

CR Reporting Criteria Annual Report 2016

This document (“the CR Reporting Criteria”) sets out the scope, principles and methodologies used in reporting certain Corporate Responsibility (CR) performance data in the CR section of Tate & Lyle’s Annual Report 2016 (“the Report”).

1 - 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.
- the data reported is meaningful and consistent with the definitions, scope and boundaries stated in these Reporting Criteria.
- any specific, material exclusions are stated and explained.
- we use consistent data scope and methodologies year-to-year and between our historical ‘base-year’ (2008) and subsequent years - to provide accurate and transparent performance comparison over time; and that any material changes in data scope or measurement methodologies versus the previous reporting year, or the base year, are made clear.
- we are clear regarding the use of any assumptions we make and regarding our measurement and calculation methods.
- we report transparently such that the Report’s users can have confidence in the integrity of the data and information we report.

Uncertainty and estimates, assumptions and extrapolations

We have sought to capture all relevant data globally and to avoid the use of estimates, assumptions and extrapolations.

We are not aware of any estimates, assumptions or extrapolations used in relation to the CR data presented in the Report that are material to data quality.

Restatement of reported data

We periodically open / acquire or close / sell manufacturing, R&D and office facilities in line with business requirements; we also undertake year-on-year changes in our reporting processes and procedures to continually improve those CR reporting processes and procedures.

As appropriate to maintain or improve the accuracy and / or comparability of data and performance trends between years and / or with the historical base-year of 2008, and / or where any variance in prior years data has been identified, we restate that data in the Report.

We include the following restated data in the current Report for 2016:

- Total number of employees and community involvement spend data for 31st March 2015 is restated to report these on an equity (as opposed to proportionate) basis, in line with the change to a financial equity reporting basis in the Annual Report 2016. and for those data for 31st March 2016.

2 - Reporting boundaries

The reporting boundaries used in the Report are as follows:

2.1 Safety and environmental data

- We report safety and environmental performance by calendar year, i.e. 1 January to 31 December 2015, because we are required to do so for regulatory purposes, such as EPA and OSHA reporting in the US.
- We report safety data from Tate & Lyle-owned and joint-venture manufacturing facilities, and from our offices and other facilities (e.g. research & development centres), worldwide.
- We report environmental data from qualifying Tate & Lyle-owned and joint-venture manufacturing facilities worldwide. Qualifying facilities - for which data is reported - comprise those facilities where 2014 energy use comprised an amount equal to or greater than 0.05% of the 2014 Group energy use; the sum of all facilities' data thereby excluded comprises <1% of the 2014 Group energy use, arising from a few small manufacturing facilities. These exclusions are not material to the environmental performance of the Group either individually or in total.

Unless otherwise stated, the rule applied concerning data from site acquisitions / sites being opened or restarted is:

- Safety data is included from the date of purchase / operation of a new facility (e.g. data from a manufacturing facility purchased in March is included from the date of purchase).
- Environmental data is included within our external reporting scope for the first full calendar year of its operation under our ownership / control (e.g. data from a manufacturing facility purchased in March 2011 would be included from the 1st January 2012), and we start externally reporting that data when we have two full years of environmental performance data reported through our internal environmental reporting system; to better assure data accuracy. Therefore:
 - for our McIntosh, Alabama manufacturing facility which we reopened in March 2012, we started reporting environmental performance data in our Annual Report 2015, since we then had two full calendar years of operational data (i.e. for 2013 and 2014).
 - for our Kimstad, Sweden and Tate & Lyle Howbetter joint venture, China facilities - both acquired in calendar year 2013; we include safety performance data starting with calendar year 2013 in the Report; and we will start reporting environmental performance data for Kimstad once we have two full years of operational data (i.e. in our Annual Report 2017, providing environmental data for 2016).

Unless otherwise stated, the rule applied concerning data from site disposals / closures is:

- Environment: data is included up until the last full month of ownership / control (e.g. data from a manufacturing facility sold in November would be included to the end of October).
- Safety: data is included up until the date of sale / closure, as far as practical (e.g. data from a manufacturing facility sold in March would be included up until the date of sale).
- Employee: data, as held in the Company's Human Resources database, is included as at the 31st March of the year being reported (e.g. data from a manufacturing facility during March of that year would not be included).

2.2 Employee and community involvement data

- We report employee and community involvement performance by financial year, i.e. 1 April 2015 to 31 March 2016.
- Employee data comprises Tate & Lyle employees and a percentage share of joint venture employees in line with the percentage of those businesses that we own (see Note 40 of the Report), as held in the Company's Human Resources database; with the exception of gender data where we report joint venture gender percentages at full share.
- Community involvement data comprises community involvement spend in British Pounds (£) at Tate & Lyle-owned operations and a percentage share of spend at joint venture manufacturing facilities in line with the percentage of those businesses that we own (see Note 40 of the Report).

3 - Reporting specifics and methodology

3.1 – Employee data

Parameter: Employees by business unit and geography

- Definition: The percentage of employees by business unit and geography, amongst all employees globally, on the last day of the Company's financial year (31st March).
- Scope: All full or part-time permanent employees (i.e. excludes contract employees): comprising Tate & Lyle employees and a percentage share of joint venture employees in line with the percentage of those businesses that we own (see Note 40 in the Report), as held in the Company's Human Resources database.
- Units: Percentage (%)
- Method: Percentage calculated as the number of employees in the business unit / geography, divided by the total number of employees to give a percentage of the total population for which data is reported.
- Source: The Company's global Human Resources database system.

Parameter: Gender diversity

- Definition: The percentage of female employees on the Board of Directors, among Senior Managers and Statutory Directors, and amongst All Employees of the Company, on the last day of the Company's financial year (31st March).
- Scope: All full or part-time permanent employees (i.e. excludes contract employees): comprising Tate & Lyle employees and joint venture employees, as held in the Company's Human Resources database; with joint venture employees gender counted at full-share. With the exception that data for All Employees of the Company excludes joint venture employees.
- Method: Percentage - calculated as the number of female employees divided by the total number of employees to give a percentage of the total population for which data is reported (i.e. on the Board of Directors, among Managers and Statutory Directors, and amongst All Employees of the Company).
- Source: The Company's global Human Resources database system.

3.2 – Safety data

Parameter: Recordable incident rate

- Definition: the number of work-related injuries requiring treatment beyond first aid per 200,000 hours worked in the calendar year, including: full-, part-time and contracted temporary employees of the Company whilst working for the Company; and, contractors undertaking work at Company facilities. This includes work-related travel but excludes travel to and from an employee's normal place of work.
- Scope: Covers full-, part-time and contracted temporary employees of the Company whilst working for the Company; and, contractors undertaking work at Company facilities; across Tate & Lyle-owned and joint-venture manufacturing facilities, and from our offices and other facilities (e.g. research and development centres), worldwide.
- Units: The number of work-related injuries and illnesses that required medical treatment beyond first aid, multiplied by 200,000 and divided by the total hours worked in the calendar year.
- Source: Global, facility-level monthly health & safety reporting; and, global, facility-level annual H&S data reporting / assurance process.

Parameter: Lost-work case rate

- Definition: the number of work-related injuries that resulted in lost-work days per 200,000 hours worked in the calendar year, including: full-, part-time and contracted temporary employees of the Company whilst working for the Company; and, contractors undertaking work at Company facilities. This includes work-related travel but excludes travel to and from an employee's normal place of work.
- Scope: Covers full-, part-time and contracted temporary employees of the Company whilst working for the Company; and, contractors undertaking work at Company facilities; across Tate &

Lyle-owned and joint-venture manufacturing facilities, and from our offices and other facilities (e.g. research and development centres), worldwide.

- **Units:** The number of work-related injuries and illnesses that resulted in days away from work, multiplied by 200,000, and divided by the total hours worked in the calendar year.
- **Source:** Global, facility-level monthly health & safety reporting; and, global, facility-level annual H&S data reporting / assurance process.

3.3 – Environmental data

Parameter: Energy use

- **Definition:** energy use at qualifying (as per the boundaries in section 2 of these Criteria) Tate & Lyle-owned and joint-venture manufacturing facilities worldwide.
- **Units:** Giga Joules (GJ).
- **Scope:** energy consumed within the calendar year at qualifying Tate & Lyle-owned and joint-venture manufacturing facilities worldwide; including the energy consumed by on-site Combined Heat and Power (CHP) plants, but excluding any electricity generated by those on-site CHP plants sold externally to third parties; and, including on-site transport (e.g. fork lift trucks). Includes energy from biomass fuel sources, except for biogas / biofuel generated on-site (for example, through anaerobic waste water treatment).
- **Method:** Energy data is collected using a commercially available web-based Environmental, Safety & Quality (ESQ) reporting system. To ensure consistency with invoiced 3rd-party data sources, electrical energy and fuel usage can be entered in units as invoiced. This is then converted to gigajoules GJ using ISO (International Standard Organisation) unit conversion factors.
- **Source:** Global, facility-level monthly / quarterly reporting; and, global, facility-level annual reporting / internal assurance process. Data is taken primarily from 3rd party invoices (or in their absence, from calibrated meter readings).

Parameter: Primary carbon footprint

- **Definition:** Carbon dioxide equivalent (CO₂e) emissions arising from primary energy use and purchased electricity and steam at qualifying (as per the boundaries in section 2 of these Criteria) Tate & Lyle-owned and joint-venture manufacturing facilities worldwide (see Energy use, the above), in line with the GHG Protocol Corporate Accounting and Reporting Standard – Revised Edition (WRI & WBCSD, 2004).
- **Units:** Tonnes CO₂e.
- **Scope:** Scope 1 and Scope 2 CO₂e emissions from energy use at qualifying Tate & Lyle-owned and joint-venture manufacturing facilities worldwide within the calendar year. Scope 3 emissions (e.g. from the transportation of products to customers), and emissions from administration and other non-manufacturing facilities, are excluded from this metric. Fuel types included for Scope 1 Emissions carbon calculation include natural gas, gasoline / petrol, gas/diesel oil, residual fuel oil, liquefied petroleum gas (LPG) and coal.
- **Method:** Calculated by multiplying the reported energy quantities in kWh by the conversion factors derived from the most recent currently available international sources outlined below.
- **Source:** Global, facility-level monthly / quarterly reporting; and, global, facility-level annual reporting / internal assurance process. CO₂e emissions are calculated using internationally recognised methodology of the GHG Protocol Corporate Accounting and Reporting Standard - Revised Edition (WRI / WBCSD, 2004). We use applicable emissions factors, as appropriate, from the GHG Protocol, the International Energy Authority (IEA), the US Environmental Protection Agency (EPA) 40CFR Part 98 Mandatory Greenhouse Gas Reporting requirements, and the US EPA's Emissions and Generation Integrated Database (eGRID).

Parameter: Group greenhouse gas (GHG) emissions

- **Definition:** Group greenhouse gas (GHG) emissions arising from (a) the combustion of fuel, and (b) the operation of any facility, at qualifying (as per the boundaries in section 2 of these Criteria) Tate & Lyle-owned and joint-venture manufacturing facilities worldwide, in line with Part 7 (Disclosures concerning greenhouse gas emissions) of The Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013, and the GHG Protocol Corporate Accounting and Reporting Standard - Revised Edition (WRI & WBSD, 2004).
- **Units:** Tonnes of carbon dioxide equivalent (tCO₂e).
- **Scope:** A tonne of carbon dioxide equivalent (CO₂e) comprises one metric tonne of carbon dioxide or an amount of any other greenhouse gas (GHG) with an equivalent global warming potential, calculated consistently with international carbon reporting practice; where a GHG comprises any of the following: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆).
Reported:
 - a) From the combustion of fuel and operations of facilities (Scope 1);
 - b) From electricity, heat, steam and cooling purchased (Scope 2);
 - c) In total;
 - d) At an intensity ratio of tonnes of carbon dioxide equivalent (tCO₂e) per tonne of production.
- **Method:** Calculated in line with Part 7 (Disclosures concerning greenhouse gas emissions) of The Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013, and the GHG Protocol Corporate Accounting and Reporting Standard - Revised Edition (WRI & WBSD, 2004); and with reference to the Environmental Reporting Guidelines: including mandatory greenhouse gas emissions reporting guidance (DEFRA, June 2013 - as updated October 2013).
- **Source:** Global, facility-level monthly / quarterly reporting; and, global, facility-level annual reporting / internal assurance process; with annual, central review of Group GHG emissions sources for which reporting is required. CO₂e emissions are calculated using internationally recognised methodology of the GHG Protocol Corporate Accounting and Reporting Standard – Revised Edition (WRI / WBCSD, 2004). We use applicable emissions factors, as appropriate, from the GHG Protocol, the International Energy Authority (IEA), the US Environmental Protection Agency (EPA) 40CFR Part 98 Mandatory Greenhouse Gas Reporting requirements, and the US EPA's Emissions and Generation Integrated Database (eGRID).

Parameter: Water use

- **Definition:** water use at qualifying (as per the boundaries set in section 2 of these Criteria) Tate & Lyle-owned and joint-venture manufacturing facilities worldwide.
- **Units:** Cubic Metres.
- **Scope:** process water consumed on-site, within the calendar year. Where process and non-process water uses are metered separately it includes only the water consumed in the process; where process and non-process water uses are metered together, both will be included in the data. It includes water both from off-site and any on-site sources (e.g. wells or bore holes). Cooling tower make-up water is considered to be consumed in the process. Non-contact cooling water is included unless the non-contact cooling water is returned to its original source (i.e. taken from a river and returned to the same river).
- **Method:** this data is collected using a commercially available web-based Environmental, Safety & Quality (ESQ) reporting system. To ensure consistency with invoiced 3rd-party data sources, the value can be entered in either cubic meters (m³) or gallons.
- **Source:** Global, facility-level monthly / quarterly reporting; and, global, facility-level annual reporting / internal assurance process. Data is taken primarily from 3rd party invoices (or in their absence, from calibrated meter readings) in the case of water supplied from off-site sources. Data for on-site sources (e.g. wells or bore-holes) is taken from calibrated meter readings.

Parameter: Waste to landfill

- **Definition:** waste going to landfill from qualifying (as per the boundaries set in section 2) Tate & Lyle-owned and joint-venture manufacturing facilities worldwide.
- **Units:** Metric Tonnes.
- **Scope:** Waste to landfill is classified as all waste leaving a facility during the calendar year, including hazardous waste, and that is sent directly to an off-site facility for landfill disposal, or for treatment (e.g. incineration) prior to landfill disposal. Waste streams generated by process or process support operations at infrequent intervals are included (e.g. expired chemicals, spent process media, off-specification product returns, off-specification in-process materials, and cleaning materials). Construction and demolition waste are excluded where it is the contractor's responsibility, by contract, to manage that waste. In addition, data excludes material which is recycled or re-used off-site (e.g. wastewater treatment sludge used for composting or soil amendments), and boiler ash.
- **Method:** Data is reported using a commercially available web-based Environmental, Safety & Quality (ESQ) reporting system. To ensure consistency with invoiced 3rd-party data sources data can be entered in the units as invoiced. Group-wide standard conversion factors are used.
- **Source:** Global, facility-level monthly / quarterly reporting; and, global, facility-level annual reporting / internal assurance process. Data is taken primarily from 3rd party invoices for waste transfer and disposal off-site; or in their absence, from internal waste shipment records with the weight taken from weighbridges where available. This data can include some estimates of waste volumes where weighbridges are not readily available.

Note:

We report environmental data normalised by tonnes of production. Metric tonnes of production comprises the total calendar year amount of:

- a) at corn wet milling facilities: the volume of corn input into the production process ('the grind'); for reasons of historical regional practices, for data prior to 2013 in North America these are reported as the volume of corn before cleaning and in Europe these are reported as the volume of corn after cleaning. Beginning in 2013 all corn is reported as the volume before cleaning. Due to the complexity of corn wet milling facility manufacturing processes and product / co-product outputs, the grind volume is the standard measure of manufacturing volume used across our corn wet mills and those of our joint ventures globally.
- b) at all other facilities (i.e. non corn wet milling facilities): the volume of product exiting the manufacturing process and shipped to customers.

These data are derived from site-level process control software and accounting systems.

3.4 – Community data

Parameter: Community spend by area

- **Definition:** the percentage of community spend by community involvement focus area - Education, Well-being and Environment (and Other) - by Tate & Lyle operations worldwide, and a percentage share of joint venture community involvement spend in line with the percentage of those businesses that we own (see Note 40 in the Report), in the financial year to end March 2015.
- **Units:** Great Britain Pounds (£).
- **Scope:** direct charitable spending, in Great Britain pounds (£), to UK and US registered and other charities / charitable organisations during the calendar year.
- **Method:** Data is collected annually using an established community involvement reporting form in local currency, and converted to GB pounds at Group-level using appropriate Company internal conversion rates.
- **Source:** Global, annual Company functional and facility-level reporting.

4 – Contact details

Any queries or comments regarding these Reporting Criteria can be provided to:

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5 – Issue date

May 2016