, SBM Offshore spent 60% of its Group Technology R&D budget on non-carbon technology, above the 50% target set. Also, SBM Offshore developed six low-carbon modules for FPSOs, so it can offer a lower carbon footprint to clients in the future.

To further reduce emissions from the power generation aspect of downstream leased assets in operation, SBM Offshore is dependent on investments by clients and partners in co-owned entities. SBM Offshore is ready to lead, co-develop and deliver on such investments. SBM Offshore has set a long-term engagement target for this as part of its SDG approach described in section 2.2.

Scope 3 – Business Travel

Total air travel related emissions were 10.9K tonnes in 2021. In 2021, SBM Offshore committed to 20% lower air-travel-related CO_2 emissions compared with 2019. Remote working and less travel, due to the continued COVID-19 pandemic, added significantly to the achievement of this target, with the actual reduction being 61% versus 2019. The target takes into account the fact that a portion of SBM Offshore's business travel relates to offshore operations, e.g. crew changes, where volumes are difficult to reduce significantly in short time-frames.

Other performance items relating to emissions:

- SBM Offshore is proud to have a B-score in CDP, meaning SBM Offshore is 'taking climate action'. Further explanation is given in section 1.4.3.
- SBM Offshore's energy intensity on downstream leased assets is 8% better than the industry benchmark[4]. Energy consumption volumes can be found in section 5.3.
- The quantity of oil discharged to sea per hydrocarbon production on downstream leased assets was 4.49 tonnes per million tonnes of hydrocarbon produced, 66% below IOGP benchmark[5] (see also section 2.2.)
- Downstream leased assets had 0 oil spills as per IOGP definition[6]
- SBM Offshore engaged in various projects that resulted in lower emissions. In Guyana a local agricultural project leads to lower emissions from food logistics and investments into a Mangrove project will contribute amongst others to additional sequestration of carbon. More information can be found in section 2.2.

EMISSIONZERO®

Early 2020, SBM Offshore announced the emissionZERO® concept, which has evolved into a program targeting near zero emissions. This ambition has also been made part of the sustainability policy.

EmissionZERO® aims to market floating energy production solutions with near zero emissions. SBM Offshore sets targets in line with the net-zero ambitions of key stakeholders, and calls for their active engagement. EmissionZERO® is a program for continuous product development, providing a platform for stakeholder engagement at the same time.

Key commitments:

- Strategy and actions compatible with net-zero by no later than 2050.
- Sourcing green energy to run the business (Scope 1 & 2 emissions).
- Working towards net-zero emissions from downstream leased assets (Scope 3).
- Taking a science-based approach towards emission reduction target setting (explained in section 1.4.3).

Development of an emissionZERO®-based FPSO is a key element of the program and is planned in three phases: Phase 1 consists of including existing low carbon solutions alternatives in tenders; Phase 2 focuses on an all-electric FPSO to maximize energy efficiency, feasibility of carbon capture technology integration and hybrid forms of power generation – for instance importing renewable energy from shore or floating renewable energy solutions; and Phase 3 will look at power from shore technologies and carbon-free fuel power generation.

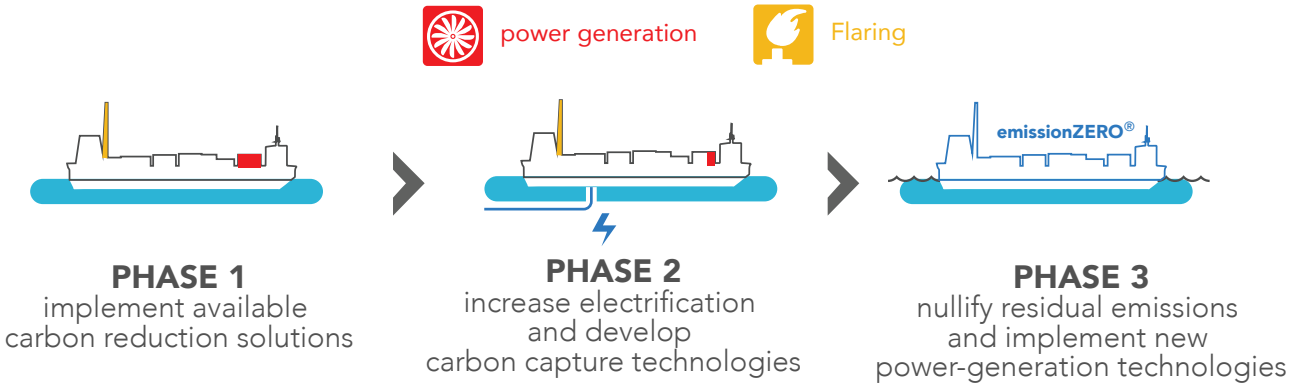
SBM Offshore is actively developing solutions and working with its stakeholders to drive down emissions from downstream leased assets on a continuous basis. Key achievements on the emissionZERO® FPSO have been:

- The engagement with strategic and key client accounts and suppliers during the year.
- The enrichment of SBM Offshore's Fast4Ward® product catalogue with low-carbon solutions.
- The qualification of new technologies, in particular combined-cycle power generation.
- The use of digital technologies (advanced analytics and predictive maintenance) to optimize energy consumption, reduce equipment trips and associated flaring.
- The establishment of a portfolio of ideas and projects to further reduce the carbon footprint of SBM Offshore's activities.

The success of the program and the impact on the above stated ambitions is highly dependent on market acceptance. SBM Offshore therefore is open for business on emissionZERO® and welcomes engagement with its value chain.

EMISSIONZERO® – THE PATH

With emissionZERO®, we want to bring to market floating energy production solutions with near zero emissions



FUTURE

SBM Offshore remains committed to the ramp-up of emissionZERO® in the coming years and to keep setting targets to reduce emissions, as explained in section 2.2. Furthermore, SBM Offshore continues to expand the work under TCFD (see section 1.4.3).

To reduce flaring in 2022, SBM Offshore has set a target for reduction in section 2.2. This target reflects the lessons learned from the achievements and challenges in 2021.

Furthermore, SBM Offshore remains committed to achieve better environmental performance than the 2020 IOGP industry benchmark for energy consumption and oil spills per production; and 50% better than the 2020 IOGP industry benchmark for oil in produced water.

2.1.8 DIGITALIZATION

MANAGEMENT APPROACH

The purpose of digitalization is to create value: better safety, emission reduction, cost savings or new revenues, for instance. With digitalization, SBM Offshore creates value through optimization of existing processes, transformation of SBM Offshore's core products and ways of working or creation of new digital services.

SBM Offshore has reinforced its organization and governance, with the creation of a Transformation Office, which provides the guidance, the framework and the support for SBM Offshore to become more digital. The Transformation Office is under the responsibility of the CEO. Digital solutions are brought to market through the Services function, described in section 1.3.3.

2021 PERFORMANCE

In 2021, SBM Offshore has continued to gain technical insight and has positioned digitalization as a key enabler of SBM Offshore's strategy and value platforms. SBM Offshore uses Digitalization to:

- Improve safety and enable remote control of SBM Offshore's assets, thanks to IoT (the 'Internet of Things'), the OIPOC (Operational Intelligence & Performance Optimization Center) or remote assistance tools.
- Reduce CO_2 emissions through improved work processes. For instance, Process Stability digital tools allow the reduction of equipment trips which, in turn, reduces emissions, thus contributing to the emissionZERO® program.
- The launch of the first pilot of the new ERP system, to further increase lifecycle value from its projects and operations through end-to-end data connection.
- Ease collaboration and allow SBMers to work together, regardless of their locations, through tools such as Microsoft Teams or collaborative platforms (e.g. the Engineering Collaborative Environment).
- Make better decisions through business intelligence software such as Power BI, enabling better insight of historical data.
- Boost learning and working experience through mobile apps or augmented reality.