Illinois Tool Works, Inc. - Climate Change 2018

C0. Introduction

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

Founded in 1912, ITW (NYSE: ITW) is a global industrial company centered on 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 50,000 dedicated colleagues around the world thrive in our decentralized, entrepreneurial culture. In 2017, the company achieved revenues of $14.3 billion, with roughly half coming from outside North America. To learn more, please visit www.itw.com.

C0.2

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

<table>
<thead>
<tr>
<th>Row 1</th>
<th>Start date</th>
<th>End date</th>
<th>Indicate if you are providing emissions data for past reporting years</th>
<th>Select the number of past reporting years you will be providing emissions data for</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>January 1 2017</td>
<td>December 31 2017</td>
<td>No</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Row 2</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Row 3</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Row 4</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>

C0.3

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

Argentina
Austria
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
Slovenia
South Africa
Spain
Sweden
Switzerland
Taiwan (Province of China)
Thailand
United Arab Emirates
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) of the individual(s) on the board with responsibility for climate-related issues.

<table>
<thead>
<tr>
<th>Position of individual(s)</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board Chair</td>
<td>ITW's management, subject to oversight by our Board of Directors, structures, monitors and adjusts ITW's sustainability efforts in the manner that 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 and governance matters. ITW's Board receives periodic updates regarding ITW's CSR activities and initiatives and will periodically review ITW's CSR strategy. Also, ITW has a Director of Environmental Health, Safety &amp; 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</td>
</tr>
<tr>
<td>Position of individual(s)</td>
<td>Please explain</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>ITW's management, subject to oversight by our Board of Directors, structures, monitors and adjusts ITW's sustainability efforts in the manner that 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 and governance matters. ITW's Board receives periodic updates regarding ITW's CSR activities and initiatives and will periodically review ITW's CSR strategy. Also, ITW has a Director of Environmental Health, Safety &amp; 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 Scott Santi, CEO/Chairman.</td>
<td></td>
</tr>
</tbody>
</table>

**C1.1b**

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

<table>
<thead>
<tr>
<th>Frequency with which climate-related issues are a scheduled agenda item</th>
<th>Governance mechanisms into which climate-related issues are integrated</th>
<th>Please explain</th>
</tr>
</thead>
</table>
| 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 activities and initiatives and will periodically review the Company's CSR strategy. |
(C1.2) Below board-level, provide the highest-level management position(s) or committee(s) with responsibility for climate-related issues.

<table>
<thead>
<tr>
<th>Name of the position(s) and/or committee(s)</th>
<th>Responsibility</th>
<th>Frequency of reporting to the board on climate-related issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Executive Officer (CEO)</td>
<td>Other, please specify (Provides oversight) The CEO is Chairman of the Board and provides oversight of climate-related risks and opportunities of the business.</td>
<td>Annually</td>
</tr>
<tr>
<td>Other C-Suite Officer, please specify (Vice Chairman)</td>
<td>Assessing climate-related risks and opportunities</td>
<td>Annually</td>
</tr>
<tr>
<td>Other, please specify (Vice President/GM)</td>
<td>Both assessing and managing climate-related risks and opportunities Climate-related risks and opportunities are assessed and managed at the business level. This includes region specific requirements and issues.</td>
<td>Not reported to the board</td>
</tr>
<tr>
<td>Other, please specify (Director Envt, Health, Safety &amp; Sus.)</td>
<td>Other, please specify (Provides oversight) Oversees the execution of ongoing environmental and regulatory compliance initiatives, including climate change.</td>
<td>Annually</td>
</tr>
<tr>
<td>Other, please specify (VP of Sourcing &amp; EHSS)</td>
<td>Assessing climate-related risks and opportunities</td>
<td>Annually</td>
</tr>
<tr>
<td>Other, please specify (General Counsel, Secretary)</td>
<td>Managing climate-related risks and opportunities</td>
<td>Annually</td>
</tr>
</tbody>
</table>

(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.

ITW’s management, subject to oversight by our Board of Directors, structures, monitors and adjusts ITW’s sustainability efforts in the manner that best serves the interests of the Company and all of ITW’s 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 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.

<table>
<thead>
<tr>
<th></th>
<th>From (years)</th>
<th>To (years)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term</td>
<td>0</td>
<td>1</td>
<td>No comment</td>
</tr>
<tr>
<td>Medium-term</td>
<td>2</td>
<td>4</td>
<td>No comment</td>
</tr>
<tr>
<td>Long-term</td>
<td>5</td>
<td>100</td>
<td>No comment</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Frequency of monitoring</th>
<th>How far into the future are risks considered?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annually</td>
<td>3 to 6 years</td>
<td>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.</td>
</tr>
</tbody>
</table>

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?

<table>
<thead>
<tr>
<th>Risk type</th>
<th>Relevance &amp; inclusion</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current regulation</td>
<td>Relevant, always included</td>
<td>Our businesses always 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.</td>
</tr>
<tr>
<td>Emerging regulation</td>
<td>Relevant, always included</td>
<td>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.</td>
</tr>
<tr>
<td>Relevance &amp; inclusion</td>
<td>Please explain</td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td>Our businesses are technology based and seek to innovate to assist in solving customer problems— including those related to climate change opportunities.</td>
<td></td>
</tr>
<tr>
<td>Legal</td>
<td>Our businesses always consider the legal implications of climate change as they consider long-range plans.</td>
<td></td>
</tr>
<tr>
<td>Market</td>
<td>Our businesses always consider the market issues related to climate change and how they may affect the businesses going forward.</td>
<td></td>
</tr>
<tr>
<td>Reputation</td>
<td>Our businesses always consider the reputational impact climate change activities in their long-range plans.</td>
<td></td>
</tr>
<tr>
<td>Acute physical</td>
<td>To identify and assess physical risks, our manufacturing locations receive a visit from our property insurance carrier who also provides property loss prevention advice to these locations. This information is given to the businesses for their response. From a Risk Management standpoint, we review where we have significant exposure on a regular basis not just to make sure certain insurance coverage is adequate, but to ensure we are taking the proper steps to minimize exposure. Most business units also have formal emergency response plans and quite a number develop business continuity plans that would address physical threats and their planned responses. The wide distribution of operations and the varying end markets reduces the risk to our business as a result of severe weather conditions.</td>
<td></td>
</tr>
<tr>
<td>Chronic physical</td>
<td>We have reviewed our global operations and do not believe that we have any operations with chronic physical risks.</td>
<td></td>
</tr>
<tr>
<td>Upstream</td>
<td>Upstream activities are considered by our businesses as they assess customer engagement related to climate change activity in their long-range plans.</td>
<td></td>
</tr>
<tr>
<td>Downstream</td>
<td>Downstream supply chain activities are regularly monitored and climate change risks and opportunities are considered in long-range planning.</td>
<td></td>
</tr>
</tbody>
</table>

**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 85 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) 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) 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?

<table>
<thead>
<tr>
<th>Primary reason</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risks exist, but none with potential to have a substantive financial or strategic impact on business</td>
<td>Although we face inherent risks driven by changes in climate change related regulation, these risks are not expected to generate a substantive change in our business operations, revenue or expenditure. ITW's decentralized structure with many operating units in geographically diverse locations and end markets help mitigate these risks. Examples of these risks include: 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. ITW is impacted by the Energy Efficiency Directive in the European Union and Energy Savings Opportunity Scheme in the UK, where approximately 25% of the 2017 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.</td>
</tr>
</tbody>
</table>

(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) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.
Identifier
Opp1
Where in the value chain does the opportunity occur?
Customer

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Other

Type of financial impact driver
Reduced operating costs (e.g., through efficiency gains and cost reductions)

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

Potential financial impact
0

Explanation of financial impact
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 was the tried and true ITW Customer-Back-Innovation approach. It focuses in providing an effective solution to customers for a regulatory driven pain point as it relates to stricter emission laws being promulgated throughout the world. Partnered with a key customer that drives leading edge innovation within the industry to develop a solution for these pain points.

Cost to realize opportunity
0

Comment
C2.5

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

<table>
<thead>
<tr>
<th></th>
<th>Impact</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products and services</td>
<td>Impacted</td>
<td>Climate change has created opportunities for the development of new products that reduce GHG emissions and energy consumption for our customers. Examples include the battery operated ground power unit for aircraft, energy and water efficient commercial kitchen appliances, and plastic automotive components. Each of the products listed have global opportunities.</td>
</tr>
<tr>
<td>Supply chain and/or value chain</td>
<td>Not yet impacted</td>
<td>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.</td>
</tr>
<tr>
<td>Adaptation and mitigation activities</td>
<td>Not impacted</td>
<td>ITW is a global, diversified company, with operations in diverse locations. Our structure and type of business reduces the need for adaptation and mitigation activities.</td>
</tr>
<tr>
<td>Investment in R&amp;D</td>
<td>Impacted</td>
<td>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.</td>
</tr>
<tr>
<td>Operations</td>
<td>Impacted for some suppliers, facilities, or product lines</td>
<td>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.</td>
</tr>
</tbody>
</table>

C2.6

(C2.6) Describe where and how the identified risks and opportunities have factored into your financial planning process.
## C3. Business Strategy

### C3.1

**Are climate-related issues integrated into your business strategy?**
Yes

**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

**Explain how climate-related issues are integrated into your business objectives and strategy.**
In our decentralized business structure, each of our businesses consider 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.

<table>
<thead>
<tr>
<th>Relevance</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>Impacted for some suppliers, facilities, or product lines. Each of our businesses factor in necessary investments related to changing environment and product opportunities in their long range and annual planning processes.</td>
</tr>
<tr>
<td>Operating costs</td>
<td>Impacted for some suppliers, facilities, or product lines. Each of our businesses factor in necessary investments related to changing environment and product opportunities in their long range and annual planning processes.</td>
</tr>
<tr>
<td>Capital expenditures / capital allocation</td>
<td>Impacted for some suppliers, facilities, or product lines. Each of our businesses factor in necessary investments related to changing environment and product opportunities in their long range and annual planning processes.</td>
</tr>
<tr>
<td>Acquisitions and divestments</td>
<td>Not impacted.</td>
</tr>
<tr>
<td>Access to capital</td>
<td>Not impacted.</td>
</tr>
<tr>
<td>Assets</td>
<td>Not impacted.</td>
</tr>
<tr>
<td>Liabilities</td>
<td>Not impacted.</td>
</tr>
<tr>
<td>Other</td>
<td>Not impacted.</td>
</tr>
</tbody>
</table>
to a variety of industry segments and customers. For example, in our automotive business segment, the business teams have identified lightweighting 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 energy and water consumption in our products is a primary driver of product development to meet the needs of customers who 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 a long range plan that looks forward at least five years. In this long range planning process the units consider business risks and opportunities relative to their offering, 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) Explain why you do not have emissions target and forecast how your emissions will change over the next five years.

<table>
<thead>
<tr>
<th>Primary reason</th>
<th>Five-year forecast</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other, please specify</td>
<td>In five years we expect our emissions to decrease. ITW divisions will continue to</td>
<td>ITW 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.</td>
</tr>
<tr>
<td>ITW 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.</td>
<td>implement emissions reductions activities and we are examining wide-spread use of renewable energy.</td>
<td></td>
</tr>
</tbody>
</table>

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 projects at each stage of development, and for those in the implementation stages, the estimated C02e savings.
### C4.3b

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

**Activity type**
Energy efficiency: Building services

**Description of activity**
Other, please specify (Lighting and HVAC upgrades)

**Estimated annual CO2e savings (metric tonnes CO2e)**
575

**Scope**
Scope 1
Scope 2 (location-based)

**Voluntary/Mandatory**
Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**
109200

**Investment required (unit currency – as specified in CC0.4)**
222000

**Payback period**
1-3 years

**Estimated lifetime of the initiative**
6-10 years

**Comment**
ITW implemented 12 individual projects focused on improving energy efficiency across facilities in North America, Asia and Europe. These projects included lighting retrofits and HVAC upgrades, which reduced mainly location based, Scope 2 emissions. The estimated annual emissions savings is 575 t(metric) CO2e.

<table>
<thead>
<tr>
<th>Activity type</th>
<th>Energy efficiency: Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of activity</td>
<td>Other, please specify (Upgrades, machine replacements, etc.)</td>
</tr>
<tr>
<td>Estimated annual CO2e savings (metric tonnes CO2e)</td>
<td>1630</td>
</tr>
<tr>
<td>Scope</td>
<td>Scope 1 (location-based)</td>
</tr>
<tr>
<td>Voluntary/Mandatory</td>
<td>Voluntary</td>
</tr>
<tr>
<td>Annual monetary savings (unit currency – as specified in CC0.4)</td>
<td>268350</td>
</tr>
<tr>
<td>Investment required (unit currency – as specified in CC0.4)</td>
<td>911100</td>
</tr>
<tr>
<td>Payback period</td>
<td>1-3 years</td>
</tr>
<tr>
<td>Estimated lifetime of the initiative</td>
<td>11-15 years</td>
</tr>
<tr>
<td>Comment</td>
<td>ITW implemented 10 individual projects focused on improving energy efficiency through manufacturing equipment upgrades and improvements across facilities in North America, Asia and Europe. These projects included heat recovery system installation, replacement of hydraulic systems with electric, water cooling system upgrades, motor replacement and compressed air leak repairs. These projects mainly reduced location based Scope 2 emissions. The estimated annual emissions savings is 1,630 t(metric) CO2e.</td>
</tr>
</tbody>
</table>
Activity type
Energy efficiency: Building fabric

Description of activity
Other, please specify (Dock wall and shelter installation)

Estimated annual CO2e savings (metric tonnes CO2e)
50

Scope
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
3500

Investment required (unit currency – as specified in CC0.4)
21000

Payback period
4 - 10 years

Estimated lifetime of the initiative
16-20 years

Comment
ITW installed shelters around the dock doors of a production location in North America. This was primarily aimed to reduce Scope 1 emissions. The estimated annual CO2 savings are 50 tCO2.

C4.3c

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

<table>
<thead>
<tr>
<th>Method</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance with regulatory requirements/standards</td>
<td>ITW is committed to compliance with all regulatory requirements related to environmental matters, and necessary investments would be supported.</td>
</tr>
<tr>
<td>Financial optimization calculations</td>
<td>ITW also compares costs and benefits of proposed projects and uses net present value (NPV) calculations as we consider opportunities to improve performance.</td>
</tr>
<tr>
<td>Internal finance mechanisms</td>
<td>ITW uses internal finance mechanisms to drive emissions reductions through improving building services such as lighting and process improvements that include equipment upgrades.</td>
</tr>
</tbody>
</table>
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.
Level of aggregation
Product

Description of product/Group of products
Our company has a wide range of products that enable our customers to reduce and avoid GHG emissions. One example is the Hi-Cone multi-pack. The Hi-Cone multi-pack weighs less and has less waste than competitive packaging methods, which reduces GHG emissions. This has been proven through a life cycle analysis of the product.

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 (ISO 14040:2006)

% revenue from low carbon product(s) in the reporting year
0

Comment
For additional information visit http://www.hicone.com/

Level of aggregation
Product

Description of product/Group of products
ITW GSE has developed a battery operated Ground Power Unit (GPU) for aircraft to offer as an alternative to diesel powered units. When compared to a T3 diesel engine, the battery powered GPU offers customers a 90% reduction in CO2 emissions over a year’s time when operating for 5.5 hours a day.

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 product testing)
% revenue from low carbon product(s) in the reporting year
0

Comment
For additional information please visit https://itwgse.com/products/power/itw-gse-7400-egpu/

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).
Scope 1
Base year start
January 1 2017
Base year end
December 31 2017
Base year emissions (metric tons CO2e)
111894
Comment
Scope 2 (location-based)
Base year start
January 1 2017
Base year end
December 31 2017
Base year emissions (metric tons CO2e)
547055
Comment
Scope 2 (market-based)
Base year start
January 1 2017
**Base year end**  
December 31 2017  
**Base year emissions (metric tons CO2e)**  
547055  
**Comment**  
We have not calculated actual market based emissions, many of the emissions/residual we need are not available. We have used the grid average emissions factors/location based to calculated 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  

**C6. Emissions data**

**C6.1**

(C6.1) What were your organization’s gross global Scope 1 emissions in metric tons CO2e?  
**Row 1**  
Gross global Scope 1 emissions (metric tons CO2e)  
111894  
End-year of reporting period  
<Not Applicable>  
**Comment**  
Reporting gaps in the natural gas usage were filled by estimating the use based on the average consumption of the facility with the missing information. This accounts for approximately 5% of the GHG emissions from the combustion of natural gas.

**Row 2**  
Gross global Scope 1 emissions (metric tons CO2e)  
<Not Applicable>  
End-year of reporting period  
<Not Applicable>
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 have operations where we are able to access electricity supplier emission factors or residual emissions factors, but are unable to report a Scope 2, market-based figure

Comment
The Scope 2 emissions reported are location based and approximately 8% of these emissions are estimated to eliminate gaps in the reporting. The estimated values are based on the average use of electricity from the facilities. We do not report on market-based emissions, because we do not have access to electricity supplier emissions factors for the majority of our suppliers. We will continue to develop our ability to access these factors and calculate market-based emissions in the future.
C6.3

(C6.3) What were your organization’s gross global Scope 2 emissions in metric tons CO2e?
Row 1
Scope 2, location-based
547055
Scope 2, market-based (if applicable)
<Not Applicable>
End-year of reporting period
<Not Applicable>
Comment
The Scope 2 emissions reported are location based and approximately 8% of these emissions are estimated to eliminate gaps in the reporting. The estimated values are based on the average use of electricity from the facilities.

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.
Source
Chlorofluorocarbon emissions from refrigerator manufacturing are not included in our GHG emissions reporting.
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 the source is excluded
Chlorofluorocarbon emissions from refrigerator manufacturing are not included in our GHG emissions reporting, because they make up approximately 0.01% of the total GHG emissions. The value is not significant.

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 the source is excluded
In 2017 the combined emissions from these sources were less than 2% of Scope 1 emissions and less than .5% of combined Scope 1+2 emissions.

C6.5

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

Purchased goods and services
Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
Emissions calculation methodology
N/A

Percentage of emissions calculated using data obtained from suppliers or value chain partners
Explanation
Emissions from purchased goods and services have not been calculated

Capital goods
Evaluation status
Relevant, not yet calculated
**Metric tonnes CO2e**
**Emissions calculation methodology**
N/A
**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**
Emissions from Capital goods have not been calculated

**Fuel-and-energy-related activities (not included in Scope 1 or 2)**
**Evaluation status**
Relevant, not yet calculated

**Metric tonnes CO2e**
**Emissions calculation methodology**
N/A
**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**
Emissions from Fuel-and-energy-related activities have not been calculated

**Upstream transportation and distribution**
**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
**Emissions calculation methodology**
We are not able to disclose the methodology per request of the provider.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
100

**Explanation**
The upstream transportation and distribution emissions from one provider representing less than 5% of ITW’s total shipping have been calculated by the provider. This provider has requested that the information not be disclosed to third parties.

**Waste generated in operations**
**Evaluation status**
Relevant, not yet calculated

**Metric tonnes CO2e**
Emissions calculation methodology
N/A

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

Explanation
Emissions from waste generated in operations is not calculated

Business travel
Evaluation status
Relevant, calculated

Metric tonnes CO2e
24000

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

Employee commuting
Evaluation status
Not evaluated

Metric tonnes CO2e

Emissions calculation methodology
N/A

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

Explanation

Upstream leased assets
Evaluation status
Not evaluated

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
Downstream transportation and distribution
Evaluation status
Not evaluated
Metric tonnes CO2e
Emissions calculation methodology
Percentage of emissions calculated using data obtained from suppliers or value chain partners
Explanation

Processing of sold products
Evaluation status
Not evaluated
Metric tonnes CO2e
Emissions calculation methodology
Percentage of emissions calculated using data obtained from suppliers or value chain partners
Explanation

Use of sold products
Evaluation status
Relevant, not yet calculated
Metric tonnes CO2e
Emissions calculation methodology
Percentage of emissions calculated using data obtained from suppliers or value chain partners
Explanation
The emissions from a small number of sold products are calculated by the divisions selling them and they are relevant to those divisions and their customers. These figures are not collected at the corporate level.

End of life treatment of sold products
Evaluation status
Relevant, calculated
Metric tonnes CO2e
Emissions calculation methodology
Percentage of emissions calculated using data obtained from suppliers or value chain partners
Explanation
The end of life emissions from a small number of sold products are calculated by the divisions selling them, they are relevant to those divisions and their customers. These figures are not collected at the corporate level.

**Downstream leased assets**
- **Evaluation status**: Not evaluated
- **Metric tonnes CO2e**:  
- **Emissions calculation methodology**: Percentage of emissions calculated using data obtained from suppliers or value chain partners
- **Explanation**:  
- **Franchises**
  - **Evaluation status**: Not relevant, explanation provided
  - **Metric tonnes CO2e**:  
  - **Emissions calculation methodology**: Percentage of emissions calculated using data obtained from suppliers or value chain partners
  - **Explanation**: No franchises

**Investments**
- **Evaluation status**: Not evaluated
- **Metric tonnes CO2e**:  
- **Emissions calculation methodology**: Percentage of emissions calculated using data obtained from suppliers or value chain partners
- **Explanation**:  
- **Other (upstream)**
  - **Evaluation status**: Not evaluated
  - **Metric tonnes CO2e**:  
  - **Emissions calculation methodology**: Percentage of emissions calculated using data obtained from suppliers or value chain partners
  - **Explanation**:  

---

**Explanation**
Other (downstream)
Evaluation status
Not evaluated
Metric tonnes CO2e
Emissions calculation methodology
Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

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 CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
48

Metric numerator (Gross global combined Scope 1 and 2 emissions)
658949

Metric denominator
unit total revenue

*Only the revenue from businesses included in the report is used.*

Metric denominator: Unit total
13865243569

Scope 2 figure used
Location-based

% change from previous year
2
Direction of change
Increased

Reason for change
Increased production

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide?
No

C7.2

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

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>81</td>
</tr>
<tr>
<td>Australia</td>
<td>4333</td>
</tr>
<tr>
<td>Belgium</td>
<td>593</td>
</tr>
<tr>
<td>Brazil</td>
<td>493</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>10</td>
</tr>
<tr>
<td>Canada</td>
<td>1683</td>
</tr>
<tr>
<td>Czechia</td>
<td>2315</td>
</tr>
<tr>
<td>Colombia</td>
<td>13</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>1</td>
</tr>
<tr>
<td>Croatia</td>
<td>918</td>
</tr>
<tr>
<td>Denmark</td>
<td>1630</td>
</tr>
<tr>
<td>Finland</td>
<td>359</td>
</tr>
<tr>
<td>France</td>
<td>1693</td>
</tr>
<tr>
<td>Germany</td>
<td>5436</td>
</tr>
<tr>
<td>Country/Region</td>
<td>Scope 1 emissions (metric tons CO2e)</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>Hungary</td>
<td>134</td>
</tr>
<tr>
<td>India</td>
<td>15</td>
</tr>
<tr>
<td>Ireland</td>
<td>601</td>
</tr>
<tr>
<td>Italy</td>
<td>1608</td>
</tr>
<tr>
<td>Japan</td>
<td>35</td>
</tr>
<tr>
<td>Malaysia</td>
<td>491</td>
</tr>
<tr>
<td>Mexico</td>
<td>212</td>
</tr>
<tr>
<td>Netherlands</td>
<td>494</td>
</tr>
<tr>
<td>New Zealand</td>
<td>472</td>
</tr>
<tr>
<td>Poland</td>
<td>705</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>117</td>
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<tr>
<td>Slovenia</td>
<td>107</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>1694</td>
</tr>
<tr>
<td>Spain</td>
<td>2074</td>
</tr>
<tr>
<td>Sweden</td>
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<tr>
<td>Switzerland</td>
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<td>United Arab Emirates</td>
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</tr>
<tr>
<td>United Kingdom of Great Britain and Northern Ireland</td>
<td>6000</td>
</tr>
<tr>
<td>United States of America</td>
<td>77137</td>
</tr>
</tbody>
</table>

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.
By business division
### C7.3a

**Break down your total gross global Scope 1 emissions by business division.**

<table>
<thead>
<tr>
<th>Business division</th>
<th>Scope 1 emissions (metric ton CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive OEM</td>
<td>26429</td>
</tr>
<tr>
<td>Construction Products</td>
<td>13034</td>
</tr>
<tr>
<td>Corporate</td>
<td>1026</td>
</tr>
<tr>
<td>Food Equipment</td>
<td>12302</td>
</tr>
<tr>
<td>Polymers &amp; Fluids</td>
<td>10208</td>
</tr>
<tr>
<td>Specialty Products</td>
<td>23975</td>
</tr>
<tr>
<td>Test &amp; Measurement and Electronics</td>
<td>11038</td>
</tr>
<tr>
<td>Welding</td>
<td>13882</td>
</tr>
</tbody>
</table>

### C7.5

**Break down your total gross global Scope 2 emissions by country/region.**

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Scope 2, location-based (metric tons CO2e)</th>
<th>Scope 2, market-based (metric tons CO2e)</th>
<th>Purchased and consumed electricity, heat, steam or cooling (MWh)</th>
<th>Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>245</td>
<td>245</td>
<td>806</td>
<td>0</td>
</tr>
<tr>
<td>Australia</td>
<td>20661</td>
<td>20661</td>
<td>18455</td>
<td>0</td>
</tr>
<tr>
<td>Belgium</td>
<td>2263</td>
<td>2263</td>
<td>8694</td>
<td>0</td>
</tr>
<tr>
<td>Brazil</td>
<td>1748</td>
<td>1748</td>
<td>21447</td>
<td>0</td>
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<td>Bulgaria</td>
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<tr>
<td>Canada</td>
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<tr>
<td>Chile</td>
<td>23</td>
<td>23</td>
<td>77</td>
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</tr>
<tr>
<td>Country/Region</td>
<td>Scope 2, location-based (metric tons CO2e)</td>
<td>Scope 2, market-based (metric tons CO2e)</td>
<td>Purchased and consumed electricity, heat, steam or cooling (MWh)</td>
<td>Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>--------------------------------------------</td>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>China</td>
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<td>83877</td>
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<tr>
<td>Colombia</td>
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<td>10</td>
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</tr>
<tr>
<td>Costa Rica</td>
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<td>Czechia</td>
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<tr>
<td>Denmark</td>
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<td>France</td>
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<tr>
<td>Germany</td>
<td>27689</td>
<td>27689</td>
<td>69018</td>
<td>0</td>
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<tr>
<td>China, Hong Kong Special Administrative Region</td>
<td>21</td>
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<td>25</td>
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<tr>
<td>Hungary</td>
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<td>India</td>
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<td>Italy</td>
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<td>Japan</td>
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<td>Malaysia</td>
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<tr>
<td>Netherlands</td>
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<tr>
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<td>760</td>
<td>760</td>
<td>2456</td>
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<tr>
<td>Philippines</td>
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<td>367</td>
<td>843</td>
<td>0</td>
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<tr>
<td>Poland</td>
<td>4882</td>
<td>4882</td>
<td>7406</td>
<td>0</td>
</tr>
<tr>
<td>Portugal</td>
<td>198</td>
<td>198</td>
<td>476</td>
<td>0</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>210</td>
<td>210</td>
<td>639</td>
<td>0</td>
</tr>
<tr>
<td>Country/Region</td>
<td>Scope 2, location-based (metric tons CO2e)</td>
<td>Scope 2, market-based (metric tons CO2e)</td>
<td>Purchased and consumed electricity, heat, steam or cooling (MWh)</td>
<td>Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>--------------------------------------------</td>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Slovenia</td>
<td>1751</td>
<td>1751</td>
<td>5273</td>
<td>0</td>
</tr>
<tr>
<td>South Africa</td>
<td>59</td>
<td>59</td>
<td>68</td>
<td>0</td>
</tr>
<tr>
<td>South Korea</td>
<td>16406</td>
<td>16406</td>
<td>35303</td>
<td>0</td>
</tr>
<tr>
<td>Spain</td>
<td>13757</td>
<td>13757</td>
<td>39298</td>
<td>0</td>
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<tr>
<td>Sweden</td>
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<td>124</td>
<td>2588</td>
<td>0</td>
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<tr>
<td>Switzerland</td>
<td>10</td>
<td>10</td>
<td>370</td>
<td>0</td>
</tr>
<tr>
<td>Taiwan (Province of China)</td>
<td>2703</td>
<td>2703</td>
<td>8773</td>
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<tr>
<td>Thailand</td>
<td>1490</td>
<td>1490</td>
<td>2913</td>
<td>0</td>
</tr>
<tr>
<td>United Arab Emirates</td>
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<td>99</td>
<td>0</td>
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<tr>
<td>United Kingdom of Great Britain and Northern Ireland</td>
<td>11009</td>
<td>11009</td>
<td>20651</td>
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<tr>
<td>United States of America</td>
<td>277876</td>
<td>277876</td>
<td>484287</td>
<td>0</td>
</tr>
</tbody>
</table>

**C7.6**

**C7.6a**

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

<table>
<thead>
<tr>
<th>Business division</th>
<th>Scope 2, location-based emissions (metric tons CO2e)</th>
<th>Scope 2, market-based emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive OEM</td>
<td>229955</td>
<td>229955</td>
</tr>
<tr>
<td>Business division</td>
<td>Scope 2, location-based emissions (metric tons CO2e)</td>
<td>Scope 2, market-based emissions (metric tons CO2e)</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>----------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Construction Products</td>
<td>54549</td>
<td>54549</td>
</tr>
<tr>
<td>Corporate</td>
<td>3975</td>
<td>3975</td>
</tr>
<tr>
<td>Food Equipment</td>
<td>25617</td>
<td>25617</td>
</tr>
<tr>
<td>Polymers &amp; Fluids</td>
<td>20265</td>
<td>20265</td>
</tr>
<tr>
<td>Specialty Products</td>
<td>107090</td>
<td>107090</td>
</tr>
<tr>
<td>Test &amp; Measurement and Electronics</td>
<td>50675</td>
<td>50675</td>
</tr>
<tr>
<td>Welding</td>
<td>54927</td>
<td>54927</td>
</tr>
</tbody>
</table>

**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?**

Increased

**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.**

<table>
<thead>
<tr>
<th>Change in renewable energy consumption</th>
<th>Direction of change</th>
<th>Emissions value (percentage)</th>
<th>Please explain calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;Not Applicable&gt;</td>
<td></td>
<td></td>
<td>Due to &quot;other emissions reduction activities&quot; implemented throughout the year, we were able to prevent 2,250 tonnes of CO2e emissions from our facilities. Last year's Scope 1 + 2 emissions totaled 646,291 tCO2e, we arrived at -0.35 through (-2,250/646,291)*100, i.e. a -0.35% decrease in emissions.</td>
</tr>
<tr>
<td>Change in emissions (metric tons CO2e)</td>
<td>Direction of change</td>
<td>Emissions value (percentage)</td>
<td>Please explain calculation</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>----------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Divestment</td>
<td>Decreased</td>
<td>0.02</td>
<td>Due to the closure of some businesses throughout the year, we reduced 145 tonnes of CO2e emissions. Last year’s Scope 1 + 2 emissions totaled 646,291 tCO2e, we arrived at -0.02 through (-145/646,291)*100, i.e. a -0.02% decrease in emissions.</td>
</tr>
<tr>
<td>Acquisitions</td>
<td>Increased</td>
<td>0.9</td>
<td>Due to the addition of new business activity throughout the year, we increased overall emissions by 5,840 tonnes of CO2e emissions. Last year’s Scope 1 + 2 emissions totaled 646,291 tCO2e, we arrived at 0.9 through (5840/646,291)*100, i.e. a 0.9% increase in emissions.</td>
</tr>
<tr>
<td>Mergers</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in output</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in methodology</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in boundary</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in physical operating conditions</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unidentified</td>
<td>Increased</td>
<td>1.43</td>
<td>Due to a combination of unidentified activities throughout the year, we increased overall emissions by 9,213 tonnes of CO2e emissions. Last year’s Scope 1 + 2 emissions totaled 646,291 tCO2e, we arrived at 1.43 through (9213/646,291)*100, i.e. a 1.43% increase in emissions.</td>
</tr>
<tr>
<td>Other</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Heating value</th>
<th>MWh from renewable sources</th>
<th>MWh from non-renewable sources</th>
<th>Total MWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel (excluding feedstocks)</td>
<td>HHV (higher heating value)</td>
<td>0</td>
<td>544392</td>
<td>544392</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
<td>&lt;Not Applicable&gt;</td>
<td>0</td>
<td>1053991</td>
<td>1053991</td>
</tr>
<tr>
<td>Consumption of purchased or acquired heat</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Consumption of purchased or acquired steam</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Consumption of purchased or acquired cooling</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>
### C8.2b

**C8.2b**

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

<table>
<thead>
<tr>
<th>Fuel Application</th>
<th>Indicate whether your organization undertakes this fuel application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel for the generation of electricity</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of fuel for the generation of steam</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of fuel for the generation of cooling</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of fuel for co-generation or tri-generation</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### C8.2c

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

**Fuels (excluding feedstocks)**

<table>
<thead>
<tr>
<th>Fuel</th>
<th>Heating value</th>
<th>Total fuel MWh consumed by the organization</th>
<th>MWh fuel consumed for the self-generation of electricity</th>
<th>MWh fuel consumed for self-generation of heat</th>
<th>MWh fuel consumed for self-generation of steam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas</td>
<td></td>
<td>483523</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Heating value</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HHV</strong> (higher heating value)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>MWh Consumed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>--------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fuels (excluding feedstocks)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diesel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Heating value</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HHV (higher heating value)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total fuel MWh consumed by the organization</strong></td>
<td>28343</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MWh fuel consumed for the self-generation of electricity</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of heat</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of steam</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of cooling</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MWh fuel consumed for self- cogeneration or self-trigeneration</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fuels (excluding feedstocks)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petrol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Heating value</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HHV (higher heating value)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total fuel MWh consumed by the organization</strong></td>
<td>14390</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MWh fuel consumed for the self-generation of electricity</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MWh fuel consumed for self-generation of heat</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Heating Value</th>
<th>Total MWh Consumed by the Organization</th>
<th>MWh fuel consumed for self-generation of electricity</th>
<th>MWh fuel consumed for self-generation of heat</th>
<th>MWh fuel consumed for self-generation of steam</th>
<th>MWh fuel consumed for self-generation of cooling</th>
<th>MWh fuel consumed for self-cogeneration or self-trigeneration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquefied Petroleum Gas (LPG)</td>
<td>HHV (higher heating value)</td>
<td>9213</td>
<td>0</td>
<td>0</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>0</td>
</tr>
<tr>
<td>Distillate Oil</td>
<td>HHV (higher heating value)</td>
<td>8924</td>
<td>0</td>
<td>0</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>0</td>
</tr>
</tbody>
</table>
MWh fuel consumed for self-generation of steam
<Not Applicable>
MWh fuel consumed for self-generation of cooling
<Not Applicable>
MWh fuel consumed for self-cogeneration or self-trigeneration
0

C8.2d

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

Diesel
Emission factor
0.2609
Unit
metric tons CO2e per MWh
Emission factor source
The average emissions factor is a combination of the factors from: Defra GHG Protocol NGER it is applied based on location of the site providing 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 CO2e per MWh
Emission factor source
The average emissions factor is a combination of the factors from: Defra GHG Protocol NGER it is applied based on location of the site providing 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 CO2e per MWh
- **Emission factor source**: The average emissions factor is a combination of the factors from: Defra GHG Protocol NGER it is applied based on location of the site providing 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 CO2e per MWh
- **Emission factor source**: The average emissions factor is a combination of the factors from: Defra GHG Protocol NGER it is applied based on location of the site providing 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 CO2e per MWh
**Emission factor source**
The average emissions factor is a combination of the factors from: Defra GHG Protocol NGER it is applied based on location of the site providing 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**
No purchases or generation of low-carbon electricity, heat, steam or cooling accounted with a low-carbon emission factor

**Low-carbon technology type**
<Not Applicable>

**MWh consumed associated with low-carbon electricity, heat, steam or cooling**
<Not Applicable>

**Emission factor (in units of metric tons CO2e per MWh)**
<Not Applicable>

**Comment**
The grid mix for many of our locations include renewable energy. We have not yet applied supplier provided emissions factors, including low-carbon emission factors.

**C9. Additional metrics**

**C9.1**

(C9.1) Provide any additional climate-related metrics relevant to your business.
C10. Verification

C10.1

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

<table>
<thead>
<tr>
<th>Scope</th>
<th>Verification/assurance status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1</td>
<td>Third-party verification or assurance process in place</td>
</tr>
<tr>
<td>Scope 2 (location-based or market-based)</td>
<td>Third-party verification or assurance process in place</td>
</tr>
<tr>
<td>Scope 3</td>
<td>Third-party verification or assurance process in place</td>
</tr>
</tbody>
</table>

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 2017 CDP Verification Statement Final (002).pdf

Page/ section reference
Emissions data verified section

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 2017 CDP Verification Statement Final (002).pdf

Page/section reference
Emissions data verified section

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 2017 CDP Verification Statement Final (002).pdf

Page/section reference
Emissions data verified section

Relevant standard
ISO14064-3
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

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

C11.1a

Select the carbon pricing regulation(s) which impacts your operations.
Other carbon tax, please specify (UK Carbon Reduction Commitment Scheme)

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 2016
Period end date
March 31 2017
% of emissions covered by tax
2
Total cost of tax paid
265500
Comment

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 that have the highest CO2e emissions. 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.

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
% total procurement spend (direct and indirect)
% Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement
No coverage provided

Impact of engagement, including measures of success
No impact or measures of success provided

Comment
We encourage our suppliers to reduce their GHG emissions annually as described in the ITW Supplier Expectations. Although we engage with our suppliers we are unable to quantify the percentages requested and impact. The engagement and measures of success are managed by the divisions and not reported at the corporate level.

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

Size of engagement
% Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement
Customer Back Innovation is a key component of the ITW business model. It is innovating from "the customer back"; we work with our customers to develop products that meet their key needs and eliminate pain points. For example, our customer and
the aviation industry wanted lower emissions and cleaner technology. In response, ITW GSE created the previously mentioned battery powered GPU, which reduces GHG emissions, pollutants and offers lower operating costs compared to diesel GPUs.

**Impact of engagement, including measures of success**

Although we engage with our customers we are unable to quantify the total impact of engagement and measures of success. The engagement and measures of success are managed by the divisions and not reported at the corporate level.

**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?

<table>
<thead>
<tr>
<th>Focus of legislation</th>
<th>Corporate position</th>
<th>Details of engagement</th>
<th>Proposed legislative solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other, please specify (Phase out of F-Gases)</td>
<td>Support</td>
<td>Protection of Stratospheric Ozone: Change of Listing Status for Certain Substitutes Under the Significant New Alternatives Policy (SNAP) Program, impacting the US only.</td>
<td>For the agency to adopt a new F-gas regulation compelling high GWP transition in accordance with the recent legal rulings.</td>
</tr>
<tr>
<td>Other, please specify (Phase out of F-gases (California))</td>
<td>Support</td>
<td>Scoping Plan for Reduction of Short-Lived Climate Pollutants by 2030</td>
<td>For the agency to adopt a new F-gas regulation compelling high GWP transition matching federal regulatory efforts to do the same.</td>
</tr>
</tbody>
</table>

**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?
There is no centrally managed process in place to ensure that all of ITW's direct and indirect activities that influence policy are consistent with the overall climate change strategy.
ITW's decentralized structure allows each business segment, platform and division to develop a process to ensure that all of their direct and indirect activities influencing policy are consistent with the overall climate change strategy. ITW operates in a variety of industry segments, end markets and geographical locations; it is not feasible to manage this process on an enterprise wide level.

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_2017CSR_FINAL_5-22.pdf
Content elements
Governance
Strategy
Emissions figures
Other metrics

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.

<table>
<thead>
<tr>
<th>Job title</th>
<th>Corresponding job category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1  Vice President, Global Strategic Sourcing &amp; Environmental Health &amp; Safety</td>
<td>Other, please specify (VP of Sourcing &amp; EHSS)</td>
</tr>
</tbody>
</table>