

ENVIRONMENT, HEALTH AND SAFETY REPORTING CRITERIA 2019 BASELINE – 2024 ANNUAL REPORT

This document sets out the scope, principles, and methodologies used in reporting environment, health, & safety (EH&S) metrics in the Environment, Health & Safety section of Tate & Lyle's 2024 Annual Report.

OUR GENERAL REPORTING PRINCIPLES

We have sought to ensure that:

- The reported data accurately reflects our performance and serves the general needs of the Report's users.
- Information reported is transparent to enable the Report's users to have confidence in the integrity of the data and information we report.
- The data reported is meaningful and consistent with the definitions, scope and boundaries stated in these Reporting Criteria.
- Consistent data scope and methodologies are used year-to-year and between our base year (2019) and subsequent years to provide accurate and transparent performance comparisons over time. Any material changes in data scope or measurement methodologies versus the previous reporting year, or the base year, are made clear.
- Any specific, material exclusions are stated and explained.
- The use of any significant assumptions we make regarding our measurement and calculation methods are stated.

Restatement of Reported Data

In the event, Tate & Lyle acquires or divests manufacturing sites, research and develop (R&D) centers and offices (collectively referred to as 'facilities'), the 2019 baseline data will be updated to maintain or improve the accuracy and/or comparability of the data and performance trends. Adjustments to the baseline due to acquisitions, divestitures or to correct for any variance identified in prior years' data will be disclosed in the Annual Report.

Baseline data will not be updated for site opening and closures as it is considered inorganic growth. Impacts of site openings/closures will be realized within the year the event occurs and in subsequent reporting years as applicable and disclosed in the Annual Report.

Reporting Boundaries

The reporting boundaries applied are as follows:

- Environmental, Health & Safety related performance data is reported by calendar year (i.e., 01 January 2023 through 31 December 2023) to ensure compliance with regulatory reporting requirements.
- Environmental performance data is reported from Tate & Lyle-owned and joint-venture manufacturing sites where Tate & Lyle has operational control or responsibility for environmental compliance. Excluded include:
 - Stand-alone offices and R&D centers which together generate less than 1% of Tate & Lyle's total Scope 1 and Scope 2 greenhouse gas (GHG) emissions.
 - Purchased services, capital goods, well-to-wheel emissions for US based transportation under Scope 3 categories 4, 6, 7 and 9 which together generate less than 2% of Tate & Lyle's total Scope 3 GHG emissions.
- Safety performance data is reported from all Tate & Lyle-owned and joint-venture facilities for all Tate & Lyle employees, regardless of the duration of employment, and contractors.

Site Openings, Restarts & Acquisitions

Unless otherwise stated, the following principles are applied:

- EH&S data is measured from the date of purchase or operation start date of a facility.
- Environmental data is included in the external reporting scope after data has been measured for one full calendar year of operation under our ownership/control (i.e., environmental data from a manufacturing site purchased in March 2023 would be first reported in the 2025 Annual Report after a full calendar year of internal reporting & data verification).
- Safety data is included in the external reporting scope from the first day of operation under our ownership / control (i.e., safety data from a manufacturing site purchased in March 2023 would be first reported in the 2024 Annual Report).

Site Closings and Divestitures

Unless otherwise stated, the following principles are applied:

- Environmental data is included up until the last full month of ownership / control.
- Safety data is included up until the date of sale and/or closure, as far as practical.

Data Quality Assurance

Since 2018, the system of record for EH&S facility-related data is Benchmark Gensuite ('Benchmark'), which is web-based and commercially available.

All EH&S facility data referred to herein, except Scope 3 GHG emissions, is audited pursuant to internal procedure which requires internal EH&S professionals to review performance data on a regular basis. All publicly reported environmental data is audited by Tate & Lyle's internal audit team and third-party auditors annually with the exception of Scope 3 for which select categories are selected for audit. The following Scope 3 categories were audited for the 2024 Annual Report: purchased goods and services (category 1), waste generated in operations (category 5), business travel (category 6) and investments (category 15 – third party audit details provided by Primient).

REPORTING DETAILS AND METHODOLOGY

Environmental Data

The scope of all environmental data is defined in the Reporting Boundaries section above.

Energy Use

- **DEFINITION:** The consumption of fuel, steam, and electricity.
- **SCOPE:** Tate & Lyle-controlled manufacturing sites per the Reporting Boundaries section above.
- **DATA SOURCE:** Primarily based on third party invoices or, in their absence, from calibrated meter readings associated with the consumption of:
 - Natural gas, gasoline/petrol, gas/diesel oil, residual fuel oil, liquified petroleum gas (LPG), and biomass
 - Onsite Combined Heat and Power (CHP) plants
 - Purchased electricity – Where process and non-process energy uses are metered separately, only the process energy is reported; where process and non-process electricity uses are metered together, both are reported.
 - Purchased steam
 - Fuel for onsite mobile equipment
- **UNITS:** Gigajoules (GJ)
- **METHOD:** Invoiced fuel, steam and electricity usage is entered into Benchmark, which converts reported units (e.g., m3, scf, kg, short tons, litres, kWh, mmBtu, etc.) to GJ by applying the most appropriate and recent calorific conversion factors from the sources given and in accordance with the reporting guidance. Where more accurate, specific energy values of fuel sources are known, these are calculated at the site-level prior to entry into Benchmark and these calculations are provided as supporting evidence within Benchmark.
- **CONVERSION FACTOR SOURCES**
 - The International System of Units (SI) – Conversion Factors for General Use, U.S. Dept. of Commerce, Technology Administration, National Institute of Standards and Technology, 2006

- Mandatory Greenhouse Gas Reporting, 40 CFR Part 98, U.S. Environmental Protection Agency (EPA), revised 08 Feb 2019
- Annex II: Metrics & Methodology. In: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2014
- **REPORTING METHODOLOGY**
 - Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, HM Government, March 2019

Greenhouse Gases (GHG), Scope 1 & 2

- **DEFINITION:** The GHG emissions resulting from onsite energy consumption
 - **GREENHOUSE GASES:** carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulfur hexafluoride (SF₆) and nitrogen trifluoride (NF₃)
 - **SCOPE 1 EMISSIONS:** emissions from the onsite combustion of fuel
 - **SCOPE 2 EMISSIONS:** emissions from purchased electricity, steam, heat or cooling
 - **BIOENERGY:** energy generated from the conversion of solid, liquid, and gaseous products derived from biomass
 - **BIOMASS:** any organic matter (i.e., biological material) available on a renewable basis. This includes feedstock derived from animals or plants, such as wood and agricultural crops, and organic waste from municipal and industrial sources.
 - **LOCATION-BASED METHOD:** a method to calculate Scope 2 emissions which reflects the average emissions intensity of grids on which energy consumption occurs over a defined time period (using mostly grid-average emission factor data).
 - **MARKET-BASED METHOD:** a method to calculate Scope 2 emissions which reflects emissions from electricity that companies have purposefully chosen (or their lack of choice).

The Science Based Targets initiative approved target language (as of April 2024): *Tate & Lyle PLC commits to reduce absolute scope 1 and 2 GHG emissions 30% by 2030 from a 2019 base year. The target boundary includes biogenic emissions and removals from bioenergy feedstocks.*

- **SCOPE:**
 - Tate & Lyle-controlled manufacturing sites per the Reporting Boundaries section above.
- **DATA SOURCE:**
 - Energy usage
 - Contractual instruments for the sale and purchase of energy where available (i.e., renewable energy certificates)
- **UNITS:** Tonnes carbon dioxide equivalent (CO₂e)
 - A tonne of carbon dioxide equivalent (CO₂e) comprises one metric tonne of carbon dioxide or an amount of any other GHG with an equivalent global warming potential, calculated consistently with international carbon reporting practice.
- **METHOD:** Benchmark converts reported fuel and energy quantities to tonnes CO₂e by applying the most relevant emission factors available at the time of reporting from the sources below and in accordance with the calculation sources below. Scope 2 emissions are reported according to both the location- and market-based methods.
- **EMISSION FACTOR SOURCE**
 - Mandatory Greenhouse Gas Reporting, 40 CFR Part 98, US EPA, revised 08 Feb 2019
 - The Netherlands: list of fuels and standard CO₂ emission factors, Netherlands Enterprise Agency, 2020
 - U.S. Environmental Protection Agency Emissions and Generation Integrated Database (eGRID)
 - International Energy Authority (IEA), January 2024
 - Greenhouse gas reporting: conversion factors 2023, UK Government, Department for Business, Energy & Industrial Strategy, June 2024

- **REPORTING METHODOLOGY**

- The Greenhouse Gas Protocol, a corporate Accounting and Reporting Standard, WBCSD/WRI, Revised 2015
- GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard, WBCSD/WRI, 2015
- Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, HM Government, March 2019
- Mandatory Greenhouse Gas Reporting, 40 CFR Part 98, US EPA, revised 08 Feb 2019
- Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, HM Government, March 2019
- SBTi Corporate Near-term Criteria and Recommendations, Version 5.2, March 2024

Greenhouse Gases (GHG), Scope 3

- **DEFINITION:** The GHG emissions arising from Tate & Lyle's value chain, which include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulfur hexafluoride (SF₆) and nitrogen trifluoride (NF₃) as applicable.

The Science Based Targets initiative approved target language (as of April 2024): *Tate & Lyle PLC also commits to reduce absolute scope 3 GHG emissions 15% over the same target period [by 2030 from a 2019 base year].*

- **SCOPE:** Following a screening exercise of all 15 Scope 3 categories, the following were deemed to be relevant for Tate & Lyle and 2019 emissions estimated. Relevant emissions categories are reported on each year through 2022:
 - **PURCHASED GOODS AND SERVICES (Category 1):** Embodied carbon associated with goods and services purchased by Tate & Lyle.
 - **CAPITAL GOODS:** Embodied carbon associated with capital goods purchased by Tate & Lyle.
 - **FUEL AND ENERGY RELATED ACTIVITIES NOT INCLUDED IN SCOPE 1 AND 2 (Category 3):** Emissions from transmission and distribution losses from purchased electricity and steam, and well-to-tank (WTT) emissions.
 - **UPSTREAM TRANSPORTATION (Category 4):** Emissions from the transport of materials to Tate & Lyle facilities.
 - **WASTE GENERATED IN OPERATIONS (Category 5):** Emissions from solid waste disposal.
 - **BUSINESS TRAVEL (Category 6):** Emissions from business related travel
 - **EMPLOYEE COMMUTING (Category 7):** emissions from Tate & Lyle employees commuting to work.
 - **DOWNSTREAM TRANSPORTATION (Category 9):** Emissions from the transportation and distribution of goods from Tate & Lyle facilities to customers.
 - **PROCESSING OF SOLD PRODUCTS (Category 10):** Emissions from the processing of sold products by Tate & Lyle's customers.
 - **END OF LIFE TREATMENT OF SOLD PRODUCTS (Category 12):** Emissions from the eventual end-of-life of Tate & Lyle's products.
 - **INVESTMENTS (Category 15):** Emissions from investments including joint ventures that do not meet the reporting criteria for reporting under Scope 1 and 2

EXCLUDED CATEGORIES

The following Scope 3 categories were assessed and deemed not relevant sources for Tate & Lyle: Upstream Leased Assets (Category 8), Use of Sold Products (Category 11), Downstream Leased Assets (Category 13) and Franchises (Category 14).

- **DATA SOURCE:** GHG emissions have been calculated using activity data from Tate & Lyle databases and emissions factors from the sources listed in the Method section below.
- **UNITS:** Tonnes CO₂e

- **METHOD:**

2019 BASELINE

Of the categories included in the Scope above, the largest proportion of emissions >95% are attributed to the four Scope 3 categories listed below, hence further calculations were undertaken to refine these four emission estimates. Emissions from the other five Scope 3 categories were estimated by multiplying representative activity data by relevant conversion factors and, where required, were extrapolated to estimate the annual emissions for the baseline year (2019).

- **PURCHASED GOODS AND SERVICES**: Calculated by multiplying 2019 procurement data by appropriate emissions selected from the following:
 - US-based corn through the Truterra partnership
 - Stevia through a Life Cycle Analysis
 - Ecolinvent v3.5 factors for all other materials
- **UPSTREAM AND DOWNSTREAM TRANSPORTATION AND DISTRIBUTION**: Calculated by multiplying either the number of shipments or total weight of shipments and distance travelled for 2019 by appropriate conversion factors from the following:
 - US EPA Emission Factors for Greenhouse Gas Inventories (Note: To align with rest of world reporting, an uplift based on BEIS emission factors was applied to kgCO₂e calculations, to account for WTT in North American calculations.)
 - BEIS 2019 Conversion Factors for Company Reporting
 - Ecolinvent v3.5 factors
- **INVESTMENTS**: Calculated using Primient's 2019 Scope 1 and 2 emissions apportioned to Tate & Lyle's investment in Primient. Tate & Lyle now holds a 49.9% interest in Primient.
- **PROCESSING OF SOLD PRODUCTS**: Estimated by determining the proportion of customer Scope 1 & 2 emissions attributable to Tate & Lyle. In absence of more specific data, it was assumed that this proportion aligns with the ratio of Tate & Lyle's net sales to a particular customer, as it compares to the raw material portion of that customer's cost of goods sold (CoGS.).

ANNUAL PERFORMANCE SCOPE & PERFORMANCE MEASUREMENT METHODOLOGY

The scope of annual performance measurements includes Scope 3 categories for which there has been statistically significant changes in GHG emissions due to initiatives, interventions, or emission factors.

2023 FOOTPRINT

The following updates have been made as part of Tate & Lyle's 2023 annual performance measurement:

- **PURCHASED GOODS AND SERVICES**: The following data was updated:
 - Quantities of corn, stevia and tapioca starch purchased for 2023.
 - Emission factors for corn from Truterra (independently verified through the Primient/Truterra partnership)
 - Emission factors for stevia (life cycle analysis)
 - Emissions factors through a combination of primary data sources and where unavailable, the use of Ecolinvent factors v3.8 for all other materials.
- **FUEL AND ENERGY RELATED ACTIVITIES (NOT INCLUDED IN SCOPE 1 OR 2)**: Updated based on 2023 fuel and electricity usage, and the appropriate 2023 Department for Energy Security and Net Zero (DESNZ) Conversion Factors for Company Reporting
- **WASTE GENERATED IN OPERATIONS**: Updated with 2023 activity data for waste disposal using the following sources:
 - U.S. EPA factors (2023 GHG emission factors hub) for all reporting facilities in the United States

- DESNZ 2023 UK Government conversion factors for company reporting of greenhouse gas emissions, Greenhouse gas reporting: conversion factors 2023 for all reporting non-United States facilities
 - **BUSINESS TRAVEL:** Updated based on business related travel including flights, hotel stays, rail and car rentals using DESNZ 2023 UK Government conversion factors for company reporting of greenhouse gas emissions, Greenhouse gas reporting: conversion factors 2023
 - **UPSTREAM AND DOWNSTREAM TRANSPORTATION AND DISTRIBUTION:** Emission factors for both Scope 3 categories were revised across all transport modes using the following sources:
 - US EPA Emission Factors for Greenhouse Gas Inventories, 2022 (Note: To align with rest of world reporting, an uplift based on BEIS emission factors have been applied to kgCO₂e calculations, to account for WTT in North American calculations.)
 - DESNZ 2023 UK Government conversion factors for company reporting of greenhouse gas emissions, Greenhouse gas reporting: conversion factors 2023.
 - **PROCESSING OF SOLD PRODUCTS:** Emissions were revised by determining the proportion of customer Scope 1 & 2 emissions attributable to Tate & Lyle for 2023.
 - **INVESTMENTS:** Updated with Primient's 2023 Scope 1 and 2 emissions apportioned to Tate & Lyle's investment in Primient. Tate & Lyle now holds a 49.9% interest in Primient.
 - Scope 3 emissions categories that were deemed relevant in the 2019 baseline, but not listed above were not updated in 2023.
- **REPORTING METHODOLOGY**
 - SBTi Corporate Near-Term Criteria, Version 5.1, March 2024
 - Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, WRI / WBCSD, May 2013

Water Use

- **DEFINITION:**
 - **WATER USE:** The total amount of water brought onsite and withdrawn from a well/groundwater, municipality/public water source, and surface water/lake/river per the Scope below.
 - **WATER USE INTENSITY:** Volume of water used (m³) divided by production (metric tonnes)
- **SCOPE:**
 - Where process and non-process water uses are metered separately, only the water consumed in the process is reported.
 - Where process and non-process water uses are metered together, both are reported.
 - Non-contact cooling water is reported unless the non-contact cooling water is returned to its original source (e.g., river to river).
- **DATA SOURCE:** Invoices for purchased water and calibrated meter readings for onsite water withdraws.
- **UNITS:**
 - **WATER USE:** Cubic meters (m³)
 - **WATER USE INTENSITY:** m³ water used/ metric tonnes production
- **METHOD:** Invoiced quantities of purchased water or calibrated meter readings for onsite water withdraws are used to calculate the water use intensity in Benchmark. Water use intensity is defined by AEI (Aggregate Efficiency Index) by calculating Static Intensity (SI) and Static Activity (SA) through the following formula:
- **CONVERSION FACTOR SOURCES**
 - The International System of Units (SI) – Conversion Factors for General Use, U.S. Dept. of Commerce, Technology Administration, National Institute of Standards and Technology, 2006

US EPA ENERGY STAR Aggregate Efficiency Index to calculate Water Efficiency Index

<https://www.energystar.gov/sites/default/files/tools/ENERGY%20STAR%20Aggregate%20Efficiency%20Index.pdf>

Step 1 - Collect Annual Water Consumption and Production Data for all sites from Benchmark. Calculate individual site water intensity.

1.a. $\text{Water Intensity}_{\text{site } i} = \text{Water Consumed}_{\text{site } i} / \text{Production}_{\text{site } i}$

Step 2 - Calculate Static Intensity (SI) index and Static Activity (SA) index for each site.

2.a. $\text{SI} = \text{Production}_{\text{Per-B}} * \text{Water Intensity}_{\text{Per-A}}$

2.b. $\text{SA} = \text{Production}_{\text{Per-A}} * \text{Water Intensity}_{\text{Per-B}}$

Step 3 - Compare organization-level alternative scenario water values to actual water totals.

3.a. Sum $\sum(\text{Water Consumed}_{\text{Per-A}})$ and $\sum(\text{Water Consumed}_{\text{Per-B}})$ for all sites.

3.b. Sum $\sum(\text{SI})$ for all sites.

3.c. Sum $\sum(\text{SA})$ for all sites.

3.d. Divide: $\sum(\text{SA}) / \sum(\text{Water Consumed}_{\text{Per-A}})$

3.e. Divide: $\sum(\text{Water Consumed}_{\text{Per-B}}) / \sum(\text{SI})$

Step 4 - Compute the Organization-level AEI by taking the geometric average of SA and SI

4.a. $\text{AEI} = \sqrt{(\text{SA} * \text{SI})}$

4.b. $\text{Percent Change} = (1 - \text{AEI}) * 100\%$

Note: this methodology can be used to compare any two time periods. To compare two consecutive years Per-A = Year 1 and Per-B = Year 2. To compare current performance to a baseline year Per-A = Baseline Year and Per-B = Current Year.

Beneficial Use of Waste

• DEFINITIONS:

- **WASTE:** Anything for which Tate & Lyle has no further use and that is intended for disposal with the following exceptions:
 - Scrap metal, construction waste, and demolition waste generated outside of regular daily operations
 - Wastewater authorized to be directly discharged to the environment (e.g. rivers, lakes, groundwater, or the land) or discharged or transported to an approved wastewater treatment facility (e.g., public, or regional wastewater treatment plant).
- **BENEFICIAL USE:** Waste from Tate & Lyle-controlled manufacturing sites, per the Reporting Boundaries, that is disposed of in a way that provides a functional benefit, meets material specifications as applicable, and does not pose concerns to human health or the environment. Beneficial use of waste may be achieved through, but not limited to land application, recycling, composting, or recovery, including energy recovery. Non-beneficial use of waste (incineration and landfilling without waste-to-energy recovery) is excluded from this definition.
- **ENERGY RECOVERY:** The conversion of waste materials into useable heat, electricity, or fuel through a variety of processes, including combustion, gasification, pyrolysis, anaerobic digestion, and landfill gas (LFG) recovery. This process is often called waste-to-energy (WTE).
- **RECOVERY:** Waste management method by which the value of waste is retained so that it can be used to substitute materials which would otherwise have been used to fulfill a particular function.
- **RECYCLING:** Waste management method wherein waste materials are reprocessed into products or materials to be used either for the same purpose for which they were intended or another purpose.

- **DATA SOURCE:** Invoices from waste service providers or weighbridge records from the operations of Tate & Lyle-controlled manufacturing sites, per the Reporting Boundaries.
- **UNITS:** Waste beneficially used (metric tonnes) divided by total waste generated (metric tonnes)
- **METHOD:** Benchmark converts input waste quantities or volumes to metric tonnes and then conducts the beneficial use division

- **CONVERSION FACTOR SOURCE**

- The International System of Units (SI) – Conversion Factors for General Use, U.S. Dept. of Commerce, Technology Administration, National Institute of Standards and Technology, 2006
- Volume-to-Weight Conversion Factors for Solid Waste, US EPA, April 2016

Production (excluding for water intensity calculation)

- **DEFINITIONS:**

- **AT CORN WET MILLING MANUFACTURING SITES:** The weight of corn input before cleaning as part of the production process
- **ALL OTHER MANUFACTURING SITES (I.E. NON-CORN WET MILLING SITES):** The weight of product exiting the manufacturing process and shipped to customers. Data is derived from site-level process control software and accounting systems.

- **DATA SOURCE:** Internal Tate & Lyle accounting systems

- **UNITS:** Metric tonnes

- **METHOD:** Benchmark converts corn input volumes and finished product weights to metric tonnes.

- **CONVERSION FACTOR SOURCE**

- United States Standards for Corn, 7 CFR Part 810, Subpart D, August 30, 2019

Safety Data

The scope of all safety data is defined in the Reporting Boundaries section above.

Recordable Incident Rate (also referred to as the Total Incident Recordable Rate (TRIR))

- **DEFINITION:** The number of work-related injuries and illness cases as defined by U.S. Occupational, Health and Safety Administration (OSHA) recordkeeping requirements multiplied by 200,000 and divided by the total hours worked in the calendar year.
- **SCOPE:** All full-time, part-time, and contracted employees per the Reporting Boundaries.
- **METHOD:** Safety data is recorded in Benchmark by incident and reported at the facility, organization, and business levels.
- **REPORTING METHODOLOGY:** Recording and Reporting Occupational Injuries and Illnesses, 29 CFR Part 1904, OSHA, February 2020

Lost Time Rate (LTR)

- **DEFINITION:** The number of work-related injuries and illness cases as defined by U.S. OSHA recordkeeping requirements that resulted in restricted workdays and days away from work multiplied by 200,000 and divided by the total hours worked in the calendar year.
- **SCOPE:** All full-time, part-time, and contracted employees per the Reporting Boundaries
- **METHOD:** Safety data is recorded in Benchmark by incident and reported at the facility, organization, and business levels.
- **REPORTING METHODOLOGY:** Recording and Reporting Occupational Injuries and Illnesses, 29 CFR Part 1904, OSHA, February 2020

Revision Date: April 2024