Williams Companies, Inc. - Climate Change 2019

C0. Introduction

C0.1

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

Williams (NYSE: WMB) is a publicly traded Fortune 500 energy infrastructure company and its common stock is a component of the S&P 500. As one of the largest energy infrastructure companies in North America, with more than 5,400 employees, Williams is focused on connecting North America's significant hydrocarbon resource plays to markets for natural gas and natural gas liquids. Founded in 1908 and Headquartered in Tulsa, Oklahoma, Williams is an industry-leading, investment grade C-Corp with operations across the natural gas value chain including gathering, processing, interstate transportation and storage of natural gas and natural gas liquids. With major positions in top U.S. supply basins, Williams owns and operates more than 30,000 miles of pipelines across 24 U.S. states and has strategic assets in the deepwater Gulf of Mexico, the Rockies, the Pacific Northwest and the Eastern Seaboard that provide natural gas for clean-power generation, heating and industrial use. Williams' operations handle approximately 30% of U.S. natural gas. Its Transcontinental (Transco) Gas Pipeline is the nation's largest-volume interstate natural gas pipeline system. As a responsible member of the energy industry, we support the Federal Energy Regulatory Commission in its mission to provide economically efficient, safe, reliable and secure energy to consumers.

Williams is committed to positively contributing to the communities where we operate, prudently managing environmental impacts, and safeguarding our employees, contractors, and the public.

The boundaries of the emissions data provided in this disclosure inventory exclude corporate offices and focus solely on our direct operations. This boundary and the exclusions are referenced in comments to questions 6.1 and 6.3.

The information in the CDP response may contain or incorporate by reference statements that do not directly or exclusively relate to historical facts. Such statements are "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements relate to anticipated financial performance, management's plans and objectives for future operations, business prospects, outcome of regulatory proceedings, market conditions and other matters. We make these forward-looking statements in reliance on the safe harbor protections provided under the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, included herein that address activities, events or developments that we expect, believe or anticipate will exist or may occur in the future, are forward-looking statements.

Forward-looking statements can be identified by various forms of words such as "anticipates," "believes," "seeks," "could," "may," "should," "continues," "estimates," "expects," "forecasts," "intends," "might," "goals," "objectives," "targets," "planned," "potential," "projects," "scheduled," "will," "assumes," "guidance," "outlook," "in-service date" or other similar expressions. These forward-looking statements are based on management's beliefs and assumptions and on information currently available to management. Certain important factors that could cause actual results to differ, possibly materially, from expectations or estimates reflected in such forward-looking statements can be found in the "Risk Factors" and "Forward-Looking Statements" sections included in Williams's Annual Report on Form 10-K filed with the SEC on February 21, 2019, and in Part II, Item 1A. Risk Factors in our Quarterly Reports on Form 10-Q. Given the uncertainties and risk factors that could cause our actual results to differ materially from those contained in any forward-looking statement, we caution investors not to unduly rely on our forward-looking statements. We disclaim any obligations to, and do not intend to, update any particular forward-looking statement included in this report or announce publicly the result of any revisions to any of the forward-looking statements to reflect future events or developments.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2018	December 31 2018	No	<Not Applicable>

C0.3

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

United States of America

C0.4

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

USD

C1. Governance

C1.1

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

Yes

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Operating Officer (COO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

C1.3

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

Yes

C2. Risks and opportunities

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

C2.3

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

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

Reputation: Stigmatization of sector

Type of financial impact

Other, please specify (Opposition to hydrocarbon infrastructure increases cost of installation and can delay or prevent in service dates)

Company- specific description

As there is increased investment in renewable and other alternative energies, natural gas continues to be key to adding renewables to the power grid. Natural gas is a flexible, lower-emission fuel compared to other hydrocarbons that can quickly provide power when renewable energy sources are not available. However, there are many conflicting messages around fossil fuels that have impacted, and we expect will continue to impact, our ability to permit new developments. We face opposition to operation and expansion of our pipelines and facilities from various individuals and groups. We have experienced, and we anticipate that we will continue to face, opposition to the operation and expansion of our pipelines and facilities from governmental officials, environmental groups, landowners, tribal groups, local groups and other advocates. In some instances, we encounter opposition which disfavors hydrocarbon-based energy supplies regardless of practical implementation or financial considerations. This misinformation often stems from the lack of public knowledge about energy sources and impacts. For example, this disconnect appears in opposition to natural gas which is often used by utilities in conjunction with renewable energy to ensure reliability during unfavorable environmental conditions (e.g. lack of wind and sunshine). Opposition to our operation and expansion can take many forms, including the delay or denial of required governmental permits, organized protests, attempts to block or sabotage our operations, intervention in regulatory or administrative proceedings involving our assets, or lawsuits or other actions designed to prevent, disrupt or delay the operation or expansion of our assets and business. This opposition to hydrocarbon infrastructure increases the cost of installation and can delay in service dates. Any such event that delays or prevents the expansion of our business, that interrupts the revenues generated by our operations, or which causes us to make significant expenditures not covered by insurance, could adversely affect our financial condition and results of operations. In most cases, the increased costs of service that is caused by opposition actually is borne by the consumer.

Time horizon

Current

Likelihood

Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
At this time, we do not have a financial impact figure.

Management method
Our government affairs team works to communicate accurate information on how natural gas is a flexible fuel, which can be used in decarbonizing the grid. According to the U.S. Energy Information Administration, between 2005 and 2017, GHG emissions from the electric sector declined 28 percent over that period. More than 60 percent of this total was attributed to natural gas replacing coal and oil based generation resources. In addition, we have published a 2018 Sustainability Report, which provides information on emissions, partnerships, and our overall efforts around corporate stewardship. We provide education on the large amount of emissions reductions that we are supporting. For example, we collaborated with MJ Bradley, Environmental Defense Fund, and National Grid to undertake a lifecycle analysis of emissions from the Northeast Supply Enhancement (NESE), a proposed expansion of our largest natural gas pipeline designed to serve New York City markets. This supports the planned heating oil-to-natural-gas conversion program will displace 13 million barrels of heating oil and reduce carbon dioxide emissions in New York City and Long Island by up to 3 million tons per year. In addition, it aligns with National Grid's 80x50 pathway to reduce greenhouse gas (GHG) emissions by 80 percent by 2050 and will advance New York City nearly 10 percent toward meeting the carbon emissions goals outlined in its carbon plan by 2030.

Cost of management

Comment

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Direct operations

Risk type
Transition risk

Primary climate-related risk driver
Policy and legal: Mandates on and regulation of existing products and services

Type of financial impact
Other, please specify (Increased operating costs (e.g., higher compliance costs, increased insurance premiums) and denied or delayed project approvals)

Company- specific description
Climate change regulations and the costs associated with the regulation of greenhouse gas (GHG) emissions have the potential to result in increased costs to operate and maintain our facilities. If we are unable to recover or pass through a significant level of our costs related to complying with climate change regulatory requirements, it could have a material adverse effect on our operations and financial condition. To the extent financial markets view climate change and GHG emissions as a financial risk this could negatively impact our cost of and access to capital. For example, the U.S. Environmental Protection Agency (EPA) and several states that Williams operates in have updated regulations aimed to reduce fugitive methane emissions at natural gas production, processing and compression facilities. Additional states are in the rule-making process to regulate methane emissions, or are considering carbon cap and trade mechanisms. We anticipate with the growing activity at the state level around making climate commitments that are setting either state-wide or sector wide targets around carbon neutrality that these risks will increasingly be passed on to the business. Additionally, Williams' ability to procure the necessary permits to maintain and expand its operations might be limited by these initiatives to decarbonize. Advocates of the "keep it in the ground" movement and other opponents of natural gas might leverage these larger objectives to slow or block our permits which would limit William's ability to operate in certain regions or markets even when the projects actually reduce emissions in a region. Misinformation and lack of public knowledge about the emissions and their true sources causes opposition.

Time horizon
Medium-term

Likelihood
About as likely as not

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We are not reporting a financial impact figure.

Management method
To manage potential risks from GHG related policies, we engage and educate state and federal agencies during the rule making processes. Simultaneously, we have implemented programs as well as invested in different technologies to help reduce methane and other GHG emissions in our operations, which may reduce costs related to future GHG regulations. Under the EPA's Natural Gas STAR program and as a member of the Interstate Natural Gas Association of America (INGAA), Williams has committed to implement cost-effective methane emission reductions. Efforts to reduce methane emissions include conducting leak detection and repairs at facilities, reducing blowdowns by increasing system reliability, replacing compressor rod packing, installing electric motors on compressors and glycol circulation pumps, installing flares and thermal oxidizers to control methane emissions, and replacing wet seal compressors with dry seal compressors. Reported methane emissions from our gas processing plants and transmission compressor stations have been reduced by more than 53% since 2012, while throughput at these facilities increased 21%. The proposed Emissions Reduction Program for our Transco system aims to replace 138 natural gas reciprocating turbine driven compressor units at 16 facilities over a five-year period. If approved, it is estimated that this will reduce Transco's methane emissions by 55% from the compressor units compared to projected future emission levels.

Cost of management

Comment

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Direct operations

Risk type
Physical risk

Primary climate-related risk driver
Acute: Increased severity of extreme weather events such as cyclones and floods

Type of financial impact
Increased capital costs (e.g., damage to facilities)

Company- specific description
Our assets and operations, particularly those located offshore and our customers assets and operations can be adversely affected by hurricanes, floods, earthquakes, landslides, tornadoes, fires, and other natural phenomena and weather conditions, including extreme or unseasonable temperatures. An impairment of our assets, including property, plant, and equipment, intangible assets, and/or equity-method investments, could reduce our earnings. Since Williams' onshore facilities are largely underground, we are less susceptible to weather events than many of our competitors in the infrastructure sector. Our offshore facilities are primarily located along the Gulf Coast, and flowrate through these facilities can be adversely impacted during severe weather events that require offshore producers to shut-in production for safety. A significant disruption in our or our customers' operations or a significant liability for which we are not fully insured could have a material adverse effect on our business, financial condition, results of operations, and cash flows. Opposition to fossil fuel infrastructure causes cost of service to consumers to go up dramatically.

Time horizon

Medium-term

Likelihood
More likely than not

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We are not reporting a financial impact figure

Management method
The Williams Integrated Management System (WIMS) platform provides the company's polices, requirements, guidelines, procedures, specifications and other documents that are used to design, build, operate, and maintain our assets. To manage our potential risks from physical weather and/or climate related events, we use WIMS, Standard Operating Procedures, and System Integrity Plans. We also have invested in insurance coverage for potential property damage and business interruption. Our business continuity planning and training reviews potential impacts from future weather and climate events, and helps us respond when challenges arise.

Cost of management

Comment

C2.4

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

C2.4a

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

Identifier
Opp1

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of more efficient production and distribution processes

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

Company-specific description
Williams is continually working to improve our operational performance and increase access to natural gas by being the premier provider of large-scale energy infrastructure, as well as exploring opportunities to improve efficiency our pipeline systems. There

are additional emission reduction and cost reduction opportunities from information and technology transfer with industry partners. These opportunities are realized by implementing new technologies and best management work practices, and participating in research. Further, many of Williams's customers have begun reporting GHG emissions and participating in climate change initiatives, such as ONE Future, INGAA Methane Commitments, API Environmental Partnership, EPA Methane Challenge and the Regional Greenhouse Gas Initiative. By reducing its own emissions, Williams can assist its customers' efforts to minimize environmental impacts.

Time horizon
Current

Likelihood
Virtually certain

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
At this time, we do not have a financial impact figure.

Strategy to realize opportunity
Williams has reduced GHG emissions on our interstate pipelines by connecting the best natural gas supplies to nearby markets, due to shorter transport distances and decreased compressor-driver energy requirements. Williams continues to explore growth opportunities that are combined with existing competitively advantaged infrastructure, allowing significant operating and capital cost synergies. From 2019-2023 we are proposing to replace 138 aged natural gas reciprocating and turbine driven compressors at the 16 highest-emitting stations in our Transco system with new, state of the art compression, which will help to reduce operating costs and reduce methane by an estimated 55% across Transco. Williams actively engages in industry research focused on increasing operational and fuel efficiency, spearheaded by the Pipeline Research Council International and the Gas Machinery Research Council. We also participate in industry associations that provide opportunities to discuss current and developing air emission technologies and work practices. In June 2019, Williams joined ONE Future Coalition, a group of natural gas companies committed to voluntarily reduce methane emissions by identifying policy and technical solutions that better manage emissions associated with the production, processing, transmission and distribution of natural gas. ONE Future members set a goal to collectively reduce methane emissions in the natural gas supply chain to 1% by 2025.

Cost to realize opportunity

Comment

Identifier
Opp2

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Markets

Primary climate-related opportunity driver
Access to new markets

Type of financial impact
Increased revenues through access to new and emerging markets (e.g., partnerships with governments, development banks)

Company-specific description
As natural gas is a flexible, lower-emission fuel compared to other hydrocarbons such as coal, natural gas can be an ideal partner for renewable energy sources like wind and solar power for the national grid since it can quickly provide power when renewable sources are not available. Natural gas provides an opportunity for states and consumers to reduce emissions by switching from traditional fuels used for heating and power generation, and align with state-driven climate or GHG policy ambitions. This provides

an avenue for Williams to access new markets.

Time horizon
Current

Likelihood
Virtually certain

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
At this time, we are not providing a financial impact figure.

Strategy to realize opportunity
Williams continues to evaluate and introduce our products to different markets in the United States. The application to expand our pipeline through the Northeast Supply Enhancement project (NESE) is an example of our strategy to continue to realize our opportunities in markets where natural gas can be beneficial, both for an economic and environmental standpoint. Natural gas continues to be the preferred fuel type for new power generation projects in the United States, and Williams pursues expansion opportunities to serve these markets. Williams also continues to grow its business in providing gas supply for liquefied natural gas (LNG) exports. There is growing demand across the world for lower-emission energy that is accessible and affordable. Williams is uniquely positioned to supply gas for LNG export along its Transco pipeline system. LNG exports volumes are projected to grow by an additional 13.4 Bcf/d along Transco states through 2028.

Cost to realize opportunity

Comment

Identifier
Opp3

Where in the value chain does the opportunity occur?
Customer

Opportunity type
Products and services

Primary climate-related opportunity driver
Development and/or expansion of low emission goods and services

Type of financial impact
Increased revenue through demand for lower emissions products and services

Company-specific description
As more commitments are made to achieve carbon neutrality, countries, states, cities, and companies are looking for pathways to meet these ambitious targets. Many of these entities have already made the switch around electricity to renewable fuels and so the focus shifts to other sources of emissions including natural gas. To meet this demand, we are identifying more biogenic and renewable sources of fuel to supply to our customers. A commonly available renewable fuel is the methane that is a by-product of the waste decomposition process that occurs in landfills. Expertise in collecting and processing methane from landfills for consumption, paired with Williams' expertise in pipeline operations, makes for a win-win for all, including the environment.

Time horizon
Current

Likelihood
Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
At this time, we do not have a financial impact figure.

Strategy to realize opportunity
Renewable natural gas is considered by the U.S. EPA to have the lowest “well-to-wheel” emissions of all transportation fuels, including electricity so we are always looking for new sources of renewable gas and are always identifying new partnerships. Williams works with companies in Washington, Texas, and Ohio, as well as a public utility district, to transport landfill-produced methane. For example, Williams gathers, treats and transports an estimated 2 million standard cubic feet of gas per day from the Arlington Landfill in Texas. Additionally, the Roosevelt Regional Landfill in Washington, has a landfill gas-to-energy project that produces renewable electricity generated by burning landfill gases. In May 2017, a gas meter station was constructed, which includes a 2.9-mile interconnect with Williams’ Northwest Pipeline. Williams also has worked for more than a decade with utilities in Washington at the Cedar Hills Landfill. In the Northeast, we brought our first renewable gas project into service on our Flint Gas Gathering System in 2018. Partnering with Montauk Energy, Williams now operates a receipt point for natural gas produced by the Apex Landfill in Ohio. Methane is captured by drilling small wells across the landfill’s surface, then gathered at an onsite treatment facility where the gas composition is brought to Williams’ pipeline specifications. After ensuring the landfill-produced methane is pipeline quality, Williams receives and markets the gas on our system.

Cost to realize opportunity

Comment

C3. Business Strategy

C3.1

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

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?
No target

C4.1c

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

	Primary reason	Five-year forecast	Please explain
Row 1	Other, please specify (● Emissions reductions on large projects)	We continue to grow the business and expect our emissions intensity will remain the same or decrease, as we continue to connect the best supplies to the best markets.	As we seek to maximize natural gas resources to meet growing demand, we are working to reduce GHG emissions from our operations. Rather than set a goal or rating, we opportunistically seek projects that drive large reductions. We have focused our mitigation efforts on specific projects that are meaningful drivers of emissions reductions. In part, due to these efforts we reduced our reported methane emissions from gas processing plants and transmission compressor stations more than 53 percent since 2012. Over the same period, the throughput at these facilities increased 21 percent. For example, Williams has proposed a 1.2 billion dollar investment in the Transco system to reduce emissions by 70 percent as part of the Transco Emissions Reduction Program proposal filed with FERC. Williams is actively pursuing these types of meaningful projects and communicating these efforts to investors and the Board. We are also engaging in partnerships with our industry peers. In 2019, Williams joined Our Nation's Energy ONE Future Coalition, Inc., a group of natural gas companies working to voluntarily reduce methane emissions by identifying policy and technical solutions that better manage emissions associated with the production, processing, transmission and distribution of natural gas. ONE Future members set a goal to collectively reduce methane emissions in the natural gas supply chain to 1 percent by 2025.

C4.2

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

Target
Other, please specify (Reportable air releases)

KPI – Metric numerator
15% reduction of in number of reportable air releases.

KPI – Metric denominator (intensity targets only)
Not applicable

Base year
2017

Start year
2017

Target year
2018

KPI in baseline year
61

KPI in target year
48

% achieved in reporting year
100

Target Status
Achieved

Please explain
Achieve a 15% reduction in the number of reportable air releases from 2017 levels in 2018.

Part of emissions target
This is the only target.

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

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

C4.3b

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

Initiative type

Fugitive emissions reductions

Description of initiative

Oil/natural gas methane leak capture/prevention

Estimated annual CO2e savings (metric tonnes CO2e)

1330000

Scope

Scope 1

Voluntary/Mandatory

Voluntary

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

10200785

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

4643004

Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

As a U.S. EPA Natural Gas STAR member, we successfully implemented and reported pressure-reduction measures using recompression to lower gas line pressure before pipeline maintenance. These measures help reduce methane emissions and make more natural gas available for sale. The gas recovered by utilizing recompression ahead of pipeline blowdowns in 2018 resulted in 53,160 metric tons of methane, or 1.33 million metric tons of carbon dioxide-equivalent emissions not being emitted. Monetary savings are estimated from the gas recovered at $3.50 USD/mcf, but are not realized by Williams. Williams has also proposed a 1.2 billion dollar investment in the Transco system as part of the Transco Emissions Reduction Program proposal filed with FERC. The proposed Emissions Reduction Program for our Transco system aims to replace 138 natural gas reciprocating turbine driven compressor units at 16 facilities over a five-year period. If approved, it is estimated that this will reduce Transco's methane emissions by 55% from the compressor units compared to projected future emission levels.

C5. Emissions methodology

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.

The Greenhouse Gas Protocol: Public Sector Standard

US EPA Mandatory Greenhouse Gas Reporting Rule

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
10480000

Start date
January 1 2018

End date
December 31 2018

Comment
The consolidation approach is operational control and includes CO2, CH4, and N2O. Emissions are calculated using the U.S. EPA Mandatory Greenhouse Gas Reporting Rule methodology for all assets that Williams owned and operated for the full calendar year. They do not include sources of Scope 1 emissions from office buildings and company vehicles.

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

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
1096000

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2018

End date
December 31 2018

Comment
Gross location based energy indirect (Scope 2) GHG emissions in millions of metric tons of CO2-equivalent. The consolidation approach is operational control. Emissions were calculated using U.S. EPA Power Profiler Emissions Tool 2016, using emission factors from U.S. EPA eGRID2016 multiplied by kWh energy use for all assets that Williams owns and operates. Corporate building energy use is excluded.

C6.5

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

Purchased goods and services

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
We have not evaluated our Scope 3 emissions and thus are unable to evaluate if this will be a significant source of Scope 3 emissions.

Capital goods

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
We have not evaluated our Scope 3 emissions and thus are unable to evaluate if this will be a significant source of Scope 3 emissions.

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

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
We have not evaluated our Scope 3 emissions and thus are unable to evaluate if this will be a significant source of Scope 3 emissions.

Upstream transportation and distribution

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
We have not evaluated our Scope 3 emissions and thus are unable to evaluate if this will be a significant source of Scope 3 emissions.

Waste generated in operations

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Since we have operations across the natural gas value chain including gathering, processing, interstate transportation and storage of natural gas and natural gas liquids we have proportionally small amounts of waste generated in operations. Therefore, we do not anticipate this being a material source of Scope 3 emissions.

Business travel

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Since we have operations across the natural gas value chain including gathering, processing, interstate transportation and storage of natural gas and natural gas liquids the emissions from business travel are proportionally small. Therefore, we do not anticipate this being a material source of Scope 3 emissions.

Employee commuting

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Since we have operations across the natural gas value chain including gathering, processing, interstate transportation and storage of natural gas and natural gas liquids we have proportionally small amounts of emissions from employee commuting. Therefore, we do not anticipate this being a material source of Scope 3 emissions.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Since we have operations across the natural gas value chain including gathering, processing, interstate transportation and storage of natural gas and natural gas liquids we have proportionally small amounts of emissions from upstream leased assets. Therefore, we do not anticipate this being a material source of Scope 3 emissions.

Downstream transportation and distribution

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Since we have operations across the natural gas value chain including gathering, processing, interstate transportation and storage of natural gas and natural gas liquids, gas and natural gas liquids products are transferred by third party truck, rail, and pipeline systems. We estimate that downstream transportation and distribution will be a significant source of Scope 3 emissions.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Since we have operations across the natural gas value chain including gathering, processing, interstate transportation and storage of natural gas and natural gas liquids we have proportionally small amounts of emissions from processing of sold products.

Use of sold products

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Since we have operations across the natural gas value chain including gathering, processing, interstate transportation and storage of natural gas and natural gas liquids we anticipate that the use of sold products will be a significant source of Scope 3 emissions.

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Since we have operations across the natural gas value chain including gathering, processing, interstate transportation and storage of natural gas and natural gas liquids we do not have end of life treatment of sold products. Therefore, we do not anticipate this being a material source of Scope 3 emissions and we estimate the emissions to be zero.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Since we have operations across the natural gas value chain including gathering, processing, interstate transportation and storage of natural gas and natural gas liquids we have proportionally small amounts of emissions from downstream leased assets. Therefore, we do not anticipate this being a material source of Scope 3 emissions.

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Since we have operations across the natural gas value chain including gathering, processing, interstate transportation and storage of natural gas and natural gas liquids we do not have franchises. Therefore, we do not anticipate this being a material source of Scope 3 emissions and we estimate the emissions to be zero.

Investments

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
We have not evaluated our Scope 3 emissions and thus are unable to determine if this will be a significant source of Scope 3 emissions.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Since we have operations across the natural gas value chain including gathering, processing, interstate transportation and storage of natural gas and natural gas liquids we do not have other (upstream) emissions. Therefore, we do not anticipate this being a material source of Scope 3 emissions and we estimate the emissions to be zero.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Since we have operations across the natural gas value chain including gathering, processing, interstate transportation and storage of natural gas and natural gas liquids we do not have other (downstream) emissions. Therefore, we do not anticipate this being a material source of Scope 3 emissions and we estimate the emissions to be zero.

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
0.001332719

Metric numerator (Gross global combined Scope 1 and 2 emissions)
11576000

Metric denominator
unit total revenue

Metric denominator: Unit total
8686000000

Scope 2 figure used
Location-based

% change from previous year
0

Direction of change
No change

Reason for change
This is our first year reporting Scope 2 emissions so we are unable to calculate the percentage change. When we evaluate just our Scope 1 footprint, emissions decreased from 12.27 million MT CO2e in 2017 to 10.48 million MT CO2e in 2018. In the past, we have chosen not to report this metric. When gross revenue is used as the denominator in the intensity metric, emissions intensity can be distorted. This does not provide an equivalent comparison. In our sector, some companies have a higher proportion of commodity sales in reported revenue which makes the total revenue number higher. For Williams, ~97% of 2019 estimated Gross Margin is from Fee-based Sources, so we only have a small amount of commodity sales to boost our revenue numbers. Given this issue, the Scope 1 GHG emissions intensity (Scope 1 CO2e/MMcf) is the most relevant metric for comparison. This metric is provided below.

Intensity figure
0.92

Metric numerator (Gross global combined Scope 1 and 2 emissions)
11576000

Metric denominator
metric ton of product

Metric denominator: Unit total

Scope 2 figure used
Location-based

% change from previous year
0

Direction of change
No change

Reason for change
This is our first year reporting Scope 2 emissions so we are unable to calculate the percentage change. When we evaluate just our Scope 1 footprint, emissions decreased from 12.27 million MT CO2e in 2017 to 10.48 million MT CO2e in 2018.

C7. Emissions breakdowns

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?

This is our first year of reporting, so we cannot compare to last year

C8. Energy

C8.2

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

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

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	0	44331298	44331298
Consumption of purchased or acquired electricity	<Not Applicable>	0	2204448	2204448
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	0	46535746	46535746

C12. Engagement

C12.1

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

Yes, our customers

Yes, other partners in the value chain

C14. Signoff

C-FI

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

C14.1

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

	Job title	Corresponding job category
Row 1	Chief Executive Officer	Chief Executive Officer (CEO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	Public or Non-Public Submission	I am submitting to
I am submitting my response	Public	Investors

Please confirm below

I have read and accept the applicable Terms