

## Corporate Responsibility Reporting Criteria – 2018 Annual Report

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 2018 (“the 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 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
- Any specific, material exclusions are stated and explained
- The use of any assumptions we make and regarding our measurement and calculation methods are stated.
  - 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, close, acquire or divest manufacturing, R&D and office facilities based on business requirements. 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, the data is restated in the Report.

### Reporting Boundaries

The reporting boundaries used in the Report are as follows:

#### **Environment, Health and Safety Data**

- Environmental, Health and Safety related performance data are reported by calendar year (i.e. 1 January through 31 December 2017), to ensure regulatory compliance with U.S. EPA and OSHA reporting requirements.
- Safety performance data is reported from Tate & Lyle-owned and joint-venture manufacturing facilities, offices and other facilities (i.e. research & development centers), globally.
- Safety performance data are collected for all Tate & Lyle employees, regardless of the duration of employment, and contractors. This includes joint-ventures where Tate & Lyle owns  $\geq 50\%$ .
- Environmental performance data are reported from qualifying Tate & Lyle-owned and joint-venture manufacturing facilities globally.
  - Qualifying facilities - for which data is reported include facilities where 2015 energy use comprised an amount equal to or greater than 0.05% of the 2015 Group energy use; the sum of all facilities’ data thereby excluded comprises  $< 1\%$  of the 2015 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.

#### **Site Openings, Restarts and Acquisitions**

Unless otherwise stated, the following principles are applied:

- Safety data is included from the date of purchase or operation state date of a new facility
- Safety data is included in the external reporting scope for the first full calendar year of its operation under our ownership / control (i.e. data from a manufacturing facility purchased in March 2017 would be included from 1 January 2018).
- Environmental data is externally reported after it has been internally collected for two full years through our metrics reporting system to better ensure data accuracy.
  - Environmental performance data for Nantong and Gemacom will be externally reported after two full years of operational data is recorded (i.e. Nantong in our Annual Report 2018 and Gemacom in Annual Report 2019).

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## **Site Closings and Divestitures**

Unless otherwise stated, the following principles are applied:

- Safety data is included up until the date of sale and/or closure, as far as practical
- Environmental data is included up until the last full month of ownership / control
- Employee: data, as held in the Company's Human Resources database, is included as of 31 March of the year being reported

## **Employee and Community Involvement Data**

- We report employee and community involvement performance by financial year (1 April 2017 through 31 March 2018)
- Employee data comprises Tate & Lyle employees and joint venture employees for which Tate & Lyle owns >50% of the operation as held in the Company's Human Resources database, except for gender data for which joint venture percentages are reported 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.

## **Reporting Details and Methodology**

### **Employee Data**

- 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 (31 March).
  - **Scope:** All full, part-time permanent employees and contractors who are in the Tate & Lyle payroll system. This includes joint venture employees for which Tate & Lyle owns >50% of the operation as held in the Company's Human Resources database.
  - **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 are reported.
  - **Source:** The Company's global Human Resources database system.
- 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 (31 March).
  - **Scope:** All full or part-time permanent employees (excludes contract employees): comprising Tate & Lyle employees and joint venture employees for which Tate & Lyle owns >50% of the operation as held in the Company's Human Resources database.
  - **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
  - **Source:** The Company's global Human Resources database system.

### **Community Data**

- Community Spend by Area
  - **Definition:** The percentage of spend by community involvement focus area, including, but not limited to Health, Hunger, Education, Environment, etc. by Tate & Lyle operations globally, and a percentage share of joint venture community involvement spend in line with the percentage of those businesses that we own in the Company's financial year (end 31 March).
  - **Scope:** Charitable spending, in, to UK and US registered and other charities/charitable organizations during the fiscal year
  - **Unit:** British Pounds (£)
  - **Method:** Data is collected annually using an established community involvement reporting form in local currency, and converted to GB pounds using appropriate Company internal conversion rates.
  - **Source:** Global, annual Company functional and facility-level reporting.

### **Safety Data**

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

- **Scope:** Includes all full-, part-time and contracted temporary employees of the Company while working for the Company; and, contractors undertaking work at Company facilities globally. This includes work-related travels, but excludes travel to/from their place of work.
  - **Method:** 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.
  - **Source:** Safety data are recorded by incident and reported at the facility, organization and business levels. In 2018, the company began to implement Gensuite as the system of record for EHS related data replacing the Environmental, Safety and Quality (ESQ) system; both systems are web-based and commercially available. EHS related incidents are communicated immediately upon entry, summarized weekly, reviewed with Senior Leaders monthly and internally audited.
- **Lost Workday Case Rate (also referred to as the Lost Time Case Rate)**
    - **Scope:** Includes all full-, part-time and contracted temporary employees of the Company while working for the Company; and, contractors undertaking work at Company facilities globally. This includes work-related travels, but excludes travel to/from their place of work.
    - **Method:** The number of work-related injuries and illness cases as defined by U.S. OSHA recordkeeping requirements that resulted in days away from work multiplied by 200,000 and divided by the total hours worked in the calendar year.
    - **Source:** Safety data are recorded by incident and reported at the facility, organization and business levels in the ESQ system in 2017 and transitioned to Gensuite in 2018. EHS related incidents are communicated immediately upon entry, summarized weekly, reviewed with Senior Leaders monthly and internally audited.

## **Environmental Data**

- **Energy Use**
  - **Definition:** Energy use at qualifying (per the Reporting Boundaries section above) Tate & Lyle-owned and joint-venture manufacturing facilities globally.
  - **Scope:** Energy consumed within a calendar year at qualifying Tate & Lyle-owned and joint venture manufacturing facilities globally; 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 wastewater treatment).
  - **Units:** Giga Joules (GJ)
  - **Method:** Electricity and fuel usage is based on units invoiced and is converted to GJ using the International Standard Organization (ISO) unit conversion factors.
  - **Source:** Usage is primarily based on third party invoices or in their absence from calibrated meter readings. Data was recorded in the ESQ system in 2017 and transitioned to Gensuite in 2018. Energy usage is reviewed regularly and audited both internally and externally on an annual basis.
- **Primary Carbon Footprint**
  - **Definition:** Carbon dioxide equivalent (CO<sub>2</sub>e) emissions arising from primary energy use and purchased electricity and steam at qualifying (per the Reporting Boundaries section above) Tate & Lyle-owned and joint-venture manufacturing facilities globally, in line with the GHG Protocol Corporate Accounting and Reporting Standard – Revised Edition (WRI & WBCSD, 2004).
  - **Scope:** Scope 1 and Scope 2 CO<sub>2</sub>e emissions from energy use at qualifying Tate & Lyle-owned and joint-venture manufacturing facilities globally within the calendar year. Scope 3 emissions 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.
  - **Units:** Tonnes CO<sub>2</sub>e
  - **Method:** Calculated by multiplying the reported energy quantities in kWh by the conversion factors derived from the most recent currently available international sources as outlined below.
  - **Source:** CO<sub>2</sub>e emissions are calculated using internationally recognized methodology of the GHG Protocol Corporate Accounting and Reporting Standard - Revised Edition (WRI / WBCSD, 2004). Applicable emissions factors are used, as appropriate, from the GHG Protocol, the International Energy Authority (IEA), the U.S. Environmental Protection Agency (EPA) 40CFR Part 98 Mandatory Greenhouse Gas Reporting requirements, and the US EPA's Emissions and Generation Integrated Database

(eGRID). Data was recorded in the ESQ system in 2017 and transitioned to Gensuite in 2018. CO<sub>2</sub>e emissions are reviewed regularly and audited both internally and externally on an annual basis.

- 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 (per the Reporting Boundaries section above) Tate & Lyle-owned and joint-venture manufacturing facilities globally.
  - Scope: A tonne of carbon dioxide equivalent (CO<sub>2</sub>e) 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 (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>). 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 (tCO<sub>2</sub>e) per tonne of production
  - Units: tCO<sub>2</sub>e
  - 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: CO<sub>2</sub>e emissions are calculated using internationally recognized methodology of the GHG Protocol Corporate Accounting and Reporting Standard – Revised Edition (WRI / WBCSD, 2004). Applicable emissions factors are used, as appropriate, from the GHG Protocol, the International Energy Authority (IEA), the U.S. Environmental Protection Agency (EPA) 40CFR Part 98 Mandatory Greenhouse Gas Reporting requirements, and the US EPA's Emissions and Generation Integrated Database (eGRID). Data was recorded in the ESQ system in 2017 and transitioned to Gensuite in 2018. CO<sub>2</sub>e emissions are reviewed regularly and audited both internally and externally on an annual basis.
  
- Water Use
  - Definition: Water use at qualifying (per the Reporting Boundaries section above) Tate & Lyle-owned and joint-venture manufacturing facilities globally.
  - 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 are included in the data. It includes water both from off-site and on-site sources (i.e. wells or boreholes). 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).
  - Units: Cubic meters (m<sup>3</sup>)
  - Method: Water usage is entered based on the invoiced quantities in either cubic meters (m<sup>3</sup>) or gallons to ensure accuracy. The data is converted to m<sup>3</sup> by the system.
  - Source: Usage is primarily based on third party invoices or in their absence from calibrated meter readings for water supplied from off- or on-site sources. Data is recorded in the ESQ system in 2017 and transitioned to Gensuite in 2018. Water usage is reviewed regularly and audited both internally and externally on an annual basis.
  
- Waste to Landfill
  - Definition: Waste going to landfill generated at qualifying (per the Reporting Boundaries section above) Tate & Lyle-owned and joint-venture manufacturing facilities globally.
  - Scope: All waste leaving a facility during the calendar year, including hazardous waste and that sent directly to an off-site facility for landfill disposal, or for treatment (i.e. incineration) prior to landfill disposal. This metrics includes waste streams generated by process or process support operations at infrequent intervals (e.g. expired chemicals, spent process media, off-specification product returns, off-specification in-process materials, and cleaning materials). Waste excluded from this metric include construction and demolition waste where it is the contractor's responsibility, by contract, to manage that waste and material that is recycled or re-used offsite (e.g. wastewater treatment sludge used for composting or soil amendments) and boiler ash.
  - Units: Tonnes
  - Method: Waste to landfill data is entered based on the invoiced quantities to ensure accuracy. The data is converted to tonnes by the system.

- **Source:** Waste generation 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. Data is recorded in the ESQ system in 2017 and transitioned to Gensuite in 2018. Waste generation is reviewed regularly and audited both internally and externally on an annual basis.
- **Environmental Data Notes:**
  - Environmental data is normalized 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. All corn is reported as the volume before cleaning. Due to the complexity of corn wet milling facility manufacturing processes and product/co-product output, the grind volume is the standard measure of manufacturing volume used across our corn wet mills and joint ventures globally.
    - b) All other facilities excluding Sweden (i.e. non-corn wet milling facilities): The volume of product exiting the manufacturing process and shipped to customers. Data is derived from site-level process control software and accounting systems.

### **Contact Details**

Any queries or comments regarding these Reporting Criteria can be provided to [sustainability@tateandlyle.com](mailto:sustainability@tateandlyle.com)

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