

## Global Reporting Initiative (GRI) Content Index

The following index shows where information about core and material GRI indicators are included in Air Products' 2020 Sustainability Report. It also provides supplemental information on certain topics to aid understanding of Air Products' programs and performance. A glossary of acronyms is provided in the Report (pages 50-51).

### GRI 102: General Disclosures 2016

Indicator/Disclosure	Report Page	Direct Answers and Additional References	Omissions	Assurance
<b>Organizational Profile</b>				
<b>102-1</b> Name of the organization	Back	Air Products and Chemicals, Inc.		
<b>102-2</b> Activities, brands, products, and services	9-13	Air Products serves customers globally with products, services and solutions that include atmospheric gases, process and specialty gases, equipment and services, including some of the world's largest industrial gas projects. (see <a href="#">2019 Annual Report on form 10-K</a> , pg. 4).		
<b>102-3</b> Location of headquarters	Back	Corporate headquarters: Allentown, Pennsylvania, USA Regional head offices: Hersham, England and Santiago, Chile Principal administrative office: Shanghai, China		
<b>102-4</b> Location of operations	9	Air Products has operations in 51 countries (see <a href="https://www.airproducts.com/company/worldwide-locations">https://www.airproducts.com/company/worldwide-locations</a> ).		
<b>102-5</b> Ownership and legal form	-	Air Products is a Delaware (USA) corporation (see <a href="#">2019 Annual Report</a> , p 15).		
<b>102-6</b> Markets served	11	Air Products serves over 30 industries around the world (see Industries at <a href="https://www.airproducts.com/company">https://www.airproducts.com/company</a> ).		
<b>102-7</b> Scale of the organization	8, 47-48	Total number of employees: >17,000 Total number of operations: >750 Sales (\$ million): \$8,919 (see <a href="#">2019 Annual Report</a> , p 23)	Quantity of products and services provided is confidential.	

<b>Indicator/Disclosure</b>	<b>Report Page</b>	<b>Direct Answers and Additional References</b>	<b>Omissions</b>	<b>Assurance</b>		
<b>102-8</b> Information on employees and other workers	34-35		<b>2019</b>	<b>2018</b>	<b>2017</b>	Employees by employment contract, gender and region is not available.
		Full time staff	96%	95%	95%	
		Part-time staff	4%	5%	5%	
		Employees by region				
		Americas	35%	35%	30%	
		Asia	35%	35%	30%	
		EMEA/ROW	30%	30%	40%	
		Employees by gender				
		Male	79%	78%	77%	
		Female	21%	22%	23%	
		The majority of company activities are performed by employees throughout the normal course of a year (no seasonal workers). Data has been compiled primarily using human resources information in SAP.				
<b>102-9</b> Supply chain	44	Air Products has operations in 51 countries and engages with local and global suppliers. Energy is the primary raw material purchased to manufacture industrial gases, particularly electricity and steam for our ASUs, and natural gas for our HyCO plants. Steel, aluminum, and capital equipment subcomponents (e.g., compressors) are the primary materials procured for our equipment businesses.				
		From a sustainability perspective we focus on suppliers that comprised 80% of our procurement spend in 2019. Of these suppliers, over 60% have sustainability programs and communicate their progress on sustainability. Ninety percent of our largest energy suppliers have demonstrated their commitment to sustainability through energy efficiency programs and transparency. We also look for opportunities to work with our suppliers on renewable energy.				
<b>102-10</b> Significant changes to the organization and its supply chain	14-15, 44	Air Products has taken a leadership position in gasification by successfully starting-up its first-of-its-kind and world-scale coal gasification project in Changzhi City, Shanxi Province, China. The company also acquired Shell's Coal Gasification Process and GE Energy's gasification technology. There were no significant changes in the location of suppliers, structure of the supply chain or relationships with suppliers, including selection and termination.				
<b>102-11</b> Precautionary Principle or approach	19, 30, 32	Air Products takes a precautionary approach when evaluating potential environmental, health and safety risks of our operations and products.				

Indicator/Disclosure	Report Page	Direct Answers and Additional References	Omissions	Assurance
<b>102-12</b> External initiatives	43	This report was developed in accordance with the Global Reporting Initiative. Insights from the Sustainability Accounting Standards Board (SASB), Task Force on Climate-Related Financial Disclosure (TCFD) and other frameworks were considered in the company's materiality assessment completed in the fall of 2019. Air Products is also a member of other external initiatives including the Hydrogen Council, a global CEO coalition for hydrogen technologies. The Hydrogen Council is comprised of over 80 leading companies in industrial gases, energy, transportation and other key industries that support the use of hydrogen to transition to cleaner energy. The Company is also a member of the CEO Action for Diversity and Inclusion initiative, a coalition of more than 900 companies pledging to take action to cultivate workplaces where diverse perspectives and experiences are welcomed and respected and employees feel encouraged to discuss diversity and inclusion.		
<b>102-13</b> Membership of associations	43	Air Products was active in numerous associations and organizations in 2019, including but not limited to: Compressed Gas Association (CGA), Asia Industrial Gases Association (AIGA), China Industrial Gases Industry Association (CIGIA), European Industrial Gases Association (EIGA), American Institute of Chemical Engineers (AIChE), Fuel Cell and Hydrogen Energy Association (FCHEA), Hydrogen Council, National Association of Manufacturers (NAM), European Association of Energy-Intensive Industries (IFIEC).		
<b>Strategy</b>				
<b>102-14</b> Statement from senior decision-maker	2	We believe a thriving society and healthy planet are inextricably linked. We must continue to protect people and the environment while providing the products needed for healthy and fulfilling lives. Our products are critical for scores of industries that need our gases to advance their own sustainability efforts and to make products that serve their customers and consumers. As we look forward, we see significant opportunities to solve today's and tomorrow's energy and environmental challenges, and we are driven by an important ambition – to innovate alongside our customers to help make these opportunities a reality.		
<b>102-15</b> Key impacts, risks and opportunities	4, 10-13	This indicator is not a GRI Core Standard, however it is relevant to Air Products and its sustainability strategy. Business risks are provided in our <a href="#">2019 Annual Report</a> (Item 1A). Sustainability opportunities are realized through helping our customers be more sustainable as described in "Our Purpose and Strategy" as well as "Customer Sustainability" in the report.		

Indicator/Disclosure	Report	Direct Answers and Additional References	Omissions	Assurance
<b>Ethics and integrity</b>				
<b>102-16</b> Values, principles, standards, and norms of behavior	16-17	<p>Air Products is committed to honest and fair business and safeguarding its integrity. Ethics violations will not be tolerated at Air Products. The Company's <a href="#">Code of Conduct and Business Ethics</a> defines how company employees are expected to conduct business and are encouraged to report complaints, concerns, or suspicions about non-compliance. This Code applies to all full and part-time Company employees at all operations worldwide, the Company's Board of Directors, and our subsidiaries, affiliates, operating units, and divisions worldwide. Employees and directors must complete mandatory training annually and certify their understanding of and compliance with the Code. The Code is available in 22 different languages to reflect our global operations and diverse workforce.</p> <p>While this Code is specifically written for Company employees and Board members, we expect our agents, consultants, contractors, distributors, joint venture partners, and other third parties with whom we have business relationships to adhere to these standards as well. Suppliers are also expected to meet our <a href="#">Sustainability Expectations for Suppliers</a>.</p> <p>Maintaining the support and confidence of government officials and regulatory agencies is critical to our day-to-day operations. Governmental support and confidence are equally important to help ensure timely permitting and completion of our projects. For these reasons, Air Products engages with government officials in matters that support our businesses and operations. These activities are governed by our <a href="#">Policy on Political Contributions and Expenditures</a>, which recognizes our responsibility to our stakeholders to participate in the political process while prohibiting the use of corporate funds for contributions to candidates in any country or region, even where allowed by law. As permitted by law, corporate resources are also used to support the administrative functions of Air Products' employee Political Action Committee (PAC). In 2019, the employee PAC disbursed \$133,200 to political candidates in the U.S. that represented federal, state and local jurisdictions and major political parties.</p>		

Indicator/Disclosure	Report Page	Direct Answers and Additional References	Omissions	Assurance								
<b>Governance</b>												
<b>102-18</b> Governance structure	-	<p>The Board has three standing committees that operate under written charters approved by the Board: the <a href="#">Audit and Finance Committee</a>, the <a href="#">Corporate Governance and Nominating Committee</a>, and the <a href="#">Management Development and Compensation Committee</a>. Each of these committees is comprised entirely of independent directors. The Board of Directors has accountability for oversight of our environmental and safety performance, which it reviews at least quarterly. The Corporate Governance and Nominating Committee has responsibility for monitoring our response to important public policy issues, including sustainability, which is reviewed on a routine basis. Business ethics, climate change and talent management are key subjects related to sustainability that are discussed by the Board. The Board also reviews our progress against our 2020 Sustainability Goals. Further, the Management Development and Compensation Committee has structured our compensation program to balance financial results with other Company values such as sustainability, safety, diversity and ethical conduct (see <a href="#">2020 Proxy Statement</a>, pages vi and 27).</p> <p>Air Products also has a Sustainability Leadership Council that sets our sustainability strategy and reviews programs and progress at least quarterly to assess progress toward the achievement of our sustainability objectives. The Council is chaired by the Vice President of Investor Relations, Corporate Relations and Sustainability and includes executives representing key businesses and functional areas. The Council has an integral role in the assessment of sustainability priorities described throughout our report and is the highest-level committee that reviews our sustainability progress and reporting.</p>										
<b>Stakeholder engagement</b>												
<b>102-40</b> List of stakeholder groups	45	Key stakeholders include customers, employees, investors, communities, suppliers and government regulators.										
<b>102-41</b> Collective bargaining agreements	34	<table border="1"> <thead> <tr> <th></th> <th>2019</th> <th>2018</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Percentage of total employees covered by collective bargaining agreements</td> <td>33%</td> <td>31%</td> <td>32%</td> </tr> </tbody> </table> <p>As stated in our <a href="#">Human Rights Policy</a>, Air Products respects employees' voluntary freedom of association and right to bargain collectively and complies with pertinent local laws where we operate. Some of our employees are represented by officially designated third-parties or designated/elected employee representatives.</p>		2019	2018	2017	Percentage of total employees covered by collective bargaining agreements	33%	31%	32%		
	2019	2018	2017									
Percentage of total employees covered by collective bargaining agreements	33%	31%	32%									

Indicator/Disclosure	Report	Page Direct Answers and Additional References	Omissions	Assurance
<b>102-42</b> Identifying and selecting stakeholders	45	Stakeholder groups have been identified by considering people and organizations who could directly affect our business success and/or may be impacted by our business activities.		
<b>102-43</b> Approach to stakeholder engagement	45	We routinely engage with stakeholders on sustainability matters throughout each year. For this report we interviewed and surveyed key stakeholders to understand their concerns and priorities. Responses were used to develop our sustainability priorities (material issues) and identify report content.		
<b>102-44</b> Key topics and concerns raised	45-46	<p>Nine sustainability priorities were identified for this year's stakeholder assessment and included in company sustainability efforts and reporting:</p> <ol style="list-style-type: none"> <li>1. Climate Change - the sustainability concern raised most and prioritized across all stakeholder groups</li> <li>2. Energy - a high priority of our employees and customers</li> <li>3. Innovation - a moderate level concern of our employees and customers</li> <li>4. Economic Growth - a concern of our employees, communities and suppliers</li> <li>5. Safety - a priority of our employees and communities</li> <li>6. Responsible Consumption and Production - a high priority for employees and suppliers</li> <li>7. Water - raised as a concern by employees, customers and communities</li> <li>8. Gender Equality - a moderate level concern of our employees</li> <li>9. Partnerships to improve sustainability – a moderate level concern for customers and suppliers</li> </ol> <p>Other issues raised by stakeholders, particularly communities, included poverty, lack of health/healthy foods, quality education, workforce development, affordable housing/housing inequities, air quality and declining open space.</p>		

<b>Indicator/Disclosure</b>	<b>Report Page</b>	<b>Direct Answers and Additional References</b>	<b>Omissions</b>	<b>Assurance</b>
<b>Reporting practice</b>				
<b>102-45</b> Entities included in the consolidated financial statements	-	The scope of our report is global for continuing operations including assets over which financial control is exercised and as reported in our consolidated audited financial statement. Non-controlling interests in joint ventures are excluded from environmental data and financial results (see <a href="#">2019 Annual Report</a> , p 4).		
<b>102-46</b> Defining report content and topic boundaries	45-46	Air Products used GRI's Principles for Defining Report Content to develop our Sustainability Report. These principles included: stakeholder inclusiveness, sustainability context, and coverage of aspects that reflect our significant economic, environmental and social impacts. Material issues were identified and prioritized through stakeholder interviews and surveys.		
<b>102-47</b> List of material topics	45	<ul style="list-style-type: none"> <li>• Climate Change</li> <li>• Energy</li> <li>• Innovation</li> <li>• Economic Growth</li> <li>• Safety</li> <li>• Responsible Consumption and Production</li> <li>• Water</li> <li>• Gender Equality</li> <li>• Partnerships to Improve Sustainability</li> </ul>		
<b>102-48</b> Restatements of information	47	<p>Due to acquisitions, divestitures and improved methodologies Air Products has restated data for the following:</p> <ul style="list-style-type: none"> <li>• energy consumption;</li> <li>• greenhouse gas and other air emissions;</li> <li>• water withdrawals and water efficiency; and</li> <li>• hazardous and non-hazardous waste.</li> </ul> <p>Restatements are noted with the relevant indicator.</p>		
<b>102-49</b> Changes in reporting	47	There were no significant changes to operational boundaries, scope or measurement methods.		
<b>102-50</b> Reporting period	47	January 1, 2019 to December 31, 2019, except where noted that fiscal year (October 1, 2018 to September 30, 2019) data is provided.		

<b>Indicator/Disclosure</b>	<b>Report Page</b>	<b>Direct Answers and Additional References</b>	<b>Omissions</b>	<b>Assurance</b>
<b>102-51</b> Date of most recent report	47	Our prior year report was issued in May 2019.		
<b>102-52</b> Reporting cycle	47	Annual		
<b>102-53</b> Contact point for questions regarding the report	47	Air Products' Sustainability Director, Julie O'Brien ( <a href="mailto:obrienjk@airproducts.com">obrienjk@airproducts.com</a> ).		
<b>102-54</b> Claims of reporting in accordance with the GRI Standards	46	Our report has been prepared in accordance with GRI Standards: "Core" option.		
<b>102-55</b> GRI content index	-	This document.		
<b>102-56</b> External assurance	21	Financial statements have been audited by an independent, registered public accounting firm (see <a href="#">2019 Annual Report</a> , p 51). Greenhouse gas emissions have been assured by WSP, an independent management and consultancy service provider, and its recommendations shared with members of our Sustainability Leadership Council.		



## Material Topics

### GRI 103: Management Approach

Indicator/Disclosure	Direct Answers and Additional References	Omissions	Assurance
<b>103-1</b> Explanation of the material topic and its boundary	For each material topic, Air Products provides an explanation of why the topic is material, how the company manages the topic, and performance measures for monitoring the effectiveness of the management approach.		
<b>103-2</b> The management approach and its components	Material topics have been identified through a stakeholder assessment as described on page 45 of the report.		
<b>103-3</b> Evaluation of the management approach	The aspect boundary for each topic is provided in the summary table on page 46 of the report.		

Indicator/Disclosure	Report Page	Direct Answers and Additional References	Omissions	Assurance
----------------------	-------------	--	-----------	-----------

### GRI 200 Economic Performance Standards Series

#### GRI 201: Economic Performance 2016

<b>201-1</b> Direct economic value generated and distributed	8	<p>Pertinent economic data for fiscal year 2019:</p> <ul style="list-style-type: none"> <li>• Sales: \$8,918.9 million</li> <li>• Cost of sales: \$5,975.5 million</li> <li>• Capital expenditures<sup>a</sup>: \$2,128.6 million</li> <li>• Selling and administrative: \$750.0 million</li> <li>• Income tax provision: \$480.1 million</li> <li>• Research and Development: \$72.9 million</li> <li>• Donations to communities: \$7.6 million</li> </ul> <p>Additional indicators of economic value are provided in the <a href="#">2019 Annual Report</a> (page 19) and <a href="#">2020 Proxy Statement</a> (page iii).</p> <p><sup>a</sup>Amounts are non-GAAP financial measures. See "Sustainability 2020 Reconciliation of Non-GAAP Financial Measures" for reconciliation to the comparable GAAP measures.</p> <p>Notes on Air Products' tax strategy and income taxes: Air Products' operations, assets, sales and supply chains are primarily local. Accordingly, Air Products earns and reports our taxable profits in the same jurisdictions where we economically earn them. The Company does not generate a disproportionate amount of taxable income in countries with very low tax rates, and we do not actively use tax havens in our planning. A breakdown of our income and taxes on a country-by-country basis is made available to the taxing authorities in the countries where we do business. Air Products has policies in place to ensure that our tax planning is</p>	<p>Reporting is aligned with the Company's annual financial report.</p> <p>Employee wages and benefits (including substantial payroll taxes and social security contributions) and payments to governments by country are not disclosed in financial reporting.</p>	<p>Deloitte, excluding the capital spending and community donations figures.</p>
---	---	---	---	--

appropriate. Additional details about taxes are provided in our [2019 Annual Report](#), Note 23.

Indicator/Disclosure	Report Page	Direct Answers and Additional References	Omissions	Assurance
<p><b>201-2</b> Financial implications and other risks and opportunities due to climate change</p>	20-24	<p>Risks related to climate change are disclosed in our <a href="#">Annual Report</a> (item 1A) and in our <a href="#">CDP response</a> (question C2.3a). Risks are identified by regional environmental experts who share the information with their potentially impacted businesses. Risks are also communicated across regions, shared with the Company's Sustainability Leadership Council, and elevated to the Board of Directors as appropriate.</p> <p>Climate change risks are in two main areas. Transition-related risks relate to policy and legal drivers and increasing energy costs that can impact operating costs. Physical risks due to the increased severity of storms have also been identified as potentially impacting operating costs. These risks are managed in the normal course of business and the management cost has been estimated at \$10 million.</p> <p>Opportunities related to climate change are described in our Sustainability Report (p 10-15). Many opportunities are related to transition risks as our customers strive to improve energy efficiency and reduce CO<sub>2</sub> emissions. Company-wide opportunities such as gasification, carbon capture and hydrogen for mobility are managed at the corporate level by senior leadership and supported by regional businesses. Opportunities that are local or regional in nature are managed by the pertinent regional business.</p>		
<b>GRI 205: Anti-Corruption 2016</b>				
<p><b>205-1</b> Operations assessed for risks related to corruption</p>	16	<p>We conduct risk assessments for the potential for corruption risks across the organization. Anti-bribery and corruption are elements of the compliance function and the internal audit risk assessment processes that are applied across the company globally. Significant risks that have been identified include relationships and transactions with governmental authorities and the use of third-party intermediaries. Financially material breaches of business ethics are reported in our <a href="#">2019 Annual Report</a> (item 3).</p>		
<p><b>205-2</b> Communication and training about anti-corruption policies and procedures</p>	16	<p>The company's <a href="#">Code of Conduct and Business Ethics</a> defines how company employees are expected to conduct business. The Code includes information on anti-corruption and bribery (p 4-5). Every employee globally is required to comply with the Code of Conduct, complete mandatory training, and certify their understanding of the Code on an annual basis.</p> <p>The Code of Conduct has been adopted by our Board of Directors and applies to all full and part-time company employees at all operations worldwide, our Board</p>		

of Directors, and our subsidiaries, affiliates, operating units and divisions globally. The Code of Conduct also applies to employees of joint ventures where Air Products has control. In addition, suppliers are expected to comply with the Code of Conduct in their dealings with us.

The Code, which has been translated to 22 languages, is available to all our stakeholders via our [website](#).

Indicator/Disclosure	Report Page	Direct Answers and Additional References	Omissions	Assurance																														
<b>GRI 300 Environmental Standards Series</b>																																		
<b>GRI 301: Materials 2016</b>																																		
<b>301-1</b> Materials used by weight or volume	19	The principal raw materials for making atmospheric gases and hydrogen are air, energy in the forms of electricity or steam, and natural gas. Air, which is considered by many to be a renewable resource, represents more than 90% of the raw materials we use on a weight basis. Packaging is not a significant issue for Air Products because we supply most of our products in two-way bulk or semi-bulk containers or via pipelines. These containers and pipelines are made of materials that can be recycled.																																
<b>GRI 302: Energy 2016</b>																																		
<b>302-1</b> Energy consumption within the organization	20-24	<table border="1"> <thead> <tr> <th><b>Energy Consumption (TJ)</b></th> <th><b>2019</b></th> <th><b>2018</b></th> <th colspan="2"><b>2015 (Baseline)</b></th> </tr> </thead> <tbody> <tr> <td>Total</td> <td>189,000</td> <td>179,640</td> <td>167,400</td> <td>173,420</td> </tr> <tr> <td>Fuels</td> <td>104,040</td> <td>101,520</td> <td>101,160</td> <td>108,260</td> </tr> <tr> <td>Electricity</td> <td>57,960</td> <td>57,600</td> <td>53,640</td> <td>56,520</td> </tr> <tr> <td>Steam</td> <td>27,000</td> <td>20,520</td> <td>12,600</td> <td>8,640</td> </tr> <tr> <td>Renewable Electricity</td> <td>23%</td> <td>23%</td> <td>22%</td> <td></td> </tr> </tbody> </table> <p>Fuels for 2019 are comprised primarily of natural gas, diesel, gasoline and jet fuel. Fuels, electricity and steam consumption are based on invoice quality data for large facilities and estimated for small facilities based on historical energy consumption and billing. Renewable electricity represents a combination of country- or state-level electricity grid factors and renewable electricity purchases.</p>	<b>Energy Consumption (TJ)</b>	<b>2019</b>	<b>2018</b>	<b>2015 (Baseline)</b>		Total	189,000	179,640	167,400	173,420	Fuels	104,040	101,520	101,160	108,260	Electricity	57,960	57,600	53,640	56,520	Steam	27,000	20,520	12,600	8,640	Renewable Electricity	23%	23%	22%		Electricity and steam sold are company confidential. Heating and cooling are not sold by Air Products.	By virtue of verification of GHG data by WSP.
<b>Energy Consumption (TJ)</b>	<b>2019</b>	<b>2018</b>	<b>2015 (Baseline)</b>																															
Total	189,000	179,640	167,400	173,420																														
Fuels	104,040	101,520	101,160	108,260																														
Electricity	57,960	57,600	53,640	56,520																														
Steam	27,000	20,520	12,600	8,640																														
Renewable Electricity	23%	23%	22%																															

Indicator/Disclosure	Report Page	Direct Answers and Additional References	Omissions	Assurance																									
<b>302-3</b> Energy intensity	21	<table border="1"> <thead> <tr> <th>Energy Intensity Improvement</th> <th>2019</th> <th>2018</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Air separation units (ASU)</td> <td>3.7%</td> <td>2.0%</td> <td>1.6%</td> </tr> <tr> <td>Hydrogen/carbon monoxide units (HyCO)</td> <td>0.9%</td> <td>0.9%</td> <td>0.6%</td> </tr> </tbody> </table> <p>Energy intensity is based on energy consumed within the organization. It is configured as the ratio of reporting year (2019) energy consumed to reporting year production divided by the consumption to production ratio in our base year (2015). Using a ratio allows the reported results to be dimensionless and protects confidential production data.</p>	Energy Intensity Improvement	2019	2018	2017	Air separation units (ASU)	3.7%	2.0%	1.6%	Hydrogen/carbon monoxide units (HyCO)	0.9%	0.9%	0.6%															
Energy Intensity Improvement	2019	2018	2017																										
Air separation units (ASU)	3.7%	2.0%	1.6%																										
Hydrogen/carbon monoxide units (HyCO)	0.9%	0.9%	0.6%																										
<b>302-4</b> Reduction of energy consumption	21	Air Products estimates that its energy consumption is lower in 2019 by 7,800 TJ due to energy efficiency improvements. These savings are estimated as the difference in actual energy consumed compared to a "business as usual" consumption based on 2015 efficiencies. Savings include electricity, primarily for our ASUs, and natural gas for our HyCO units.																											
<b>GRI 303: Water 2018</b>																													
<b>303-3</b> Water withdrawal	24-25	<table border="1"> <thead> <tr> <th>Water Withdrawals (megaliters)</th> <th>2019 (Total)</th> <th>2019 (Water-stressed areas)</th> <th>2018 (Total)</th> <th>2017 (Total)</th> </tr> </thead> <tbody> <tr> <td>Surface water</td> <td>900</td> <td>70</td> <td>900</td> <td>900</td> </tr> <tr> <td>Ground water</td> <td>3,500</td> <td>380</td> <td>4,400</td> <td>3,400</td> </tr> <tr> <td>Third-party water</td> <td>68,900</td> <td>16,350</td> <td>67,000</td> <td>66,400</td> </tr> <tr> <td>Total water withdrawals</td> <td>73,300</td> <td>16,800</td> <td>72,300</td> <td>70,700</td> </tr> </tbody> </table> <p>Water data is collected for facilities consuming at least 0.5 megaliters of water per year. Data is based primarily on water bills and/or metered data. Engineering estimates are used for some facilities.</p> <p>Water-stressed areas include water basins where the baseline water stress is high or extremely high according to the World Resources Institute Aqueduct Water Risk Atlas. In 2019, 22% of our facilities were in water-stressed areas.</p> <p>Surface water is primarily freshwater with <math>\leq 1,000</math> mg/L total dissolved solids.</p> <p>Third-party water includes recycled water.</p> <p>Values for 2018 and 2017 have been restated due to acquisitions, divestitures and improved methodologies.</p>	Water Withdrawals (megaliters)	2019 (Total)	2019 (Water-stressed areas)	2018 (Total)	2017 (Total)	Surface water	900	70	900	900	Ground water	3,500	380	4,400	3,400	Third-party water	68,900	16,350	67,000	66,400	Total water withdrawals	73,300	16,800	72,300	70,700		
Water Withdrawals (megaliters)	2019 (Total)	2019 (Water-stressed areas)	2018 (Total)	2017 (Total)																									
Surface water	900	70	900	900																									
Ground water	3,500	380	4,400	3,400																									
Third-party water	68,900	16,350	67,000	66,400																									
Total water withdrawals	73,300	16,800	72,300	70,700																									

<b>Indicator/Disclosure</b>	<b>Report Page</b>	<b>Direct Answers and Additional References</b>				<b>Omissions</b>	<b>Assurance</b>
<b>303-5</b> Water consumption	24-25	<b>Water Consumed (megaliters)</b>	<b>2019 (Total)</b>	<b>2019 (Water-stressed areas)</b>	<b>2018 (Total)</b>	<b>2017 (Total)</b>	Water storage is omitted as it does not have a significant impact.
		Total water consumption	59,700	16,200	61,600	58,100	
		Water intensity improvement	25%		18%	11%	
		Water data is collected for facilities consuming at least 0.5 megaliters of water per year. Data is based primarily on water bills and/or metered data. Engineering estimates are used for some facilities.					
		Water-stressed areas include water basins where the baseline water stress is high or extremely high according to the World Resources Institute Aqueduct Water Risk Atlas. In 2019, 22% of our facilities were in water-stressed areas.					
		Surface water is primarily freshwater with $\leq 1,000$ mg/L total dissolved solids.					
		Third-party water includes recycled water.					
		Values for 2018 and 2017 have been restated due to acquisitions, divestitures and improved methodologies.					
		Water intensity is based on water consumed within the organization. It is configured as the ratio of reporting year (2019) water consumed to reporting year production divided by the consumption to production ratio in our Base Year (2015). Using a ratio allows the reported results to be dimensionless and protects confidential production data.					

**GRI 305: Emissions 2016**

<b>305-1</b> Direct (Scope 1) GHG emissions	21-22	<b>GHG Emissions (million MT CO<sub>2</sub>e)</b>	<b>2019</b>	<b>2018</b>	<b>2017 (Baseline)</b>	<b>2015</b>	Biogenic CO <sub>2</sub> emissions are not applicable to Air Products.	Yes, verified by WSP.
		Scope 1	16.6	16.5	15.6	14.5		
		Scope 1 and 2 GHG emissions include the following applicable gases: CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O. CO <sub>2</sub> e represents the combined carbon emissions of these gases.						
		We measure our performance against a baseline year of 2015, which was chosen because it was the expiration date of Air Products' first set of sustainability goals.						
		We use the World Resources Institute (WRI) / World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol standard to define organizational and operational boundaries, emission calculation methodologies, and inventory quality aspects to ensure an accurate and representative inventory.						

We apply the financial control method and use publicly available global warming potentials and emissions factors, primarily from the Intergovernmental Panel on Climate Change, International Energy Agency, and U.S. Energy Information Administration.

Values for 2018 and 2017 have been restated due to acquisitions, divestitures and improved methodologies.

<b>Indicator/Disclosure</b>	<b>Report Page</b>	<b>Direct Answers and Additional References</b>	<b>Omissions</b>	<b>Assurance</b>																				
<b>305-2</b> Energy indirect (Scope 2) GHG emissions	21-22	<table border="1"> <thead> <tr> <th><b>GHG Emissions (million MT CO<sub>2</sub>e)</b></th> <th><b>2019</b></th> <th><b>2018</b></th> <th><b>2017</b></th> <th><b>2015 (Baseline)</b></th> </tr> </thead> <tbody> <tr> <td>Scope 2</td> <td>10.6</td> <td>10.3</td> <td>9.8</td> <td>9.7</td> </tr> </tbody> </table> <p>Emissions are location-based and calculated using invoice quality data. Other factors, such as the gases included and the use of the Greenhouse Gas Protocol, are the same as described in the response to 305-1. Values for 2018 and 2017 have been restated due to acquisitions, divestitures and improved methodologies.</p>	<b>GHG Emissions (million MT CO<sub>2</sub>e)</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2015 (Baseline)</b>	Scope 2	10.6	10.3	9.8	9.7		Yes, verified by WSP.										
<b>GHG Emissions (million MT CO<sub>2</sub>e)</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2015 (Baseline)</b>																				
Scope 2	10.6	10.3	9.8	9.7																				
<b>305-3</b> Other indirect (Scope 3) GHG emissions	21	<table border="1"> <thead> <tr> <th><b>GHG Emissions (million MT CO<sub>2</sub>e)</b></th> <th><b>2019</b></th> <th><b>2018</b></th> <th><b>2017</b></th> </tr> </thead> <tbody> <tr> <td>Category 3: Fuel and Energy Related Activities (not incl. in Scope 1 or 2)</td> <td>3.5</td> <td>3.5</td> <td>3.5</td> </tr> <tr> <td>Category 11: Use of sold products</td> <td>1.9</td> <td>3.1</td> <td>2.4</td> </tr> <tr> <td>Category 15: Investments</td> <td>1.2</td> <td>1.1</td> <td>1.1</td> </tr> <tr> <td>Total</td> <td>6.6</td> <td>7.7</td> <td>7.0</td> </tr> </tbody> </table> <p>For 2019, Air Products re-evaluated the Scope 3 categories on which it reports and decided to remove one minor category (Category 6: Business Travel) and add a material category (Category 11: Use of sold products). For Category 3 emissions are estimated based on emissions factors for the energy consumed multiplied by the energy consumed. Likewise, Category 11 emissions are estimated based on emissions factors for the products sold multiplied by the volumes of product sold. For Category 15, emissions per unit revenue are calculated for Air Products facilities and these factors are applied to the incomes from the equity affiliates by business type. These emissions were subsequently summed to estimate the total emissions for each category.</p>	<b>GHG Emissions (million MT CO<sub>2</sub>e)</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	Category 3: Fuel and Energy Related Activities (not incl. in Scope 1 or 2)	3.5	3.5	3.5	Category 11: Use of sold products	1.9	3.1	2.4	Category 15: Investments	1.2	1.1	1.1	Total	6.6	7.7	7.0		Yes, Category 3 verified by WSP.
<b>GHG Emissions (million MT CO<sub>2</sub>e)</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>																					
Category 3: Fuel and Energy Related Activities (not incl. in Scope 1 or 2)	3.5	3.5	3.5																					
Category 11: Use of sold products	1.9	3.1	2.4																					
Category 15: Investments	1.2	1.1	1.1																					
Total	6.6	7.7	7.0																					

Values for 2018 and 2017 have been restated from prior reporting due to acquisitions, divestitures and improved methodologies.

Indicator/Disclosure	Report Page	Direct Answers and Additional References	Omissions	Assurance								
<b>305-4</b> GHG emissions intensity	21	<table border="1"> <thead> <tr> <th data-bbox="562 396 968 428"><b>GHG Intensity Improvement</b></th> <th data-bbox="1079 396 1150 428"><b>2019</b></th> <th data-bbox="1268 396 1339 428"><b>2018</b></th> <th data-bbox="1444 396 1516 428"><b>2017</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="562 440 968 472"></td> <td data-bbox="1079 440 1150 472">2.3%</td> <td data-bbox="1268 440 1339 472">1.5%</td> <td data-bbox="1444 440 1516 472">1.2%</td> </tr> </tbody> </table>	<b>GHG Intensity Improvement</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>		2.3%	1.5%	1.2%		
<b>GHG Intensity Improvement</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>									
	2.3%	1.5%	1.2%									
<p>Air Products has achieved a GHG intensity improvement of 2.3% against the baseline year of 2015 and has surpassed 2020 goal of 2% intensity improvement.</p>												
<p>Emissions intensity is configured as the ratio of reporting year (2019) Scope 1 and 2 emissions to reporting year production divided by the Scope 1 and 2 emissions to production ratio in our base year (2015). Using a ratio allows the reported results to be dimensionless and protects confidential production data.</p>												
<p>Emissions included and estimation methods are summarized in the response to 305-1 and 305-2.</p>												
<b>305-5</b> Reduction of GHG emissions	20-22	<p>Air Products has avoided the emissions of 1.1 million metric tons of Scope 1 plus Scope 2 CO<sub>2</sub>e cumulatively since 2015 due to efficiency improvements. Emissions included and estimation methods are summarized in the response to 305-1 and 305-2.</p>										

Indicator/Disclosure	Report Page	Direct Answers and Additional References	Omissions	Assurance																								
<b>305-7</b> Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions <sup>1</sup>	26	<table border="1"> <thead> <tr> <th>Other Air Emissions (kg)</th> <th>2019</th> <th>2018</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Nitrogen Oxides (NOx)</td> <td>1,495,000</td> <td>1,474,000</td> <td>1,565,000</td> </tr> <tr> <td>Sulfur Oxides (SOx)</td> <td>71,000</td> <td>71,000</td> <td>69,000</td> </tr> <tr> <td>TRI Releases</td> <td></td> <td>143,000</td> <td>122,000</td> </tr> <tr> <td>Volatile Organic Chemicals (VOCs)</td> <td></td> <td>77,000</td> <td>69,000</td> </tr> <tr> <td>Hazardous Air Pollutants (HAPs)</td> <td></td> <td>35,000</td> <td>34,000</td> </tr> </tbody> </table> <p>Air Products monitors and reports air emissions in accordance with applicable regulations, following the prescribed methodologies. The Toxic Release Inventory (TRI) is a U.S. EPA program for tracking toxic chemicals that may pose a threat to human health and the environment. Each year, U.S. facilities in different industry sectors must report how much of each chemical is released to the environment and/or managed through recycling, energy recovery and treatment. TRI data is reported during the summer following the reporting year, and so the data we report is one year in arrears in our annual sustainability reporting. HAPs and VOCs are estimated based on TRI reporting. TRI releases, VOCs and HAPs have been restated for 2017 to correct minor historical errors.</p>	Other Air Emissions (kg)	2019	2018	2017	Nitrogen Oxides (NOx)	1,495,000	1,474,000	1,565,000	Sulfur Oxides (SOx)	71,000	71,000	69,000	TRI Releases		143,000	122,000	Volatile Organic Chemicals (VOCs)		77,000	69,000	Hazardous Air Pollutants (HAPs)		35,000	34,000	Air Products does not track or report on Persistent Organic Pollutants (POPs) or Particulate Matter (PM).	
Other Air Emissions (kg)	2019	2018	2017																									
Nitrogen Oxides (NOx)	1,495,000	1,474,000	1,565,000																									
Sulfur Oxides (SOx)	71,000	71,000	69,000																									
TRI Releases		143,000	122,000																									
Volatile Organic Chemicals (VOCs)		77,000	69,000																									
Hazardous Air Pollutants (HAPs)		35,000	34,000																									

### GRI 306: Effluents and Waste 2016

<b>306-2</b> Waste by type and disposal method <sup>1</sup>	26	<table border="1"> <thead> <tr> <th>Waste (million pounds)</th> <th>2019</th> <th>2018</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Hazardous waste</td> <td></td> <td></td> <td></td> </tr> <tr> <td>  Generated</td> <td>6.1</td> <td>6.1</td> <td>4.3</td> </tr> <tr> <td>  Recycled</td> <td>3.3</td> <td>3.9</td> <td>3.5</td> </tr> <tr> <td>  Incinerated</td> <td>0.7</td> <td>1.1</td> <td>0.2</td> </tr> <tr> <td>  Treated</td> <td>0.8</td> <td>0.4</td> <td>0.4</td> </tr> <tr> <td>  Landfilled</td> <td>1.3</td> <td>0.6</td> <td>0.2</td> </tr> <tr> <td>Non-hazardous waste<sup>2</sup></td> <td>11.3</td> <td>7.1</td> <td>7.7</td> </tr> </tbody> </table> <p>All waste is managed and treated in accordance with the regulatory requirements of the jurisdiction in which the waste is generated. Fifty-three percent of waste in 2019 was recycled. Waste that cannot be recycled is disposed of in an environmentally sound and regulatory compliant manner. Waste disposal methods are provided by waste disposal contractors. Hazardous waste data for 2018 and non-hazardous waste for 2017 and 2018 has been restated to correct minor historical errors.</p>	Waste (million pounds)	2019	2018	2017	Hazardous waste				Generated	6.1	6.1	4.3	Recycled	3.3	3.9	3.5	Incinerated	0.7	1.1	0.2	Treated	0.8	0.4	0.4	Landfilled	1.3	0.6	0.2	Non-hazardous waste <sup>2</sup>	11.3	7.1	7.7	Non-hazardous waste data is not compiled centrally due to the number of facilities and vendors used.	
Waste (million pounds)	2019	2018	2017																																	
Hazardous waste																																				
Generated	6.1	6.1	4.3																																	
Recycled	3.3	3.9	3.5																																	
Incinerated	0.7	1.1	0.2																																	
Treated	0.8	0.4	0.4																																	
Landfilled	1.3	0.6	0.2																																	
Non-hazardous waste <sup>2</sup>	11.3	7.1	7.7																																	

<sup>1</sup>Not a material issue. Data has been provided for completeness.

<sup>2</sup>Non-hazardous waste is for North America.



Indicator/Disclosure	Report Page	Direct Answers and Additional References	Omissions	Assurance
<b>GRI 307: Environmental Compliance 2016</b>				

**307-1**  
 Non-compliance with environmental laws and regulations<sup>1</sup>

**26**

	2019	2018	2017
Environmental Fines	\$4,400	\$17,600	\$4,100
Reportable Spills	0	0	1
Notices of Violation / Non-monetary sanctions	14	17	14

**Report**

**Indicator/Disclosure**   **Page**   **Direct Answers and Additional References**   **Omissions**   **Assurance**

**GRI 400 Social Standards Series**

**GRI 403: Occupational Health and Safety 2018**

**403-1**      30      Air Products has a global Environmental Health & Safety (EHS) Management System that applies to all workers at 100% of our locations worldwide. This system integrates corporate policies and governmental regulations, and supports the principles promoted by international standards such as ISO 45001. There are over 250 standards in our EHS Management System, and the majority are related to safety and/or health.

Below is a list of some of the health and safety elements of our EHS Management System:

- Safe Systems of Work
- Occupational Health Protection
- Emergency Preparedness
- Process Safety Management
- Product Stewardship
- EHS Assurance
- EH&S Training
- Incident Reporting and Investigation
- Product Distribution
- Procurement and Contractor Control

**403-9**  
Work-related injuries

30

<b>Safety performance</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
Employee recordables	82	49	59
Employee recordable injury rate (per 200,000 hours worked)	0.45	0.29	0.34
Employee lost-time incidents	16	12	10
Employee lost-time incident rate (per 200,000 hours worked)	0.09	0.07	0.06
Employee fatalities	0	0	0
Contractor recordables	58	45	59
Contractor recordable injury rate (per 200,000 hours worked)	0.5	0.31	0.38
Contractor lost-time incidents	2	10	10
Contractor lost-time incident rate (per 200,000 hours worked)	0.02	0.07	0.06
Contractor fatalities	2	0	0

Air Products does not disclose the main types of work-related injuries and the work-related hazards that pose a risk of high-consequence injury.

Air Products has a global system for reporting safety incidents that is also used to track root causes, action items and closure of incidents. We measure and track Serious Injuries and Fatalities (SIFs) and Near Fatal Accidents (NFAs) to quantify the severity of our work-related injury performance. These incidents are broadly communicated, and actions are taken to eliminate and minimize recurrence. In 2019, the percentage of injuries considered to be SIFs was 12%. Industry benchmarks indicate that this is significantly better than the typical rate of about 20%.

**Report**

**Indicator/Disclosure**    **Page**    **Direct Answers and Additional References**    **Omissions**    **Assurance**

**GRI 405: Diversity and Equal Opportunity 2016**

**405-1**    34-35    The diversity of Air Products' Board of Directors is 56%, with five diverse members of the nine-member board. In addition, 33% of the Board members are women (see [2020 Proxy Statement](#), page 2; Current Report on Form 8-K filed March 9, 2020).  
Diversity of governance bodies and employees

Employee diversity information:

	<b>2019</b>	<b>2018</b>	<b>2017</b>
Employees by gender			
Male	79%	78%	77%
Female	21%	22%	23%
Employees by age group			
<30 years old	12%	11%	13%
30-50 years old	61%	59%	57%
>50 years old	27%	30%	30%
Hiring			
U.S. college hires that are female or minority	55%	50%	50%

Report			Omissions	Assurance
Indicator/Disclosure	Page	Direct Answers and Additional References		
<b>GRI 413: Local Communities 2016</b>				
<b>413-1</b> Operations with local community engagement, impact assessments, and development programs <sup>1</sup>	39-42k	<p>We develop stakeholder outreach plans aimed at addressing high priority needs and maintaining positive relationships for the communities with our largest operations around the world. We work closely with community partners including not-for-profit organizations, emergency responders, elected officials, and education, business and community leaders to identify the highest impact opportunities. Our support priorities are in education, health and human services, community and economic development, arts and culture, and environment and safety. We also engaged community representatives in the materiality assessment for our sustainability report.</p> <p>Air Products' <a href="#">IntegrityLine</a> is available to anyone who would like to report a potential issue about the Company. It can be found in the Governance section of our website and is linked from various webpages, including our <a href="#">Code of Conduct</a> and <a href="#">Human Rights Policy</a> pages.</p> <p>Additional information: <a href="#">Corporate Citizenship website</a>.</p>	Percentage of operations with implemented community engagement plans is not tracked.	

<sup>1</sup>Not a material issue. Data has been provided for completeness