

# Welcome to your CDP Climate Change Questionnaire 2019

## C0. Introduction

### C0.1

#### (C0.1) Give a general description and introduction to your organization.

Founded in 1912, ITW (NYSE: ITW) is a global industrial company built around a differentiated and proprietary business model. The company's seven industry-leading segments leverage the ITW Business Model to generate solid growth with best-in-class margins and returns in markets where highly innovative, customer-focused solutions are required. ITW's approximately 48,000 dedicated colleagues around the world thrive in our decentralized, entrepreneurial culture. In 2018, the company achieved revenues of \$14.8 billion, with roughly half coming from outside North America. To learn more, please visit [www.itw.com](http://www.itw.com).

### C0.2

#### (C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Row 1	January 1, 2018	December 31, 2018	No

### C0.3

#### (C0.3) Select the countries/regions for which you will be supplying data.

- Argentina
- Australia
- Belgium
- Brazil
- Bulgaria
- Canada
- Chile
- China
- China, Hong Kong Special Administrative Region
- Colombia
- Costa Rica
- Croatia
- Czechia

Denmark  
Finland  
France  
Germany  
Hungary  
India  
Ireland  
Italy  
Japan  
Malaysia  
Mexico  
Netherlands  
New Zealand  
Philippines  
Poland  
Portugal  
Republic of Korea  
Russian Federation  
Slovakia  
Slovenia  
South Africa  
Spain  
Sweden  
Switzerland  
Taiwan, Greater China  
Thailand  
United Arab Emirates  
United Kingdom of Great Britain and Northern Ireland  
United States of America

## C0.4

**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

USD

## C0.5

**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.**

Operational control

## C1. Governance

### C1.1

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

#### C1.1a

**(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.**

Position of individual(s)	Please explain
Board Chair	ITW's management, subject to oversight by our Board of Directors, structures, monitors and adjusts ITW's sustainability efforts in a manner that is consistent with its core values and that best serves the interests of the Co. and its stakeholders. The Board is responsible for overall risk oversight of the Company, which includes ITW's strategic priorities, policies and goals related to environmental, social, supply chain and governance matters. ITW's Board receives periodic updates regarding ITW's CSR strategy, initiatives and progress. Also, ITW has a Director of Environmental, Health, Safety & Sustainability with day-to-day environmental-related responsibilities, including overseeing the execution of ongoing environmental, safety and reg. compliance initiatives. Mgt. & the Board are dedicated to continuing to advance ITW's commitment to global environmental sustainability and recognize the value in emissions disclosures and related programs. The Board is chaired by the CEO/Chairman.
Chief Executive Officer (CEO)	ITW's management, subject to oversight by our Board of Directors, structures, monitors and adjusts ITW's sustainability efforts in a manner that is consistent with its core values and best serves the interests of the Company and its stakeholders. The Board is responsible for overall risk oversight of the Company, which includes ITW's strategic priorities, policies and goals related to environmental, social, supply chain and governance matters. ITW's Board receives periodic updates regarding ITW's CSR strategy initiatives and progress. Also, ITW has a Director of Environmental, Health, Safety & Sustainability with day-to-day environmental-related responsibilities, including overseeing the execution of ongoing environmental and reg. compliance initiatives. Management and the Board are dedicated to continuing to advance ITW's commitment to global environmental sustainability and recognize the value in emissions disclosures and related programs. The Board is chaired by the CEO/Chairman.

## C1.1b

**(C1.1b) Provide further details on the board's oversight of climate-related issues.**

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Overseeing major capital expenditures, acquisitions and divestitures	The Board is responsible for overall risk oversight of the Company, which includes ITW's strategic priorities as well as policies and goals related to environmental matters, including climate change.  ITW's Board receives periodic updates regarding the Company's CSR strategy, initiatives and progress.

## C1.2

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Other, please specify Discusses and guides strategy periodically and provides oversight 	Annually
Other C-Suite Officer, please specify Vice Chairman	Other, please specify Discusses and guides strategy and assesses climate-related risks and opportunities	Annually
Other, please specify Vice President/GM	Both assessing and managing climate-related risks and opportunities 	Not reported to the board
Other, please specify	Other, please specify Provides oversight	Annually

Director Environment, Health, Safety & Sustainability	言论 <sup>3</sup>	
Other, please specify VP of Sourcing & EHSS	Assessing climate-related risks and opportunities	Annually
Other, please specify General Counsel, Secretary	Managing climate-related risks and opportunities	Annually

言论<sup>1</sup>The CEO is Chairman of the Board and provides oversight of climate-related risks and opportunities of the business.

言论<sup>2</sup>Climate-related risks and opportunities are assessed and managed at the business level. This includes region specific requirements and issues.

言论<sup>3</sup>Oversees the execution of ongoing environmental and regulatory compliance initiatives, including climate change.

## C1.2a

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

ITW's management, subject to oversight by our Board of Directors, structures, monitors and adjusts ITW's sustainability efforts in a manner that is consistent with its core values and that best serves the interests of the Company and all ITW stakeholders. Each year, senior management reviews the long-range plans of our segments/divisions. These plans consider, as appropriate, long-term sustainability implications and the ability to meet customer needs related to sustainability and clean technology.

In addition, ITW has a Director of Environmental, Health, Safety & Sustainability (EHSS Director) with day-to-day environmental-related responsibilities, including overseeing the execution of ongoing environmental, safety and regulatory compliance initiatives, including climate change. Furthermore, management and the Board are dedicated to continuing to advance ITW's commitment to global environmental sustainability and recognize the value in emissions disclosures and related environmental programs.

## C1.3

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

No

## C2. Risks and opportunities

### C2.1

**(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.**

	From (years)	To (years)	Comment
Short-term	0	1	No comment
Medium-term	2	4	No comment
Long-term	5	100	No comment

### C2.2

**(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.**

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

### C2.2a

**(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.**

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Annually	3 to 6 years	<p>Each year, senior management reviews the long-range plans of our segments/divisions. These plans consider, as appropriate, long-term sustainability implications and the ability to meet customer needs related to sustainability and clean technology.</p> <p>As part of their long-range plans, our businesses focus on long-term sustainability as appropriate to meet customer needs relative to clean technology (clean-tech), including water conservation, renewable energy use and emissions reduction.</p>

## C2.2b

### (C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

Each year, senior management reviews the long-range plans of our segments/divisions. These plans consider, as appropriate, long-term sustainability implications and the ability to meet customer needs related to sustainability and clean technology. As part of their long-range plans, our businesses focus on long-term sustainability as appropriate to meet customer needs relative to clean technology (clean-tech), including water conservation, renewable energy use and emissions reduction.

## C2.2c

### (C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Our businesses consider the environmental regulatory requirements related to the products and services they provide. A significant amount of ITW business is related to various regulations to improve the eco-efficiency of products. ITW offers technology to meet these regulations.
Emerging regulation	Relevant, always included	Our businesses also consider emerging regulations and how they may create risks and opportunities related to the products and services they offer. New regulations inform our product innovation process as needed.
Technology	Relevant, always included	Our businesses are technology based and seek to innovate to assist in solving customer problems-including those related to climate change opportunities.
Legal	Relevant, always included	Our businesses [always] consider the legal implications of climate change as they consider long-range plans.
Market	Relevant, always included	Our businesses [always] consider the market issues related to climate change and how they may affect the businesses going forward.
Reputation	Relevant, always included	Our businesses [always] consider the reputational impact of climate change activities in their long-range plans.
Acute physical	Relevant, always included	ITW uses a risk-based approach to identify and assess physical risks to our global operations. We review areas of more significant exposure to ensure we are taking the proper steps to minimize exposure. Most business units also have formal emergency response plans and many have developed business continuity plans

		that address physical threats and their planned responses. ITW's wide distribution of diversified operations, locations and end markets reduces the risk of severe weather conditions to our overall enterprise.
Chronic physical	Not relevant, explanation provided	We have reviewed our global operations and do not believe that we have any operations with chronic physical risks.  Because of the nature of our business, our operations and material procurement are not impacted by changes in temperature, drought or land degradation. Most of our facilities are inland and not expected to be impacted by rising sea levels.
Upstream	Relevant, always included	Upstream activities are considered by our businesses as they assess customer engagement related to climate change activity in their long-range plans.
Downstream	Relevant, always included	Downstream supply chain activities are regularly monitored, and climate change risks and opportunities are considered in long-range planning.

## C2.2d

### (C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

Each year, senior management reviews the long-range plans of our segments/divisions. The 87 divisions of ITW each take responsibility for their own individual profiles. These plans consider, as appropriate, long-term sustainability implications and the ability to meet customer needs related to sustainability and clean technology. As part of their long-range plans, our businesses focus on long-term sustainability as appropriate to meet customer needs relative to clean technology (clean-tech), including water conservation, renewable energy use and emissions reduction.

## C2.3

### (C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

No

## C2.3b

### (C2.3b) Why do you not consider your organization to be exposed to climate-related risks with the potential to have a substantive financial or strategic impact on your business?

	Primary reason	Please explain
Row 1	Risks exist, but none with potential to have a	Although we face inherent risks driven by changes in climate change related regulation, these risks are not expected to generate

	<p>substantive financial or strategic impact on business</p> <p>a substantive change in our business operations, revenue or expenditure. ITW does not generally engage in heavy manufacturing and its decentralized structure with many operating units in geographically diverse locations and end markets help mitigate these risks. Examples of climate change risks include:</p> <p>Fuel/energy taxes and regulations - We currently participate in the UK's Carbon Reduction Commitment Scheme, it affects less than 10% of ITW's businesses and the annual costs are not material to ITW.</p> <p>ITW is impacted by the Energy Efficiency Directive in the European Union and Energy Savings Opportunity Scheme in the UK. where approximately 28% of the 2018 operating revenue was generated. Although this portion of revenue is significant, the costs associated with the mandated energy audits are not material to ITW and do not pose a substantive risk.</p>
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## C2.4

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

### C2.4a

**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

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**Identifier**

Opp1

**Where in the value chain does the opportunity occur?**

Customer

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development of new products or services through R&D and innovation

**Type of financial impact**

Increased revenue through demand for lower emissions products and services

**Company-specific description**

ITW manufactures numerous products that enable our customers to reduce GHG emissions, energy consumption and operating costs. One example is the battery powered ground power unit (GPU) developed by ITW GSE. The GPU provides electricity to power an aircraft's electrical system while parked at a gate. The battery powered GPU offers an energy efficient alternative to traditional diesel-powered units and is estimated to reduce GHG emissions by 90% over a year.

**Time horizon**

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

This is proprietary information to ITW and while this product is financially positive to our portfolio, we are not sharing this information publicly.

**Strategy to realize opportunity**

The strategy taken to improve our chances of realizing this opportunity is the ITW Customer-Back-Innovation approach. We engage with our customers to provide effective solutions to regulatory driven pain points as they relate to stricter emissions laws being promulgated throughout the world, and other customer changing needs.

**Cost to realize opportunity**

0

**Comment**

This is proprietary information to ITW and while this product is financially positive to our portfolio, we do not share this cost information publicly.

## C2.5

### (C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	<b>Impact</b>	<b>Description</b>
Products and services	Impacted	Climate change has created opportunities for the development of new products that reduce GHG emissions and energy consumption for our customers. Examples include battery-operated ground power units for aircraft, energy and water efficient commercial kitchen appliances, and plastic automotive components. Each of the products listed have global opportunities.
Supply chain and/or value chain	Not yet impacted	ITW is a global, diversified company, with operations in diverse locations. Our businesses seek out and engage suppliers who may be able to offer insight and assistance as we seek to develop our next generation products that serve our customers. Additionally, ITW has undertaken, and continues to undertake, reviews of our supply chain where we may have opportunity to streamline the supply chain and reduce transportation which supports a reduction in related GHG's.
Adaptation and mitigation activities	Not impacted	ITW is a global, diversified company, with operations in diverse locations. Our structure and diversity of businesses reduce the need for adaptation and mitigation activities.
Investment in R&D	Impacted	Climate change has created opportunities for the research and development of new products that reduce GHG emissions and energy consumption for our customers. Examples include the research of alternative use of vehicle batteries for systems such as our ground power unit for aircraft. Investments in seeking out and developing new more durable plastics for use in automotive applications are also a result of climate change related opportunities as vehicle fuel efficiency requirements increase. The outcomes of this research and development can have global reach.
Operations	Impacted for some suppliers, facilities, or product lines	ITW facilities in the United Kingdom are required by law to have energy use assessments every four years. The goal is to identify cost effective means to improve energy efficiency and reduce GHG emissions.
Other, please specify	We have not identified any risks or opportunities	N/A

## C2.6

**(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.**

	Relevance	Description
Revenues	Impacted for some suppliers, facilities, or product lines	Each of our businesses factors in necessary investments related to changing environment and product opportunities in their long range and annual planning processes.
Operating costs	Impacted for some suppliers, facilities, or product lines	Each of our businesses factors in necessary investments related to changing environment and product opportunities in their long range and annual planning processes.
Capital expenditures / capital allocation	Impacted for some suppliers, facilities, or product lines	Each of our businesses factors in necessary investments related to changing environment and product opportunities in their long range and annual planning processes.
Acquisitions and divestments	Not impacted	Not impacted.
Access to capital	Not impacted	Not impacted
Assets	Not impacted	Not impacted
Liabilities	Not impacted	Not impacted
Other	Not impacted	Not impacted

## C3. Business Strategy

### C3.1

**(C3.1) Are climate-related issues integrated into your business strategy?**

Yes

#### C3.1a

**(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?**

No, and we do not anticipate doing so in the next two years

#### C3.1c

**(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.**

In our decentralized business structure, each of our businesses considers climate related risks and opportunities relative to their unique business. The risk and opportunity profile for each business is different, as they offer unique products or services to a variety of industry segments and customers. For example, in our automotive business segment, the business teams have identified light-weighting and improved fuel economy (including electric vehicles) as two large business opportunities related to a lower carbon economy. The business is investing in engineering and product development that supports alternative designs to take weight out of vehicles and to improve engine or overall vehicle efficiency related to fuel economy.

In our Food Equipment Segment, reducing the energy and water consumption of our products is a primary driver of product development.; our customers require more efficient products. Additionally, we continue to offer and explore other lower GWP refrigerants for our commercial refrigeration equipment.

Each year our businesses create long-range plans that look forward at least five years. In this long-range planning process, the businesses consider applicable risks and opportunities, of which climate-related issues is one area of consideration. The plans are reviewed by senior leadership, including our CEO. While the product strategies of our businesses are unique to each of them, these strategies are informed and guided by overall risk and opportunity assessments, which include climate-related risks and opportunities.

## C3.1g

### (C3.1g) Why does your organization not use climate-related scenario analysis to inform your business strategy?

Climate related scenario analysis is not used today as part of our business strategy as the nature of our business offerings require an overall review of business risks and opportunities. In the risk profile of each of our businesses, climate related risk is relatively low, while other risks require more focus and attention.

## C4. Targets and performance

### C4.1

#### (C4.1) Did you have an emissions target that was active in the reporting year?

No target

### C4.1c

#### (C4.1c) Explain why you do not have emissions target and forecast how your emissions will change over the next five years.

Primary reason	Five-year forecast	Please explain

Row 1	Other, please specify  We will publish a target in 2019.  ①	We anticipate that our emissions will decrease over the next five years, by 10-15%.	The framework to achieve our emissions intensity reduction target will be operationalized at the division level and will focus on reducing energy use and increasing purchase of renewable energy.
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①ITW is a highly-decentralized company and, therefore, believes that sustainability goals and initiatives at ITW are most effectively established and managed “bottom-up” at each of our divisions rather than “top down” from the corporate center. Our corporate social responsibility initiatives are designed to maintain a careful balance between our commitment to the environment and the flexibility required by our Company’s structure.

## C4.2

**(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.**

## C4.3

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

### C4.3a

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	4	
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	29	2,900
Not to be implemented	0	

### C4.3b

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

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**Initiative type**

Energy efficiency: Building services

**Description of initiative**

Other, please specify

Lighting, sensors, heater change, new motor

**Estimated annual CO2e savings (metric tonnes CO2e)**

860

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

459,000

**Investment required (unit currency – as specified in C0.4)**

461,000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

ITW implemented more than 20 individual projects that focused on improving energy efficiency across facilities in Asia, Europe and the US. These projects included lighting retrofits, the addition of timers and sensors, motor upgrades and equipment maintenance.

These projects reduced location-based Scope 2 emissions by approximately 700 t(metric) CO2e. The average payback period is about 2.5 years per project.

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**Initiative type**

Energy efficiency: Processes

**Description of initiative**

Other, please specify

New equipment purchases, process optimization, heat recovery, variable speed drives and equipment maintenance

**Estimated annual CO2e savings (metric tonnes CO2e)**

2,200

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

154,000

**Investment required (unit currency – as specified in C0.4)**

1,620,000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

ITW implemented 10 individual projects that focused on improving energy efficiency across facilities in Asia, Europe and the US. These projects included new process equipment, timers and insulation on equipment, process heat recovery systems, new compressors and improved process equipment maintenance.

These projects reduced location-based Scope 2 emissions by approximately 2,200 t(metric) CO<sub>2</sub>e. The average payback period is about 2 years per project.

## C4.3c

**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Financial optimization calculations	ITW also compares costs and benefits of proposed projects and uses net present value (NPV) calculations as we consider opportunities to improve performance.
Internal finance mechanisms	ITW uses internal finance mechanisms to drive emissions reductions through improving building services such as lighting and process improvements that include equipment upgrades.

## C4.5

**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?**

Yes

## C4.5a

**(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.**

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### **Level of aggregation**

Company-wide

### **Description of product/Group of products**

ITW has a broad base of eco-efficient products that on their own are more energy efficient or enable customers to be more energy efficient or support reduced emissions in other ways by solving customer problems. As an example, ITW Ground Support Equipment has developed a battery-operated Ground Power Unit (GPU) for aircraft to offer as an alternative to diesel powered units. When compared to a diesel engine unit, the battery powered GPU offers customers a 90% reduction in CO<sub>2</sub> emissions over a year's time when operating for 5.5 hours a day. Another example includes light weight products which ITW provides to the auto industry, which contribute to their improved vehicle fuel efficiency. Another example includes increased energy efficiency related to our warewash and refrigeration equipment.

### **Are these low-carbon product(s) or do they enable avoided emissions?**

Avoided emissions

### **Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify

Based on internal product and customer testing.

### **% revenue from low carbon product(s) in the reporting year**

23

### **Comment**

For additional information please visit <https://itw-csr.com>

## C5. Emissions methodology

### C5.1

**(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

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#### **Scope 1**

##### **Base year start**

January 1, 2017

**Base year end**

December 31, 2017

**Base year emissions (metric tons CO<sub>2</sub>e)**

128,824

**Comment**

2017 baseline data has been adjusted to include energy and emissions from additional business locations and emissions from foam filling operations.

**Scope 2 (location-based)**

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**Base year start**

January 1, 2017

**Base year end**

December 31, 2017

**Base year emissions (metric tons CO<sub>2</sub>e)**

549,840

**Comment**

2017 baseline data has been adjusted to include energy and emissions from additional business locations and emissions from foam filling operations.

**Scope 2 (market-based)**

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**Base year start**

January 1, 2017

**Base year end**

December 31, 2017

**Base year emissions (metric tons CO<sub>2</sub>e)**

549,840

**Comment**

2017 baseline data has been adjusted to include energy and emissions from additional business locations and emissions from foam filling operations.

We had not calculated market-based emissions, many of the emissions/residuals we needed were not available. We used the grid average emissions factors/location based to calculate the GHG emissions.

## C5.2

**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.**

Australia - National Greenhouse and Energy Reporting Act

Defra Voluntary 2017 Reporting Guidelines

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

## C6. Emissions data

### C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO<sub>2</sub>e?

**Reporting year**

**Gross global Scope 1 emissions (metric tons CO<sub>2</sub>e)**

134,118

**Start date**

January 1, 2018

**End date**

December 31, 2018

**Comment**

### C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

**Row 1**

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We are reporting a Scope 2, market-based figure

**Comment**

Approximately 8% of the Scope 2 emissions are estimated to eliminate gaps in the reporting. The estimated values are based on the average use of electricity from the facilities.

### C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO<sub>2</sub>e?

**Reporting year**

**Scope 2, location-based**

540,715

**Scope 2, market-based (if applicable)**

538,419

**Start date**

January 1, 2018

**End date**

December 31, 2018

**Comment**

## C6.4

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**

Yes

## C6.4a

**(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.**

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**Source**

The GHG emissions from the stationary combustion of LPG, diesel, gasoline and town gas are not included in the disclosure.

**Relevance of Scope 1 emissions from this source**

Emissions are relevant and calculated, but not disclosed

**Relevance of location-based Scope 2 emissions from this source**

No emissions from this source

**Relevance of market-based Scope 2 emissions from this source (if applicable)**

No emissions from this source

**Explain why this source is excluded**

In 2018 the combines emissions from these sources were approximately 1% of Scope 1 emissions and less than .5% of combined Scope 1+2 emissions. (using location-based Scope 2 emissions)

## C6.5

**(C6.5) Account for your organization's Scope 3 emissions, disclosing and explaining any exclusions.**

### Purchased goods and services

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#### Evaluation status

Relevant, not yet calculated

#### Explanation

The total volumes and types of purchased goods and services are not collected at the enterprise level; we are not able to calculate the emissions related to this.

### Capital goods

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#### Evaluation status

Relevant, not yet calculated

#### Explanation

The cost and categorization of all capital goods is not collected at the enterprise level; we are not able to calculate the emissions related to this.

### Fuel-and-energy-related activities (not included in Scope 1 or 2)

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#### Evaluation status

Relevant, not yet calculated

#### Explanation

Fuel-and-energy-related activities not included in Scope 1 or 2 are not collected at the enterprise level; we are not able to calculate the actual emissions related to this. We are able to calculate Scope 3 related to employee travel and logistics.

### Upstream transportation and distribution

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#### Evaluation status

Relevant, calculated

#### Metric tonnes CO<sub>2</sub>e

433,675

#### Emissions calculation methodology

We used the Quantis Scope 3 Evaluator to calculate this estimated value.

#### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

#### Explanation

We used the Quantis Scope 3 Evaluator along with the cost of the upstream transporting of goods via road, air, water and rail. The emissions value is an estimate. This is the first time we have estimated this figure.

## **Waste generated in operations**

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### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

16,663

### **Emissions calculation methodology**

We used the Quantis Scope 3 Evaluator to calculate this estimated value based on the waste to landfill removal cost.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Explanation**

We used the Quantis Scope 3 Evaluator to calculate this estimated value based on the waste to landfill removal cost. It includes solid and liquid wastes. This is the first time we have estimated this figure.

## **Business travel**

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### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

22,000

### **Emissions calculation methodology**

Using flight mileage provided by the corporate travel agency and emissions factors from the US EPA, the flight related business travel emissions are calculated.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Explanation**

Using flight mileage provided by the corporate travel agency and emissions factors from the US EPA, the flight related business travel emissions are calculated. The business travel related emissions are 8% lower than the last reporting year, indicating a decreased amount of air travel.

Also, this emissions value has been third party verified.

## **Employee commuting**

---

### Evaluation status

Not evaluated

### Explanation

We do not collect employee personal travel information. We are not able to provide a reliable estimate of the emissions for employee commuting.

## Upstream leased assets

---

### Evaluation status

Not evaluated

### Explanation

Our reporting boundary includes assets over which we have operational control.

## Downstream transportation and distribution

---

### Evaluation status

Not evaluated

### Explanation

The downstream transportation and distribution of goods are managed at the division level and not available at the enterprise level. We are not able to calculate or estimate this emissions value.

## Processing of sold products

---

### Evaluation status

Not evaluated

### Explanation

The processing of sold products is managed at the division level and not available at the enterprise level. We are not able to calculate or estimate this emissions value.

## Use of sold products

---

### Evaluation status

Not evaluated

### Explanation

The use of sold products is managed at the division level and not available at the enterprise level. There is a small number of products whose emissions from use are known, but the percentage is immaterial (<1% of products). We are not able to calculate or estimate this emissions value.

## End of life treatment of sold products

---

### Evaluation status

Not evaluated

### Explanation

There is a small number of products whose emissions from end of life use are known, but the percentage is immaterial (<1% of products). We are not able to calculate or estimate this emissions value.

## Downstream leased assets

---

### Evaluation status

Not relevant, explanation provided

### Explanation

We do not report on assets that we do not have operational control over.

## Franchises

---

### Evaluation status

Not relevant, explanation provided

### Explanation

We have no franchises.

## Investments

---

### Evaluation status

Not evaluated

### Explanation

We do not have information available to either calculate or estimate this emissions value.

## Other (upstream)

---

### Evaluation status

Not evaluated

### Explanation

No other potential Scope 3 emissions sources are evaluated.

## Other (downstream)

---

### Evaluation status

Not evaluated

### Explanation

No other potential Scope 3 emissions sources are evaluated.

## C6.7

### (C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

## C6.10

**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO<sub>2</sub>e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

---

### Intensity figure

46

### Metric numerator (Gross global combined Scope 1 and 2 emissions)

674,833

### Metric denominator

Other, please specify

million USD of operating revenue, only revenue from businesses included in the report is used

### Metric denominator: Unit total

14,756,911,559

### Scope 2 figure used

Location-based

### % change from previous year

6

### Direction of change

Decreased

### Reason for change

There were several projects that contributed to reducing our global scope 1 and 2 emissions including facility, equipment and process improvements. Compared to 2017 we reduced our direct energy consumption by 3% and electricity consumption by 2%. In addition, our improved operational efficiency helped to generate higher revenue. The combination of reduced energy and increased revenue led to the improved Scope 1 and 2 emissions intensities.

## C7. Emissions breakdowns

### C7.1

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

No

## C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Argentina	70
Australia	3,995
Belgium	545
Brazil	550
Bulgaria	9
Canada	1,706
China	1,850
Colombia	25
Costa Rica	1
Czechia	883
Denmark	1,414
Finland	361
France	2,325
Germany	5,811
Hungary	99
India	13
Ireland	617
Italy	1,755
Japan	25
Malaysia	463
Mexico	240
Netherlands	452
New Zealand	449
Poland	775
Russian Federation	113
Slovenia	96
Republic of Korea	1,777
Spain	2,635
Sweden	85
Switzerland	330
United Arab Emirates	6

United Kingdom of Great Britain and Northern Ireland	5,707
United States of America	98,937
South Africa	0.2

## C7.3

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division

### C7.3a

**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

Business division	Scope 1 emissions (metric ton CO2e)
Automotive OEM	27,426
Construction Products	12,185
Corporate	1,086
Food Equipment	31,191
Polymers & Fluids	10,449
Specialty Products	24,372
Test & Measurement and Electronics	11,524
Welding	15,886

## C7.5

**(C7.5) Break down your total gross global Scope 2 emissions by country/region.**

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Argentina	197	197	650	0
Australia	19,031	19,031	16,862	0
Belgium	2,377	2,377	9,133	0
Brazil	1,675	1,675	20,550	0
Bulgaria	1,013	1,013	2,258	0
Canada	874	874	4,739	0
Chile	25	25	86	0

China	67,271	67,271	85,268	0
Colombia	16	16	109	0
Costa Rica	82	82	1,723	0
Croatia	403	403	1,265	0
Czechia	17,763	17,763	33,703	0
Denmark	2,790	2,790	8,168	0
Finland	109	109	450	0
France	5,193	5,193	61,076	0
Germany	27,874	19,292	69,003	21,245
China, Hong Kong Special Administrative Region	19	19	22	0
Hungary	416	416	1,208	0
India	7,813	7,813	8,269	0
Ireland	2,137	2,137	3,989	0
Italy	9,198	9,189	22,777	0
Japan	316	316	755	0
Malaysia	15,144	15,144	23,089	0
Mexico	27,981	27,981	51,652	0
Netherlands	1,588	1,588	4,023	0
New Zealand	712	712	2,302	0
Philippines	459	459	1,055	0
Poland	5,155	5,155	7,821	0
Portugal	176	176	423	0
Russian Federation	203	203	616	0
Slovenia	1,590	1,590	4,789	0
South Africa	175	175	201	0
Republic of Korea	15,569	15,569	33,504	0
Spain	14,182	14,182	40,511	0
Sweden	219	132	4,569	1,810
Switzerland	9	9	346	0
Taiwan, Greater China	2,591	2,591	8,412	0
Thailand	1,621	1,621	3,170	0
United Arab Emirates	68	68	83	0

United Kingdom of Great Britain and Northern Ireland	9,296	8,595	17,438	1,315
United States of America	276,771	275,263	477,355	2,391
Slovakia	613	0	2,742	2,742

## C7.6

**(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

By business division

### C7.6a

**(C7.6a) Break down your total gross global Scope 2 emissions by business division.**

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Automotive OEM	222,203	213,542
Construction Products	51,959	51,336
Corporate	4,208	4,208
Food Equipment	25,755	24,335
Polymers & Fluids	19,663	19,663
Specialty Products	105,265	104,564
Test & Measurement and Electronics	51,379	51,379
Welding	60,283	60,196

## C7.9

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Decreased

### C7.9a

**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year.**

	Change in emissions	Direction of change	Emissions value (percentage)	Please explain calculation

	(metric tons CO2e)			
Change in renewable energy consumption	0	No change	0	
Other emissions reduction activities	2,900	Decreased	0.4	We have reduced emissions by 2,900 t(metric CO2e) compared to last year, despite increased production, because of energy conservation projects implemented. Our previous Scope 1+2 emissions was 678664 t(metric) CO2e. We arrived at the .40 % reduction in emissions through $(2900/678664)*100$ .
Divestment	4	Decreased	0.01	We have reduced emissions by 4 t(metric CO2e) compared to last year, because of divested facilities. Our previous Scope 1+2 emissions was 678,664 t(metric) CO2e. We arrived at the .01 % reduction in emissions through $(4/678664)*100$ and rounding up.
Acquisitions	0	No change	0	
Mergers	647	Decreased	0.1	We have reduced emissions by 647 t(metric CO2e) compared to last year, because of merging facilities. Our previous Scope 1+2 emissions was 678664 t(metric) CO2e. We arrived at the .1 % reduction in emissions through $(647/678,664)*100$ and rounding up.
Change in output	863	Increased	0.13	We have increased emissions by 863 t(metric CO2e) compared to last year, because of increased production. Our previous Scope 1+2 emissions was 678,664 t(metric) CO2e. We arrived at the .13 % increase in emissions through $(863/678664)*100$ .
Change in methodology	0	No change	0	
Change in boundary	0	No change	0	
Change in physical	0	No change	0	

operating conditions				
Unidentified	0	No change	0	
Other	1,143	Decreased	0.17	We have reduced emissions by 1,143 t(metric CO2e) compared to last year, because of closing facilities. Our previous Scope 1+2 emissions was 678664 t(metric) CO2e. We arrived at the .17 % reduction in emissions through $(1,143/678664)*100$ .

## C7.9b

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Location-based

## C8. Energy

### C8.1

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 0% but less than or equal to 5%

### C8.2

**(C8.2) Select which energy-related activities your organization has undertaken.**

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No

Generation of electricity, heat, steam, or cooling	No
--	----

## C8.2a

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	560,547	560,547
Consumption of purchased or acquired electricity		4,201	1,031,965	1,036,166
Total energy consumption		4,201	1,592,512	1,596,712

## C8.2b

**(C8.2b) Select the applications of your organization's consumption of fuel.**

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

## C8.2c

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

---

### Fuels (excluding feedstocks)

Distillate Oil

#### Heating value

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

10,042

**Comment**

---

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

498,893

**Comment**

---

**Fuels (excluding feedstocks)**

Liquefied Petroleum Gas (LPG)

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

9,796

**Comment**

---

**Fuels (excluding feedstocks)**

Petrol

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

13,804

**Comment**

---

**Fuels (excluding feedstocks)**

Diesel

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

28,012

**Comment**

## C8.2d

**(C8.2d) List the average emission factors of the fuels reported in C8.2c.**

**Diesel**

---

**Emission factor**

0.2609

**Unit**

metric tons CO<sub>2</sub>e per MWh

**Emission factor source**

The average emissions factor is the average of the emissions factors from: Defra, GHG Protocol and NGER. The appropriate emissions factor is applied based on location of the site consuming the energy.

**Comment**

The emissions factors are applied based on location. Locations in the UK use the factors from DEFRA, Australian locations use the factors from the NGER and all other locations use GHG Protocol factors.

**Distillate Oil**

---

**Emission factor**

0.2672

**Unit**

metric tons CO<sub>2</sub>e per MWh

**Emission factor source**

The average emissions factor is the average of the emissions factors from: Defra, GHG Protocol and NGER. The appropriate emissions factor is applied based on location of the site consuming the energy.

**Comment**

The emissions factors are applied based on location. Locations in the UK use the factors from DEFRA, Australian locations use the factors from the NGER and all other locations use GHG Protocol factors.

**Liquefied Petroleum Gas (LPG)**

---

**Emission factor**

0.216

**Unit**

metric tons CO<sub>2</sub>e per MWh

**Emission factor source**

The average emissions factor is the average of the emissions factors from: Defra, GHG Protocol and NGER. The appropriate emissions factor is applied based on location of the site consuming the energy.

**Comment**

The emissions factors are applied based on location. Locations in the UK use the factors from DEFRA, Australian locations use the factors from the NGER and all other locations use GHG Protocol factors.

**Natural Gas****Emission factor**

0.1995

**Unit**

metric tons CO<sub>2</sub>e per MWh

**Emission factor source**

The average emissions factor is the average of the emissions factors from: Defra, GHG Protocol and NGER. The appropriate emissions factor is applied based on location of the site consuming the energy.

**Comment**

The emissions factors are applied based on location. Locations in the UK use the factors from DEFRA, Australian locations use the factors from the NGER and all other locations use GHG Protocol factors.

**Petrol****Emission factor**

0.255

**Unit**

metric tons CO<sub>2</sub>e per MWh

**Emission factor source**

The average emissions factor is the average of the emissions factors from: Defra, GHG Protocol and NGER. The appropriate emissions factor is applied based on location of the site consuming the energy.

**Comment**

The emissions factors are applied based on location. Locations in the UK use the factors from DEFRA, Australian locations use the factors from the NGER and all other locations use GHG Protocol factors.

## C8.2f

**(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.**

---

**Basis for applying a low-carbon emission factor**

Energy attribute certificates, Renewable Energy Certificates (RECs)

**Low-carbon technology type**

Wind

**Region of consumption of low-carbon electricity, heat, steam or cooling**

North America

**MWh consumed associated with low-carbon electricity, heat, steam or cooling**

2,391

**Emission factor (in units of metric tons CO<sub>2</sub>e per MWh)**

0

**Comment**

Two of our operations in the US has purchased RECs to cover the reporting period.

---

**Basis for applying a low-carbon emission factor**

Contract with suppliers or utilities (e.g. green tariff), not supported by energy attribute certificates

**Low-carbon technology type**

Wind

Hydropower

**Region of consumption of low-carbon electricity, heat, steam or cooling**

Europe

**MWh consumed associated with low-carbon electricity, heat, steam or cooling**

27,112

**Emission factor (in units of metric tons CO<sub>2</sub>e per MWh)**

0

**Comment**

Several of our operations in Europe have purchased electricity from hydro and wind-generation for the reporting period.

## C9. Additional metrics

### C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

---

**Description**

Waste

**Metric value**

36,113

**Metric numerator**

US tons

**Metric denominator (intensity metric only)****% change from previous year**

4

**Direction of change**

Increased

**Please explain**

We increased output when compared to 2017 levels and unfortunately, this led to an increase in solid waste generation. However, the amount of waste per USD of operational revenue is 2% lower than the previous year's value.

## C10. Verification

### C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

## C10.1a

**(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.**

---

**Scope**

Scope 1

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

 ITW 2018 CDP Verification Statement Final.pdf

**Page/ section reference**

Pages 1-2

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

**Scope**

Scope 2 location-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

 ITW 2018 CDP Verification Statement Final.pdf

**Page/ section reference**

Pages 1 and 2

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

## C10.1b

**(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.**

---

**Scope**

Scope 3- at least one applicable category

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Attach the statement**

 ITW 2018 CDP Verification Statement Final.pdf

**Page/section reference**

Pages 1 and 2

**Relevant standard**

ISO14064-3

## C10.2

**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

No, we do not verify any other climate-related information reported in our CDP disclosure

## C11. Carbon pricing

### C11.1

**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

Yes

## C11.1a

**(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.**

Other carbon tax, please specify

UK Carbon Reduction Commitment Scheme

## C11.1c

**(C11.1c) Complete the following table for each of the tax systems in which you participate.**

Other carbon tax, please specify

---

**Period start date**

April 1, 2017

**Period end date**

March 31, 2018

**% of emissions covered by tax**

1.4

**Total cost of tax paid**

222,600

**Comment**

The UK CRC Energy Efficiency Scheme is the only mandatory GHG emissions reporting scheme in which ITW participates; emissions allowances are a requirement of this scheme. During this reporting period the scheme covered 2% of ITW's Scope 1 and 1.3% of Scope 2 emissions.

## C11.1d

**(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?**

We have worked with third party providers to conduct energy audits at facilities in the UK. The audits identified many opportunities for energy reduction including behavior modification, lighting upgrades, facility and process improvements. Businesses are encouraged to make the recommended changes that are feasible. In addition, businesses are encouraged to purchase renewable energy.

## C11.2

**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

No

## C11.3

### (C11.3) Does your organization use an internal price on carbon?

No, and we do not currently anticipate doing so in the next two years

## C12. Engagement

### C12.1

#### (C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers

#### C12.1a

##### (C12.1a) Provide details of your climate-related supplier engagement strategy.

---

###### Type of engagement

Compliance & onboarding

###### Details of engagement

Included climate change in supplier selection / management mechanism

Code of conduct featuring climate change KPIs

###### % of suppliers by number

100

###### % total procurement spend (direct and indirect)

100

###### % Scope 3 emissions as reported in C6.5

0

###### Rationale for the coverage of your engagement

ITW is committed to working with suppliers who operate with similar dedication to global environmental sustainability. We strive to foster responsibility across our value chain, including partnering with our global supplier network to ensure we are all committed to the highest level of integrity and ethical standards. It is for this reason that we expect our suppliers to focus on reducing the overall environmental impact of their activities and related carbon footprint, landfill waste, and water usage. Suppliers should aim for a 1% year-over-year reduction in absolute greenhouse gas emissions, as described in the ITW Supplier Expectations.

###### Impact of engagement, including measures of success

We have not tracked the carbon footprint of our suppliers; we are unable to define the impact of engagement.

## Comment

### C12.1b

**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

---

#### Type of engagement

Collaboration & innovation

#### Details of engagement

Other – please provide information in column 5

#### % of customers by number

100

#### % Scope 3 emissions as reported in C6.5

0

#### Please explain the rationale for selecting this group of customers and scope of engagement

The ITW Business Model guides our approach to innovation, which starts with our customers and their pain points. Our customers are often challenged with environmental issues, such as how to reduce energy use or emissions. We have continuous engagement with our customers and partner with them on the design and development of our solutions to ensure we are enhancing the positive impact while solving their pain points.

While every division is different, they all focus on long-term sustainability as appropriate to meet customer needs relative to clean technology (clean-tech), including water conservation, renewable energy use and emissions reduction.

Although we engage with all of our customers seeking new solutions, not all of them are seeking to reduce their climate change related impacts.

#### Impact of engagement, including measures of success

Regarding ITW's clean-tech products, which in turn help our customers reduce the environmental impact of their own products, ITW is proud to provide more than \$3.4 billion of products that support overall eco-efficiency. Clean-tech products represent approximately 23 percent of ITW's overall revenue, an increase of one percent from 2017.

## C12.3

**(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**

- Direct engagement with policy makers
- Trade associations

### C12.3a

**(C12.3a) On what issues have you been engaging directly with policy makers?**

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Other, please specify  Phase out of F-gases (California)	Support	Scoping Plan for Reduction of Short-Lived Climate Pollutants by 2030	For the agency to adopt a new F-gas regulation compelling high GWP transition matching federal regulatory efforts to do the same.

### C12.3b

**(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

No

### C12.3f

**(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

ITW has a single point of contact in Washington D.C. that consults with our various businesses on relevant policy issues that may affect the environment and our businesses.

## C12.4

**(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

---

#### Publication

In voluntary sustainability report

#### Status

Complete

#### Attach the document

ITW\_2018CSR\_AResponsibleJourney\_3-22-2019\_Final.pdf

#### Page/Section reference

- Page 7 - Governance
- Page 23 - Improving our Environmental Performance on an ongoing basis
- Page 24 - Reducing our impact
- Page 25 - Emissions and emissions intensity values

#### Content elements

- Governance
- Strategy
- Risks & opportunities
- Emissions figures
- Other metrics

#### Comment

We will publish an emissions reduction target in 2019.

## C14. Signoff

### C-FI

**(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

### C14.1

**(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	Job title	Corresponding job category
Row 1	Vice President, Global Strategic Sourcing & Environmental Health & Safety	Other, please specify VP of Sourcing & EHSS

## SC. Supply chain module

### SC0.0

**(SC0.0) If you would like to do so, please provide a separate introduction to this module.**

ITW is a decentralized company serving many markets and customers. The ITW businesses included in this response supply products to one or more of the customers who have requested a response to the CDP Supply Chain questionnaire. They are not the only ITW businesses in your respective supply chains; they have provided information because they generate a significant portion of ITW's sales revenue from providing your company with goods. The following list matches ITW businesses with requesting companies.

Anheuser Busch InBev

- Hi-Cone

BMW AG

- ITW Deltar Fuel Systems - ITW Deltar Fuel Systems is a plastic injection molder and assembly supplier of fuel components to the automotive industry.
- ITW EF&C Germany
- Fuel Components Czech
- ITW Fastener Products GmbH (Global Fasteners)
- Pronovia S.R.O.

Fiat Chrysler Automobiles NV

- ITW China Plastic Auto Fasteners - Shanghai - Founded in 2000 and mainly provides plastic fasteners.
- ITW Deltar Fasteners (ITW Tekfast)
- ITW Deltar Fuel Systems - ITW Deltar Fuel Systems is a plastic injection molder and assembly supplier of fuel components to the automotive industry.
- Fuel Components Czech
- LYS Fusion Poland - LYS Fusion Poland sp. z o.o. is a company that produces parts for the automotive industry by injection molding process (mainly interior and exterior handles, fuel parts, and body interior parts).
- ITW Global Tire Repair (ITW GTR) - ITW GTR has a varied history which is the foundation for the company that it is today. Two previously-independent companies, each with their own expertise and dedication to the products they manufactured, created what is today's ITW GTR: Slime Tire Sealants (Sealant Systems International, SSI), and Terra-S Automotive Systems. Slime was founded in 1989, providing customers with innovative tire care products for bicycles and the automotive aftermarket. SSI was established in 2003 as a sister company to Slime, to specifically serve the automotive and motorcycle OEM customers, providing tire sealant and tire repair systems.

Ford Motor Company

- China Body Components (Shanghai ITW Plastic & Metal Co., Ltd.) - Founded in 1995 and mainly provides body and fuel auto parts and safety parts for automotive OEMs.
- California Industrial Products - Metal fastener supplier
- ITW China Plastic Auto Fasteners - Shanghai - Founded in 2000 & mainly provides plastic fasteners.
- ITW Deltar Fasteners (ITW Tekfast) - ITW Deltar Fuel Systems is a plastic injection molder and assembly supplier of fuel components to the automotive industry.
- ITW Deltar Fuel Systems

- ITW Delfast India
- Fuel Components Czech

General Motors Company

- China Body Components (Shanghai ITW Plastic & Metal Co., Ltd.) - Founded in 1995 & mainly provides body and fuel auto parts and safety parts for automotive OEMs.
- California Industrial Products - Metal fastener supplier.
- ITW China Plastic Auto Fasteners - Shanghai - Founded in 2000 & mainly provides plastic fasteners.
- ITW Deltar Fasteners (ITW Tekfast)
- ITW Deltar Fuel Systems
- NA Powertrain Fastening - ITW Powertrain manufactures fasteners used in combustion engines and other powertrain related processes.

Honda North America

- ITW Deltar Fuel Systems
- ITW Delfast India
- ITW Global Tire Repair

Pepsico

- Hi-Cone

Volkswagen

- ITW EF&C Czech Republic
- ITW EF&C Germany
- ITW (NINGBO) Components & Fastening Systems Co., Ltd. - Founded in 1998 & mainly provides PRV and fastener auto parts for automotive OEMs.
- ITW EF&C Selb GmbH
- Fuel Components Czech
- Spain Fasteners
- Shakeproof Division - The unit is in the Automotive segment, which forms a part of the Automotive Engineered Products platform and stays as a standalone division. The business unit manufactures and distributes automotive fasteners such as screws, sleeves and lock washers.

Walmart

- Hobart Weigh/Wrap - Hobart Weigh Wrap is a unit of Illinois Tool Works (ITW) in their Food Equipment Group, we manufacture Scales and Wrapping equipment primarily for supermarkets.
- Hobart U.S. - Hobart Service is the leading provider of food equipment service nationwide. With more than 70 office locations and 1,100 factory-trained service technicians across the US. Additionally we have a parts distribution center in Ohio.
- ITW Global Tire Repair (ITW GTR)
- Permatex - Permatex is a leading manufacturer, distributor and marketer of premium chemical products to the automotive maintenance and repair, home and hardware markets. Product categories include gasket makers, sealants, hand cleaners, threadlockers, adhesives, cleaners, repair kits, and lubricants under well-recognized

brand names such as Permatex®, the Right Stuff®, Fast Orange®, Spray Nine®, Versachem®, and Devcon® home.

Caesars

There are no ITW division level responses included in this disclosure

## SC0.1

**(SC0.1) What is your company's annual revenue for the stated reporting period?**

	Annual Revenue
Row 1	14,800,000,000

## SC0.2

**(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?**

Yes

## SC0.2a

**(SC0.2a) Please use the table below to share your ISIN.**

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	US	4523081093

## SC1.1

**(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.**

---

**Requesting member**

BMW AG

**Scope of emissions**

Scope 1

**Allocation level**

Business unit (subsidiary company)

**Allocation level detail**

- ITW Deltar Fuel Systems
- ITW EF&C Germany
- Fuel Components Czech

- ITW Fastener Products GmbH (Global Fasteners)
- Pronovia S.R.O.

**Emissions in metric tonnes of CO2e**

83

**Uncertainty ( $\pm\%$ )**

10

**Major sources of emissions**

- Natural gas for heating
- Propane for fork trucks
- Diesel for company vehicles

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The fuels that we include in our GHG inventory were chosen based on regulatory reporting requirements in the countries in which we operate and GRI reporting guidance. The fuel mix includes all of the major energy/GHG sources of ITW's reporting facilities. The amount that we consume is collected monthly from utility bills and invoices; this information is maintained through a web based system. The energy consumption and GHG emissions are calculated from the amounts consumed. The assumptions are: - all meters and invoice quantities are correct - the data entered on the web based system is correct and complete - emissions factors and GWPs are correct - volume and mass to energy conversions are correct. Not having process or equipment specific information is a major limitation to this process.

---

**Requesting member**

BMW AG

**Scope of emissions**

Scope 2

**Allocation level**

Business unit (subsidiary company)

**Allocation level detail**

- ITW Deltar Fuel Systems
- ITW EF&C Germany
- Fuel Components Czech
- ITW Fastener Products GmbH (Global Fasteners)
- Pronovia S.R.O.

**Emissions in metric tonnes of CO2e**

5,259

**Uncertainty ( $\pm\%$ )**

10

**Major sources of emissions**

Electricity used for lighting, cooling, and powering production equipment

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

Scope 2 emissions are based on electricity only, purchased steam and heat are not commonly used by ITW facilities. The electricity consumption is collected monthly and maintained through a web based system. The quantities are taken from utility bills and the GHG emissions are calculated using published emissions factors based on geography. The assumptions made are: - all meters and invoice information are correct - the data entered on the web based system is correct and complete - emissions factors are correct. Not having process or equipment specific information is a major limitation to this process.

---

**Requesting member**

Fiat Chrysler Automobiles NV

**Scope of emissions**

Scope 1

**Allocation level**

Business unit (subsidiary company)

**Allocation level detail**

- ITW China Plastic Auto Fasteners - Shanghai
- ITW Deltar Fasteners (ITW Tekfast)
- ITW Deltar Fuel Systems

- Fuel Components Czech
- LYS Fusion Poland
- ITW Global Tire Repair (ITW GTR)

**Emissions in metric tonnes of CO<sub>2</sub>e**

202

**Uncertainty ( $\pm\%$ )**

15

**Major sources of emissions**

- Natural gas for heating and powering boilers
- Propane for fork trucks
- Diesel for company vehicles

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The fuels that we include in our GHG inventory were chosen based on regulatory reporting requirements in the countries in which we operate and GRI reporting guidance. The fuel mix includes all of the major energy/GHG sources of ITW's reporting facilities. The amount that we consume is collected monthly from utility bills and invoices; this information is maintained through a web based system. The energy consumption and GHG emissions are calculated from the amounts consumed. The assumptions are:

- all meters and invoice quantities are correct
- the data entered on the web based system is correct and complete
- emissions factors and GWPs are correct
- volume and mass to energy conversions are correct.

Not having process or equipment specific information is a major limitation to this process.

---

**Requesting member**

Fiat Chrysler Automobiles NV

**Scope of emissions**

Scope 2

**Allocation level**

Business unit (subsidiary company)

**Allocation level detail**

- ITW China Plastic Auto Fasteners - Shanghai
- ITW Deltar Fasteners (ITW Tekfast)
- ITW Deltar Fuel Systems
- Fuel Components Czech
- LYS Fusion Poland
- ITW Global Tire Repair (ITW GTR)

**Emissions in metric tonnes of CO<sub>2</sub>e**

6,220

**Uncertainty ( $\pm\%$ )**

15

**Major sources of emissions**

- electricity used for lighting, cooling, and powering production equipment

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

Scope 2 emissions are based on electricity only, purchased steam and heat are not commonly used by ITW facilities. The electricity consumption is collected monthly and maintained through a web based system. The quantities are taken from utility bills and the GHG emissions are calculated using published emissions factors based on geography.

The assumptions made are:

- all meters and invoice information are correct
- the data entered on the web based system is correct and complete
- emissions factors are correct.

Not having process or equipment specific information is a major limitation to this process.

---

**Requesting member**

Ford Motor Company

**Scope of emissions**

Scope 1

**Allocation level**

Business unit (subsidiary company)

**Allocation level detail**

- China Body Components (Shanghai ITW Plastic & Metal Co., Ltd.)
- California Industrial Products
- ITW China Plastic Auto Fasteners - Shanghai
- ITW Deltar Fasteners (ITW Tekfast)
- ITW Deltar Fuel Systems
- ITW Delfast India
- Fuel Components Czech

**Emissions in metric tonnes of CO2e**

808

**Uncertainty ( $\pm\%$ )**

15

**Major sources of emissions**

- Natural gas for heating
- Propane for fork trucks
- Diesel for company vehicles

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The fuels that we include in our GHG inventory were chosen based on regulatory reporting requirements in the countries in which we operate and GRI reporting guidance. The fuel mix includes all of the major energy/GHG sources of ITW's reporting facilities. The amount that we consume is collected monthly from utility bills and invoices; this information is maintained through a web based system. The energy consumption and GHG emissions are calculated from the amounts consumed.

The assumptions are:

- all meters and invoice quantities are correct
- the data entered on the web based system is correct and complete
- emissions factors and GWPs are correct - volume and mass to energy conversions are correct.

Not having process or equipment specific information is a major limitation to this process.

---

**Requesting member**

Ford Motor Company

**Scope of emissions**

Scope 2

**Allocation level**

Business unit (subsidiary company)

**Allocation level detail**

- China Body Components (Shanghai ITW Plastic & Metal Co., Ltd.)
- California Industrial Products
- ITW China Plastic Auto Fasteners - Shanghai
- ITW Deltar Fasteners (ITW Tekfast)
- ITW Deltar Fuel Systems
- ITW Delfast India
- Fuel Components Czech

**Emissions in metric tonnes of CO<sub>2</sub>e**

12,640

**Uncertainty ( $\pm\%$ )**

15

**Major sources of emissions**

- electricity used for lighting, cooling, and powering production equipment

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

Scope 2 emissions are based on electricity only, purchased steam and heat are not commonly used by ITW facilities. The electricity consumption is collected monthly and maintained through a web based system. The quantities are taken from utility bills and the GHG emissions are calculated using published emissions factors based on geography.

The assumptions made are:

- all meters and invoice information are correct
- the data entered on the web based system is correct and complete
- emissions factors are correct.

Not having process or equipment specific information is a major limitation to this process.

---

**Requesting member**

General Motors Company

**Scope of emissions**

Scope 1

**Allocation level**

Business unit (subsidiary company)

**Allocation level detail**

- China Body Components (Shanghai ITW Plastic & Metal Co., Ltd.)
- California Industrial Products
- ITW China Plastic Auto Fasteners - Shanghai
- ITW Deltar Fasteners (ITW Tekfast)
- ITW Deltar Fuel Systems
- NA Powertrain Fastening

**Emissions in metric tonnes of CO<sub>2</sub>e**

1,006

**Uncertainty (±%)**

15

**Major sources of emissions**

- Natural gas for heating
- Propane for fork trucks

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The fuels that we include in our GHG inventory were chosen based on regulatory reporting requirements in the countries in which we operate and GRI reporting guidance.

The fuel mix includes all of the major energy/GHG sources of ITW's reporting facilities. The amount that we consume is collected monthly from utility bills and invoices; this information is maintained through a web based system. The energy consumption and GHG emissions are calculated from the amounts consumed.

The assumptions are: - all meters and invoice quantities are correct  
- the data entered on the web based system is correct and complete  
- emissions factors and GWPs are correct  
- volume and mass to energy conversions are correct.

Not having process or equipment specific information is a major limitation to this process.

---

**Requesting member**

General Motors Company

**Scope of emissions**

Scope 2

**Allocation level**

Business unit (subsidiary company)

**Allocation level detail**

- China Body Components (Shanghai ITW Plastic & Metal Co., Ltd.)
- California Industrial Products
- ITW China Plastic Auto Fasteners - Shanghai
- ITW Deltar Fasteners (ITW Tekfast)
- ITW Deltar Fuel Systems
- NA Powertrain Fastening

**Emissions in metric tonnes of CO2e**

14,358

**Uncertainty ( $\pm\%$ )**

15

**Major sources of emissions**

- electricity used for lighting, cooling, and powering production equipment

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

Scope 2 emissions are based on electricity only, purchased steam and heat are not commonly used by ITW facilities. The electricity consumption is collected monthly and maintained through a web based system. The quantities are taken from utility bills and the GHG emissions are calculated using published emissions factors based on geography.

The assumptions made are:

- all meters and invoice information are correct
- the data entered on the web based system is correct and complete
- emissions factors are correct.

Not having process or equipment specific information is a major limitation to this process.

---

**Requesting member**

Honda North America, Inc.

**Scope of emissions**

Scope 1

**Allocation level**

Business unit (subsidiary company)

**Allocation level detail**

- ITW Deltar Fuel Systems
- ITW Delfast India
- ITW Global Tire Repair

**Emissions in metric tonnes of CO<sub>2</sub>e**

33

**Uncertainty ( $\pm\%$ )**

10

**Major sources of emissions**

- Natural gas for heating
- Propane for fork trucks
- Diesel for company vehicles

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The fuels that we include in our GHG inventory were chosen based on regulatory reporting requirements in the countries in which we operate and GRI reporting guidance. The fuel mix includes all of the major energy/GHG sources of ITW's reporting facilities. The amount that we consume is collected monthly from utility bills and invoices; this information is maintained through a web based system. The energy consumption and GHG emissions are calculated from the amounts consumed.

The assumptions are:

- all meters and invoice quantities are correct
- the data entered on the web based system is correct and complete
- emissions factors and GWPs are correct
- volume and mass to energy conversions are correct.

Not having process or equipment specific information is a major limitation to this process.

---

**Requesting member**

Honda North America, Inc.

**Scope of emissions**

Scope 2

**Allocation level**

Business unit (subsidiary company)

**Allocation level detail**

- ITW Deltar Fuel Systems
- ITW Delfast India
- ITW Global Tire Repair

**Emissions in metric tonnes of CO<sub>2</sub>e**

321

**Uncertainty ( $\pm\%$ )**

10

**Major sources of emissions**

- electricity used for lighting, cooling, and powering production equipment

**Verified**

No

### **Allocation method**

Allocation based on the market value of products purchased

### **Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

Scope 2 emissions are based on electricity only, purchased steam and heat are not commonly used by ITW facilities. The electricity consumption is collected monthly and maintained through a web based system. The quantities are taken from utility bills and the GHG emissions are calculated using published emissions factors based on geography.

The assumptions made are: - all meters and invoice information are correct

- the data entered on the web based system is correct and complete
- emissions factors are correct.

Not having process or equipment specific information is a major limitation to this process.

---

### **Requesting member**

PepsiCo, Inc.

### **Scope of emissions**

Scope 2

### **Allocation level**

Business unit (subsidiary company)

### **Allocation level detail**

- Hi-Cone

### **Emissions in metric tonnes of CO<sub>2</sub>e**

6,660

### **Uncertainty ( $\pm\%$ )**

10

### **Major sources of emissions**

- Electricity usage for powering equipment

### **Verified**

No

### **Allocation method**

Allocation not necessary due to type of primary data available

### **Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

Process or Production Line Level Data. The system for allocation emissions is based only on primary data from Hi-Cone. The following calculation is used to determine the emissions for Hi-Cone carriers sold to PepsiCo: mass of products bought by PepsiCo x (Hi-Cone GHG emissions/mass Hi-Cone product) = GHG emissions allocated to PepsiCo. Uncertainty energy data based on measurements with GHG emissions from independent life cycle expert, representative from all relevant sites, based on most recent data, data from geography under study, data from processes and materials under study. (uncertainty calculation based on pedigree matrix assuming a lognormal distribution).

Verification values verified by LCA consulting firm Franklin Associates, a Division of Eastern Research Group, Inc. Methodology verified by an external peer review in previous LCA conducted for Hi-Cone.

---

### **Requesting member**

Volkswagen AG

### **Scope of emissions**

Scope 1

### **Allocation level**

Business unit (subsidiary company)

### **Allocation level detail**

- ITW EF&C Czech Republic
- ITW EF&C Germany
- ITW (NINGBO) Components & Fastening Systems Co., Ltd.
- ITW EF&C Selb GmbH
- Fuel Components Czech
- Spain Fasteners
- Shakesproof Division

### **Emissions in metric tonnes of CO<sub>2</sub>e**

611

### **Uncertainty ( $\pm\%$ )**

10

### **Major sources of emissions**

- Natural gas for heating
- Propane for fork trucks
- Diesel for company vehicles

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The fuels that we include in our GHG inventory were chosen based on regulatory reporting requirements in the countries in which we operate and GRI reporting guidance. The fuel mix includes all of the major energy/GHG sources of ITW's reporting facilities. The amount that we consume is collected monthly from utility bills and invoices; this information is maintained through a web based system. The energy consumption and GHG emissions are calculated from the amounts consumed.

The assumptions are:

- all meters and invoice quantities are correct
- the data entered on the web based system is correct and complete
- emissions factors and GWPs are correct
- volume and mass to energy conversions are correct.

Not having process or equipment specific information is a major limitation to this process.

---

**Requesting member**

Volkswagen AG

**Scope of emissions**

Scope 2

**Allocation level**

Business unit (subsidiary company)

**Allocation level detail**

- ITW EF&C Czech Republic
- ITW EF&C Germany
- ITW (NINGBO) Components & Fastening Systems Co., Ltd.
- ITW EF&C Selb GmbH
- Fuel Components Czech

- Spain Fasteners
- Shakesproof Division

**Emissions in metric tonnes of CO<sub>2</sub>e**

8,775

**Uncertainty ( $\pm\%$ )**

15

**Major sources of emissions**

- electricity used for lighting, cooling, and powering production equipment

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

Scope 2 emissions are based on electricity only, purchased steam and heat are not commonly used by ITW facilities. The electricity consumption is collected monthly and maintained through a web based system. The quantities are taken from utility bills and the GHG emissions are calculated using published emissions factors based on geography.

The assumptions made are:

- all meters and invoice information are correct

- the data entered on the web based system is correct and complete

- emissions factors are correct.

Not having process or equipment specific information is a major limitation to this process.

---

**Requesting member**

Walmart, Inc.

**Scope of emissions**

Scope 1

**Allocation level**

Business unit (subsidiary company)

**Allocation level detail**

- Hobart Weigh/Wrap
- Hobart U.S.
- ITW Global Tire Repair (ITW GTR)

- Permatex

**Emissions in metric tonnes of CO2e**

203

**Uncertainty (±%)**

15

**Major sources of emissions**

- Natural gas for heating
- Propane for fork trucks

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

The fuels that we include in our GHG inventory were chosen based on regulatory reporting requirements in the countries in which we operate and GRI reporting guidance. The fuel mix includes all of the major energy/GHG sources of ITW's reporting facilities. The amount that we consume is collected monthly from utility bills and invoices; this information is maintained through a web based system. The energy consumption and GHG emissions are calculated from the amounts consumed.

The assumptions are:

- all meters and invoice quantities are correct
- the data entered on the web based system is correct and complete
- emissions factors and GWPs are correct
- volume and mass to energy conversions are correct.

Not having process or equipment specific information is a major limitation to this process.

---

**Requesting member**

Walmart, Inc.

**Scope of emissions**

Scope 2

**Allocation level**

Business unit (subsidiary company)

**Allocation level detail**

- Hobart Weigh/Wrap
- Hobart U.S.
- ITW Global Tire Repair (ITW GTR)
- Permatex

**Emissions in metric tonnes of CO2e**

547

**Uncertainty ( $\pm\%$ )**

15

**Major sources of emissions**

- electricity used for lighting, cooling, and powering production equipment

**Verified**

No

**Allocation method**

Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

Scope 2 emissions are based on electricity only, purchased steam and heat are not commonly used by ITW facilities. The electricity consumption is collected monthly and maintained through a web based system. The quantities are taken from utility bills and the GHG emissions are calculated using published emissions factors based on geography.

The assumptions made are:

- all meters and invoice information are correct
- the data entered on the web based system is correct and complete
- emissions factors are correct.

Not having process or equipment specific information is a major limitation to this process.

---

**Requesting member**

Anheuser Busch InBev

**Scope of emissions**

Scope 2

**Allocation level**

Business unit (subsidiary company)

**Allocation level detail**

Hi-Cone

**Emissions in metric tonnes of CO2e**

6,660

**Uncertainty ( $\pm\%$ )**

10

**Major sources of emissions**

- Electricity usage for powering equipment

**Verified**

Yes

**Allocation method**

Allocation not necessary due to type of primary data available

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

Process or Production Line Level Data. The system for allocation emissions is based only on primary data from Hi-Cone. The following calculation is used to determine the emissions for Hi-Cone carriers sold to AB InBev: mass of products bought by AB InBev x (Hi-Cone GHG emissions/mass Hi-Cone product) = GHG emissions allocated to AB InBev. Uncertainty energy data based on measurements with GHG emissions from independent life cycle expert, representative from all relevant sites, based on most recent data, data from geography under study, data from processes and materials under study. (uncertainty calculation based on pedigree matrix assuming a lognormal distribution).

Verification values verified by LCA consulting firm Franklin Associates, a Division of Eastern Research Group, Inc. Methodology verified by an external peer review in previous LCA conducted for Hi-Cone.

## SC1.2

**(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).**

The GHG emissions listed in the table above include electricity used to manufacture the ring carriers for Anheuser Busch InBev at Hi-Cone's three U.S. plants.

**Electricity**

The US EPA's eGRID (Emissions & Generation Resource Integrated Database) is used to determine the GHG profile for average US electricity generation (lbs CO2-eq/kWh) at point of combustion. (eGRID 2006 (Emissions and Generation Resource Integrated Database). U.S. EPA. ([www.epa.gov/cleanenergy/egrid](http://www.epa.gov/cleanenergy/egrid)).) The eGRID database represents a compilation of 24 different data sources from the EPA, Energy Information Administration (EIA), and the Federal Energy Regulatory Commission (FERC). GHG emissions at point of combustion are included in

the calculations; emissions for extraction, processing and transport of fuels used for electricity generation (i.e. precombustion demands) are not included. The kWh usage is based on primary data collected by Hi-Cone for its three U.S. plants. Electricity demand accounts for 6,129 metric tonnes CO<sub>2</sub>-eq.

## SC1.3

**(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?**

Allocation challenges	Please explain what would help you overcome these challenges
Other, please specify  Various challenges	This response is a compilation of responses from more than 20 individual businesses. Some face no challenges and others do. Some of the things that will help them overcome challenges include education, hiring personnel dedicated to managing emissions, limiting the allocation to high volume products, implementing energy management systems, creating spreadsheets to break down emissions by customer, requesting information from their supply chains and installing meters.

## SC1.4

**(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?**

No

## SC1.4b

**(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.**

None of the ITW businesses included in this response have plans to develop capabilities to allocate emissions to their customers, because they do not have resources available.

## SC2.1

**(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.**

---

**Requesting member**

Fiat Chrysler Automobiles NV

**Group type of project**

Reduce Logistics Emissions

**Type of project**

Route optimization

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings**

26

**Estimated payback**

0-1 year

**Details of proposal**

Routing improvements were realized as a result of moving distribution location from Arkansas to Ohio and changing to customer ship points.

---

**Requesting member**

Ford Motor Company

**Group type of project**

Reduce Logistics Emissions

**Type of project**

Other, please specify

Implementation of energy reduction

**Emissions targeted**

Actions that would reduce our own supply chain emissions (our own scope 3)

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings****Estimated payback**

0-1 year

**Details of proposal**

Decreasing pallet size to increase number of pallets that can be shipped in each container. Emissions will be reduced by 50%.

---

**Requesting member**

General Motors Company

**Group type of project**

Reduce Logistics Emissions

**Type of project**

Other, please specify

Implementation of energy reduction

**Emissions targeted**

Actions that would reduce our own supply chain emissions (our own scope 3)

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings**

**Estimated payback**

0-1 year

**Details of proposal**

Decreasing pallet size to increase number of pallets that can be shipped in each container. Emissions will be reduced by 50%.

---

**Requesting member**

Honda North America, Inc.

**Group type of project**

Reduce Logistics Emissions

**Type of project**

Route optimization

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings**

19

**Estimated payback**

0-1 year

**Details of proposal**

Routing improvements were realized as a result of moving distribution location from Arkansas to Ohio and changing to customer ship points.

---

**Requesting member**

PepsiCo, Inc.

**Group type of project**

New product or service

**Type of project**

New product or service that has a lower upstream emissions footprint

**Emissions targeted**

Actions that would reduce our own supply chain emissions (our own scope 3)

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings**

**Estimated payback**

Other, please specify

Unclear at this point

**Details of proposal**

Using recycled plastic will have CO2e savings over virgin plastic

## SC2.2

**(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?**

No

## SC3.1

**(SC3.1) Do you want to enroll in the 2019-2020 CDP Action Exchange initiative?**

No

## SC3.2

**(SC3.2) Is your company a participating supplier in CDP's 2018-2019 Action Exchange initiative?**

No

## SC4.1

**(SC4.1) Are you providing product level data for your organization's goods or services?**

No, I am not providing data

## Submit your response

### In which language are you submitting your response?

English

### Please confirm how your response should be handled by CDP

	Public or Non-Public Submission	I am submitting to	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Public	Investors Customers	Yes, submit Supply Chain Questions now

### Please confirm below

I have read and accept the applicable Terms