

2023

Environmental, Social & Governance
(ESG) Basis of Reporting

ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) BASIS OF REPORTING¹

Introduction

Assala reports environmental, safety and workforce data on an operational control (100%) basis.

The data reported runs on an annual basis from the 1st of January until the 31st of December.

The Health, Safety, Security and Environment (HSSE), hydrocarbon flaring, and greenhouse gas (GHG) metrics cover Assala Gabon S.A. and Assala Energy UK Limited operations. There are no exclusions, and all Assala Gabon S.A. and Assala Energy UK Limited operational sites are included.

Assala measures and reports emissions arising from three main GHGs that contribute to climate change, namely carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O).

The effect of these emissions is reported separately and as a single figure, carbon dioxide equivalent (CO₂e), which represents their combined global warming potential (GWP). Our methodology for calculating greenhouse gas emissions aligns with the guidelines outlined in the IPCC AR4. We use GWP values specified in the report to assess the relative impact of different greenhouse gases, ensuring accuracy and consistency in our emissions reporting.

Hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃) are not applicable due to the nature of our business.

Scope of assurance

Selected metrics within our GHG emission and safety disclosures, as outlined below, have been independently assured by Deloitte LLP in accordance with the International Standard on Assurance Engagements 3000 (“ISAE 3000”) and Assurance Engagements on Greenhouse Gas Statements (“ISAE 3410”) issued by the International Auditing and Assurance Standards board (“IAASB”). The assurance provided is limited assurance. This process has covered the following emissions disclosures for calendar year 2023. Scope 3 emissions have been disclosed for completion but are not subject to assurance at this time.

Hydrocarbon Flaring	Hydrocarbon flaring (MMscf) Hydrocarbon flaring per day (MMscf/d)
Greenhouse Gas Emissions	Scope 1 emissions (tonnes CO ₂ e) Scope 2 emissions – Location Based – (tonnes CO ₂ e)
Health and Safety	Health and Safety – Lost Time Incident Rate (LTIR) Health and Safety – Total Recordable Incident Rate (TRIR) Total Hours Worked

Assured metrics

Metric: Hydrocarbon Flaring

Definition: Hydrocarbon flaring from sources owned or controlled by Assala Gabon. Total mass (or volume) of hydrocarbons directed to operational flare systems, wherein the hydrocarbons are consumed through combustion. Flaring per day is calculated by dividing the total annual flaring by 365 days.

Scope: Flaring data are reported on an operational control basis and runs on an annual basis from the 1st of January until the 31st of December.

Unit of reporting: MMscf and MMscf/d

Source: Flaring activity data is monitored by the Production team at site level. Data from the Distributed Control System (DCS) is keyed in manually into the Energy Component (EC) system. The DCS is installed in the control panels of the control rooms and displays the data from the flare meters (instantaneous value, the cumulative value of the day and the value of the previous day). Data is keyed into the EC system by the Production team and checked and reviewed by Assala’s engineering management for final approval. At the beginning of the 2023 reporting year, data was converted into MMscf using standard conversion factors, depending on the units implemented in the DCS.

Throughout reporting year 2023, improvements to Assala’s internal reporting system, such as to the Material Balance report, were made to progressively standardise data output as MMscf to remove the conversion requirement. As a result of these improvements, some estimates and conversion factors used previously have been replaced with more accurate data now available. At the end of reporting year 2023, all data is reported in MMscf at source and is no longer converted. A PI system is also implemented and operates in parallel with the DCS. It creates a copy of the data in the PI server to record the history and assess the quality of the measurements. Data from the EC system is then entered into Assala’s emissions calculator. The flared gas volumes are reviewed by the ESG committee, followed by independent assurance for use in external reporting.

Methodology: The calculation methodology for flaring is based on the WRI/WBCSD GHG Protocol (2011), as described in the voluntary Ipieca sustainability reporting guidance for the oil and gas industry (2020).

Flaring

- The volume of flared gas is measured by flare meters at each site, flare meters are connected on the Programmable Logic Controller (PLC) and the data from the meters are displayed on the DCS, except for Atora, where it is calculated by taking the difference between

1. Published in March 2024. Printed versions of this document are considered uncontrolled. Please refer to assalaenergy.com for the most recent Basis of reporting.

total gas produced and fuel gas. The Gas Oil Ratio used for the flaring calculation at Atora is 333scf/bbl.

- Daily meter readings are used to calculate emissions. Data points and continuous flow readings are reviewed by the operations team to ensure that potential inaccuracies in the data are identified and considered. Inaccuracies may occur due to changes in operational conditions, however when considering a daily average across a month of data points, the inaccuracies do not result in materially different data. By using a wide number of data points, and reviewing the data daily, the data used in the emissions calculations is considered to be as accurate as possible, and within a reasonable range, based on the information available.
- Operators report the values on Energy Component between 00:00 and 08:00 each day.
- Malfunctioning meters are identified through comparison with other meters and global material balance. A methodology to estimate the data, based on material balance, is applied in case of malfunctioning meters and meters are fixed at the earliest opportunity.
- The estimation process is as follows, across all sites:
 1. In the first instance, a meter is designated as the reference (the “reference meter”) for the application of Assala’s internal Material Balance report and procedures.
 2. In the second instance, and if the designated reference meter fails, secondary or tertiary meters (as defined in Assala’s internal procedures) and the Material Balance report are used.
 3. If, for any reason, a third estimation solution is required, the estimation is based on the correlation of the valve opening figure and the flowrate.

Metric: Scope 1 GHG emissions

Definition: Total scope 1 GHG emissions from sources owned or controlled by Assala Gabon, including flaring, venting & fugitives, gas combustion, diesel stationary, and transport & non-road mobile machinery.

Scope: GHG emissions data is reported on an operational control basis and runs on an annual basis from the 1st of January until the 31st of December. Assala measures and reports emissions arising from three main greenhouse gases that contribute to climate change, namely carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O).

The effect of these emissions is reported separately and as a single figure, carbon dioxide equivalent (CO₂e), which represents their combined global warming potential (GWP).

The scope of GHG emissions data reported includes:

- Assala Gabon-operated sites (including well infrastructure, stations and marine terminal).
- Camps and offices.
- Road vehicles, aircraft and marine transport that are dedicated to Assala’s use.
- Contractor drilling activities conducted on behalf of Assala operational control.

Unit of reporting: tCO₂e – aggregate (metric tonnes of CO₂ equivalent).

Source: GHG emissions activity data is submitted to the Production team at site level where it is reviewed and is captured in the data management system. Data is reviewed by Assala’s engineering management for final approval before it is entered into Assala’s emissions calculator. The emissions output data is reviewed by the ESG committee, followed by independent assurance for use in external reporting.

Methodology: The calculation methodology for GHG emissions is based on the WRI/WBCSD GHG Protocol (2011), as described in the voluntary Ipeca sustainability reporting guidance for the oil and gas industry (2020).

Flaring

- The emission factors are based on flare gas composition and a destruction efficiency assumption of 99.8%. The assumption is verified by the 2022 and 2023 SeekOps Methane Emissions Survey Reports.
- For full details on flaring methodology please refer to the above metric “Scope 1 Flared Gas Volumes”.

Gas Combustion

- The volume of fuel gas consumed is measured by gas meters at each site. The emission factors are based on fuel gas composition and the combustion characteristics of the plant source group.
- Daily meter readings are used to calculate consumption and, therefore, emissions. Data points and continuous flow readings are reviewed by the operations team to ensure that potential inaccuracies in the data are identified and considered. Inaccuracies may occur due to changes in operational conditions. However, when considering a daily average across a month of data points, the inaccuracies do not result in materially different data. By using a wide number of data points, and reviewing the data daily, the data used in the emissions calculations is as accurate as possible, and within a reasonable range, based on the information available.
- Malfunctioning meters are identified through comparison with other meters and overall material balance. A methodology to estimate the data, based on material balance, is applied in case of malfunctioning meters and meters are fixed at the earliest opportunity.

Venting & Fugitives

- The emissions from venting pertain to gas actuated devices and fugitives relate to gas leaks from imperfect seals or connections within the infrastructure. Venting emissions are calculated using a fixed rate per component per unit of time. Fugitive emissions are calculated using a factor that relates the emissions to oil production. Oil production is measured at each site using calibrated fiscal meters, which are regularly checked by the State Authorities. The emission factors are adjusted for gas composition and scaled by interpolating between the measurements contained in the 2022 and 2023 SeekOps Methane Emissions Survey Reports, published internally on the 12th of October 2022 and 13th of November 2023 respectively. The timing of validated repairs has been duly accounted for. Venting and fugitive emissions account for 14% of total scope 1 emissions in 2023.

Diesel stationary, and transport & non-road mobile machinery

- Diesel stationary refers to diesel used in stationary, or semi-stationary, engines for applications such as standby or continuous power generation, pumps, and compressors.
- Transport and non-road mobile machinery are fuelled by diesel or Jet-A1 (aviation kerosene).
- Categories used with diesel data are:
 1. Light commercial vehicles: vans, pickups and SUVs
 2. Heavy vehicles: trucks and buses
 3. Non-road mobile machinery: mobile cranes, forklifts, tractors, excavators and similar
 4. Boats
- Categories used with aviation kerosene data are:
 1. Aviation: helicopters

GHG Emissions Conversion Factor Methodology/ Sources

Assala expresses the impact of different GHGs in the following ways:

- GHG emissions per type (CO₂, CH₄, N₂O): metric tonnes and/or metric tonnes CO₂ equivalent (where CO₂e = metric tonnes of the GHG species of interest, multiplied by its GWP relative to CO₂).
- Total GHG emissions: metric tonnes CO₂ equivalent (where CO₂e = the sum of the emissions of each GHG species multiplied by its respective GWP relative to CO₂, in metric tonnes).

The following references have been employed in support of the development of these emissions factors. In line with the GHG Protocol, Assala uses the most accurate calculation approach available and incorporates national, international and industry standards reporting guidelines:

- Ipieca sustainability reporting guidance for the oil and gas industry (2020)
- AP-42: Compilation of Air Emissions Factors
- API GHG compendium 2021
- EMEP/EEA Inventory Guidebook 2023

- UK Government GHG conversion factors 2023 (Full Set)
- Site specific fuel and flare gas compositions

Metric: Scope 2 GHG emissions

Definition: Total scope 2 GHG emissions from the generation of purchased electricity consumed by Assala. Purchased electricity is defined as electricity that is bought or otherwise brought into the organisational boundary of the company. Scope 2 GHG emissions physically occur at the facility where electricity is generated.

Scope: GHG emissions data is reported on an operational control basis, as per the location-based method. It includes electricity from power companies to supply Assala.

Unit of reporting: tCO₂e – aggregate (metric tonnes of CO₂ equivalent).

Source: Energy usage in Gabon offices is derived from metered kWh electricity as per invoices from the electricity provider (SEEG).

UK office energy usage is metered and provided by the building owner.

Methodology: The calculation methodology for GHG emissions is based on the WRI/WBCSD GHG Protocol (2011), as described in the voluntary Ipieca sustainability reporting guidance for the oil and gas industry (2020). Scope 2 includes all electricity purchased by Assala for the purposes of running of the business.

Electricity invoices (as described above) are initially posted in the SAP ERP system. Periodically, they are reviewed, and electricity consumption is extracted and recorded into a worksheet used to calculate the annual consumption by site.

For a number of Gabon office locations, where utility costs are included in rent, and separate metered data is not available, energy usage, as recorded in the relevant worksheet in Assala's emissions calculator, is estimated, based on building size (floorspace) and the average daily electricity usage, observed at the largest location with metered electricity usage.

Estimated emissions account for approximately 45% of total (UK + Gabon) scope 2 emissions in 2023.

Emissions from consumption of purchased electricity are calculated using the grid generation factors for 2021 from the IEA Emissions Factors 2023 for Gabon and DESNZ Conversion Factors 2023 for the UK. Factors are published for the three GHG gases included in this system: CO₂, CH₄ and N₂O. The use of the national grid emission factor corresponds to the location-based method of emissions accounting. Assala does not follow the market-based approach for the following reasons:

- In the region of Gabon in which Assala operates, neither renewable energy sources nor the contractual instruments required to follow the market-based method are available.
- In Assala's United Kingdom office, electricity contracts are held by the building owner, and electricity consumption provided to building occupants. Assala has neither control over electricity fuel type mix, nor direct contact with energy suppliers to the building.

The data is checked before it is entered into Assala's emissions calculator. The emissions output data is reviewed by the ESG committee followed by independent assurance for use in external reporting.

Assala also pays for the electricity supplied to some expatriate residential accommodation near Assala Gabon's Port-Gentil offices. This is considered to be scope 3 because:

- Assala does not have any significant level of control over the specification or maintenance of the residential accommodation nor the electricity consuming equipment within the accommodation.
- The operation of such equipment is the responsibility of off-duty expatriate employees, residing in the accommodation. These emissions therefore belong to the individual occupying the accommodation, and not Assala.

Metric: Total Hours Worked

Definition: All hours worked by Assala employees and contractors.

Scope: This metric covers all Assala employees and contractors.

Unit of reporting: Number of hours worked

Source:

- Employee headcount is provided monthly by Assala’s Human Resources (HR) department and includes details on both shift and office workers.
- Contractor headcount for shift workers is provided monthly by each Assala site and is based on the daily Personnel on Board (POB).
- Contractor headcount for office workers is provided monthly by contract focal points.
- Hours for contractors are recorded monthly by contract focal points through the internal portal.

Methodology:

Employees

Number of hours worked by shift workers (28 days on / 28 days off) and office workers (5 weekdays / 2 weekend days); hours calculated as follows:

[number of shift workers x number of worked days x number of hours worked per day (12) + number of office workers x number of worked days x number of hours worked per day (8)].

Contractors

Number of hours worked by shift contractors (28 days on / 28 days off) and office contractors, in line with a POB report prepared by Assala employees. Hours calculated as follows:

[number of shift workers x number of worked days x number of hours worked per day (12) + number of office workers x number of worked days x number of hours worked per day (8)].

Note: on average, over the year, the total weekend days per month is eight days (for office workers) and the total leave days per person and per month is two (for both office and shift workers (employee and contractors)).

Assumptions made in line with IOGP Safety data reporting user guide - Scope and definitions (2023 data).

Metric: Total recordable injury rate (TRIR)

Definition: The number of recordable injuries (fatalities + lost workday cases + restricted workday cases + medical treatment cases) per million hours worked.

Scope: Workforce data covers Assala employees and contractors.

Unit of reporting: Number of recordable injuries per million hours worked

Source: Recordable injuries are recorded in Velocity EHS by Assala Gabon and Assala Energy. Please refer to Total Hours Worked definition above for further details on how “worked hours” are captured and calculated.

Methodology: Velocity is Assala’s software application for recording and reporting Health, Safety, Security and Environment (HSSE) incidents. Incidents may be entered by any Assala employee or contractor with Velocity access, irrespective of their work location or function in the business. Assala’s HSSE Assurance team, based in Assala’s Port-Gentil and London offices, are accountable for confirming the completeness and accuracy of the incident data entered. The HSSE team determines the classification of incidents using the data entered in Velocity and in line with the IOGP Safety data reporting user guide – Scope and definitions, recognising that incidents are more likely to occur on an Assala Gabon operational site during the execution of Assala’s core activities.

Contractors under Assala’s supervision are key HSSE focal points on all Assala operational sites - and any incidents that occur (whether Assala employee/contractor or subcontractor used by a contractor) - are all reported in line with Assala’s approved operating guidance.

TRIR is calculated by dividing the number of recordable injuries (fatalities + lost workday cases + restricted workday cases + medical treatment cases) by the number of total hours worked multiplied by one million.

One million hours is the frequency unitisation used in this calculation, as per the IOGP Safety Performance Indicator definition.

Metric: Lost time injury rate (LTIR)

Definition: The number of lost time injuries (fatalities + lost workday cases) per million hours worked.

Scope: Workforce data covers Assala employees and contractors.

Unit of reporting: Number of lost time injuries per million hours worked

Source: Recordable injuries are recorded in Velocity EHS for Assala Gabon and Assala Energy. Please refer to Total Hours Worked definition above for further details on how “worked hours” are captured and calculated.

Methodology: Velocity is Assala’s software application for recording and reporting Health, Safety, Security and Environment (HSSE) incidents. Incidents may be entered by any Assala employee or contractor with Velocity access, irrespective of their work location or function in the business. Assala’s HSSE Assurance team, based in Assala’s Port-Gentil and London offices, are accountable for confirming the completeness and accuracy of the incident data entered. The HSSE team determines the classification of incidents using the data entered in Velocity and in line with the IOGP Safety data reporting user guide – Scope and definitions, recognising that incidents are more likely to occur on an Assala Gabon operational site during the execution of Assala’s core activities.

Contractors under Assala’s supervision are key HSSE focal points on all Assala operational sites - and any incidents that occur (whether Assala employee/contractor or subcontractor used by a contractor) - are all reported in line with Assala’s approved operating guidance.

LTIR is calculated by dividing the number of lost time incidents by the number of total hours worked multiplied by one million.

One million hours is the frequency unitisation used in this calculation, as per the IOGP Safety Performance Indicator definition.

Restatement policy

Whilst Assala's methodology is aligned with the WRI/WBSCD GHG Protocol (2011), guidance regarding the implementation of the Protocol continues to evolve to promote consistent and comparable reporting across all entities. Assala may therefore refine our approach in future periods. In instances where retrospective applications of such refinements exceed the materiality thresholds defined below, Assala will update relevant comparative period information where available to reflect best practice. Assala defines this threshold both quantitatively and qualitatively.

For both scope 1 and 2 and scope 3 emissions, Assala considers any variances that would significantly alter stakeholders' interpretations of information presented (i.e., if that variance could be reasonably expected to influence decisions that would be made on the basis of the information presented) to be considered qualitatively material.

- Though a quantitative threshold is not defined for scope 1 and 2 emissions in the WRI/WBSCD GHG Protocol (2011), Assala considers 5% of total scope 1 and 2 emissions in the reporting period to be quantitatively material.
- In line with the WRI/WBSCD GHG Protocol Corporate Value Chain (Scope 3) Standard, Assala defines the scope 3 quantitative materiality threshold at 10% of total scope 3 emissions in the reporting period.

These materiality thresholds are subject to annual review.

Assala monitors reductions in emissions by comparing changes in actual emissions data over time relative to the base year 2020.

Footnotes

1. Assala's ESG reports are published ahead of the release of annual IOGP safety averages. As such, Assala benchmarks against the previous year's average.
2. IOGP Safety Performance Indicators – 2022 data: <https://www.iogp.org/bookstore/product/safety-performance-indicators-2022-data/>
3. IOGP Safety data reporting user guide – Scope and definitions 2023 data: <https://www.iogp.org/bookstore/product/safety-data-reporting-user-guide-scope-and-definitions-2023-data/>
4. Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporting-Standard_041613_2.pdf
5. This report covers the activities of affiliate companies Assala Energy UK Limited, and Assala Gabon S.A. conducted either jointly or separately, during the 2023 reporting period (January the 1st – December the 31st). The name "Assala" in this report refers collectively to the entities Assala Energy UK Limited and Assala Gabon S.A. As such, terms such as "we", "us" and "our" are used for convenience to refer to both entities. Information specific to a single entity is referred to as either Assala Energy or Assala Gabon respectively.
6. From 2021, Assala refers to incident rates as TRIR and LTIR, for enhanced clarity and in line with IOGP guidance. Previously TRCF and LTIF were used interchangeably with TRIR and LTIR to refer to incident rates.



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