Welcome to your CDP Climate Change Questionnaire 2021

C0. Introduction

C0.1

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

Williams (NYSE: WMB) is committed to being the leader in providing infrastructure that safely delivers natural gas products to reliably fuel the clean energy economy. 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 connects the best supplies with the growing demand for clean energy. Williams owns and operates more than 30,000 miles of pipelines system wide — including Transco, the nation’s largest volume and fastest growing pipeline — and handles approximately 30% of the natural gas in the United States that is used every day for clean-power generation, heating and industrial use. Our Core Values are engrained in how we do our work, every day, on behalf of our key stakeholders, including our communities, customers, employees and investors. At Williams, we are:

- **Authentic:** Our integrity cannot be compromised; for more than a century we’ve remained true to ourselves, always striving to do the right thing.
- **Safety Driven:** Safeguarding our people and neighbors is engrained in our culture and fundamental to everything we do.
- **Reliable Performers:** We stand behind our reputation as a dependable and trustworthy business that delivers on our promises.
- **Responsible Stewards:** We are dedicated to strengthening our people and communities and to protecting the environment.

The boundaries of the emissions data provided in this disclosure inventory exclude corporate offices and focus solely on our direct operations that we own and operate. 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
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 24, 2020, 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.

<table>
<thead>
<tr>
<th>Reporting year</th>
<th>Start date</th>
<th>End date</th>
<th>Indicate if you are providing emissions data for past reporting years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>January 1, 2020</td>
<td>December 31, 2020</td>
<td>No</td>
</tr>
</tbody>
</table>

C0.3

(C0.3) Select the countries/areas 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
C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-OG0.7

(C-OG0.7) Which part of the oil and gas value chain and other areas does your organization operate in?

Row 1

Oil and gas value chain
- Midstream

Other divisions

C1. Governance

C1.1

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

Yes

C1.1a

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

<table>
<thead>
<tr>
<th>Position of individual(s)</th>
<th>Please explain</th>
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</thead>
<tbody>
<tr>
<td>Board-level committee</td>
<td>The Board of Directors oversees the effectiveness of the company’s environmental, social and governance (ESG) risk management and ensures management is devoting adequate attention to ESG matters, including those related to climate change. While climate-related topics can arise in the context of all committees and the full Board, the Governance and Sustainability Committee within Williams’ Board has primary oversight on climate change matters because the Governance and Sustainability Committee oversees the company’s ESG performance and disclosure.</td>
</tr>
</tbody>
</table>
The committee has responsibility for providing general direction on decisions regarding the sustainability of the business and tracking the ESG strategy. This includes reviewing Williams' environmental and climate-related policy statements. The committee regularly reports to the full Board of Directors on relevant topics for further discussion. As an example, Williams presented a Roadmap to achieving our 2030 climate commitments to the Board in 2021 for input. Our strategy to address the risks and opportunities of climate change includes connecting the best natural gas supplies to the best markets; funding and participating in research related to emissions detection, quantification and reduction technologies; clean energy opportunities; advocating for sound, actionable energy and climate change policies; and collaborating with peer companies through key industry initiatives and trade organizations. Our Roadmap will support in key decisions for our climate strategy including capital allocation for relevant initiatives.

Climate change topics can also arise within the Environmental Health and Safety (EHS) Committee, which has responsibility for environmental issues. Specifically, the committee provides oversight on compliance with applicable and proposed environmental legislation, regulations and orders; conformance with industry standards and best practices; asset reliability; operational risk management; and asset integrity plans and programs.

The Audit Committee also has oversight of climate risks as they arise within the Enterprise Risk Management framework. The Audit Committee is responsible for discussing policies with respect to risk assessment and risk management, including with regards to major financial risk exposures and the steps management has taken to monitor and control such exposures.

### C1.1b

**Provide further details on the board's oversight of climate-related issues.**

<table>
<thead>
<tr>
<th>Frequency with which climate-related issues are a scheduled agenda item</th>
<th>Governance mechanisms into which climate-related issues are integrated</th>
<th>Please explain</th>
</tr>
</thead>
</table>
| Scheduled – some meetings | Reviewing and guiding strategy  
Reviewing and guiding major plans of action  
Reviewing and guiding risk management policies  
Reviewing and guiding business plans | The Board of Directors participates in a strategic risk assessment process annually to identify the top 10 risks for Williams, during which climate-related topics are sometimes considered.  
Although climate change is not always prioritized during the strategic risk assessment process, it is specifically addressed by the Governance and Sustainability Committee |
C1.2

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

<table>
<thead>
<tr>
<th>Name of the position(s) and/or committee(s)</th>
<th>Responsibility</th>
<th>Frequency of reporting to the board on climate-related issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Operating Officer (COO)</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>More frequently than quarterly</td>
</tr>
<tr>
<td>Other, please specify Director of Environmental Social, and Governance</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
<td>More frequently than quarterly</td>
</tr>
</tbody>
</table>

C1.2a

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

Williams’ Chief Operating Officer (COO) is the highest management-level position with responsibility for climate-related risks and opportunities. The COO sits on the Executive Officer Team (EOT) and reports directly to the Chief Executive Officer (CEO) of Williams who has ultimate responsibility for the oversight and management of all company risks. As part of this role, the COO is responsible for the operational aspect of climate change, including oversight of implementing emissions reduction initiatives. The COO has responsibility for climate-related issues because the majority of Williams’ climate risk is associated with its direct operations. To reduce the carbon intensity and by extension risk, there are strategic initiatives underway to reduce fugitive methane emissions through enhanced programs and equipment, and mitigate greenhouse gas emissions by utilizing solar energy at compression stations.

To further integrate overall environmental, social, and governance (ESG) strategy including climate change into the day to day activities across the organization, Williams appointed an ESG Director in 2020. Because these responsibilities tie directly to our corporate strategy, the ESG Director reports to Williams’ Vice President Corporate Strategic Development. The VP of
Corporate Strategic Development reports to the SVP of Corporate Strategic Development who then reports to the CEO.

The ESG Director is responsible for engaging with shareholders and other stakeholders to understand ESG expectations and communicate our performance, as well as for raising the visibility of Williams’ ESG capabilities. The ESG Director collaborates with several groups within the organization, including Investor Relations, Communications & Corporate Social Responsibility, Government Affairs & Public Outreach, and the Corporate Secretary, to promote effective delivery of ESG-related activities and communicate results to investors and key stakeholders.

C1.3

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

<table>
<thead>
<tr>
<th>Provide incentives for the management of climate-related issues</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
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</tbody>
</table>

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

<table>
<thead>
<tr>
<th>Entitled to incentive</th>
<th>Type of incentive</th>
<th>Activity incentivized</th>
<th>Comment</th>
</tr>
</thead>
</table>
| Corporate executive team                                   | Monetary reward      | Emissions reduction target | There are two emissions reduction targets that drive internal performance and these include: Williams’ reportable releases metric is an internal environmental metric that influences the short-term, annual incentive for individual employees. This refers to any type of reportable air releases determined by state regulations. In the context of climate change, reportable air releases include methane. The Chief Operating Officer’s monetary incentive includes performance against Williams’ annual target to reduce reportable releases by 10%.

Williams established a loss of primary containment target that includes the unplanned or uncontrolled release of methane. Achieving this target influences short-term, annual incentives for all employees eligible for our Annual Incentive Program. The goal is weighted at 5% of our 2020 Annual Incentive Program for all employees, including the executive officer team (Chief Executive Officer and Chief Operating Officer). |
C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

<table>
<thead>
<tr>
<th></th>
<th>From (years)</th>
<th>To (years)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Medium-term</td>
<td>3</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Long-term</td>
<td>10</td>
<td>100</td>
<td></td>
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</tbody>
</table>

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

We define strategic impacts on our business though an annual, strategic risk assessment that aligns with our long-term corporate strategy process. Because risk management is embedded within our company’s operations through a decentralized, cross-functional approach, we use a strategic risk assessment to look at how risks across the enterprise may impact our strategy. We utilized the “Enterprise Risk Management Integrated Framework” developed by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) as the basis of our strategic risk assessment. COSO is a joint initiative of five private sector organizations, the American Accounting Association, American Institute of Certified Public Accountants, Financial Executives International, the Association of Accountants and Financial Professionals in Business and the Institute of Internal Auditors. COSO is the leading organization in developing enterprise risk management, internal controls, and fraud deterrence frameworks.

This systematic process is facilitated by our corporate strategy team and identifies top risks that could have the greatest impact on achievement of our strategy. It incorporates leaders and risk process owners throughout the organization to identify risks. An annual survey is conducted to assess, rate and prioritize risks that could impact Williams’ strategic objectives. The survey includes a qualitative and quantitative assessment. Risks are rated on an impact scale that includes but is not limited to substantive financial impact, which ranges from an annual financial loss/cash flow impact of $10 million to greater than $300 million. Risk measurement scales are also used to understand the likelihood of a risk and assess the effectiveness of risk controls. The risk measurement scale enables Williams to provide a measurable, consistent and quantitative rationale for selecting top risks.
Risk discussions are held with key stakeholders and our executive management team to validate survey results. Williams assigns a risk tolerance and executive monitoring and mitigation accountability for each top risk. Top risks identified through the process are presented to Board of Directors annually during strategy discussions. While climate change was not identified as a top risk for Williams in 2020, environmental topics including climate change are incorporated as part of the Board of Directors strategy discussion.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

<table>
<thead>
<tr>
<th>Value chain stage(s) covered</th>
<th>Direct operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk management process</td>
<td>Integrated into multi-disciplinary company-wide risk management process</td>
</tr>
<tr>
<td>Frequency of assessment</td>
<td>Annually</td>
</tr>
<tr>
<td>Time horizon(s) covered</td>
<td>Short-term, Medium-term</td>
</tr>
</tbody>
</table>

Description of process

An annual survey is conducted to assess, score and prioritize risks that could impact Williams’ strategic objectives. All risks are assigned to one of 30 risk categories that are consolidated into four classifications: Strategic, Operational, Compliance and Reporting. We hold a risk workshop with key stakeholders and executive management to validate top risks, agree on risk tolerance, and assign accountability for risk monitoring and mitigation.

Williams uses a risk measurement scale to understand likelihood and velocity of risks. The definition of likelihood enables Williams to measure risks that can occur within the next three years. The top risks identified through the process are those that have the highest potential to produce a substantive financial or strategic impact on our business. We focus on the top risks identified through the process, which are presented to Board of Directors annually.

Physical Risks:

(Situation) Extreme weather conditions can increase costs and contribute to increased system stresses.
(Task) Acute and chronic physical risks, including those associated with climate change, are included as part of our evaluation of catastrophic loss and business interruptions during our annual strategic risk assessment.

(Action) We evaluate physical risks to our operations by considering how catastrophic loss and business interruptions from hurricanes can overwhelm the controls we have in place. Understanding these potential impacts enables us to calculate sufficient redundancy in our compression systems and effectively manage the integrity of our compressor stations.

(Result) Williams has been able to reliably deliver natural gas and natural gas liquid processing during severe weather events with limited or no service interruptions. Williams’ robust pipeline integrity and maintenance efforts ensure our systems operate with the least disruption possible. In 2020, our transmission reliability was 99.88%.

Transition Risks:

We also evaluate transition risks, including reputational risk. We face reputational risks that could result in a loss of ability to compete and ultimately revenue due to perceptions that Williams or the industry does not effectively manage its business, deal fairly with stakeholders or accept responsibility to the community.

(Situation) We have faced reputational risks in Pennsylvania, New York and New Jersey, where the permitting environment for expansion projects is increasingly difficult due to local, public opposition related to climate change and the negative perception of natural gas, including doubt about the role it plays in a clean energy future.

(Task) One way we address these risks is to partner with local, respected institutions to analyze project benefits to local communities so that those benefits can be more effectively communicated.

(Action) For example, in 2020, Williams commissioned Rutgers University, to conduct an economic analysis of our proposed Regional Energy Access project.

(Result) The outcomes of this study will be used to inform stakeholders about the forthcoming benefits of the project, therefore mitigating reputational risk.

C2.2a

(C2.2a) Which risk types are considered in your organization’s climate-related risk assessments?

<table>
<thead>
<tr>
<th>Relevance &amp; inclusion</th>
<th>Please explain</th>
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<tbody>
<tr>
<td></td>
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9
<table>
<thead>
<tr>
<th>Current regulation</th>
<th>Relevant, always included</th>
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<tbody>
<tr>
<td></td>
<td>We consider the risks that existing climate change laws and regulations can have on our business as part of the legislative and regulatory risk category that is included within our annual strategic risk assessment. An example of an existing climate-related regulation is mandatory U.S. Environmental Protection Agency greenhouse gas reporting requirements. If we are unable to recover or pass through a significant level of our costs related to complying with existing climate change regulatory requirements imposed on us it could have a material adverse effect on our results of operations and financial condition.</td>
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<td></td>
<td>Example: For example, our ability to obtain necessary permits and approvals is impacted by climate regulation. Some state regulators are not approving permits necessary for the construction of new gas pipelines based on environmental concerns, including climate change. In May 2020, Williams’ permit for our gas pipeline was rejected by the New York State Department of Environmental Conservations (DEC). Several communities in New York and Massachusetts are subject to moratoriums on new gas connections due to resulting fuel shortages.</td>
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<table>
<thead>
<tr>
<th>Emerging regulation</th>
<th>Relevant, sometimes included</th>
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<tr>
<td></td>
<td>We consider the risks that new climate change laws or greenhouse gas regulations could have on our business as part of the legislative and regulatory strategic risk category that is included within our annual strategic risk assessment process. For example, we assess how climate change regulations and the costs associated with the regulation of greenhouse gas emissions have the potential to affect our business.</td>
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<td></td>
<td>Regulatory actions by the U.S. Environmental Protection Agency or the passage of new climate change laws or regulations such as carbon pricing or cap and trade (currently being considered by some states that would affect Williams’ operations) could result in increased costs to operate and maintain our facilities, install new emission controls on our facilities or administer and manage our greenhouse gas compliance program. We believe it is possible that future governmental legislation and/or regulation may require us either to limit greenhouse gas emissions associated with our operations or to purchase allowances for such emissions. Several states that Williams operates in (Colorado, Pennsylvania, Virginia, New York, Maryland, and Ohio) already have updated regulations aimed to reduce fugitive methane emissions at natural gas processing and compression facilities. We evaluate the potential for increased costs associated with installing new emission controls or changing how we manage our greenhouse gas reporting.</td>
</tr>
<tr>
<td>Technology</td>
<td>Relevant, sometimes included</td>
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<tr>
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<tr>
<td></td>
<td>While not included as part of our annual strategic risk assessment, we evaluate the likelihood of technology disrupting our business as part of our qualitative scenario analysis process. One such scenario is “The Green Transformation,” which evaluates the associated business impacts of fossil fuels being phased out quicker than our other estimates anticipate due to increasing cost-competitiveness of renewable energy technologies such as solar power.</td>
</tr>
<tr>
<td></td>
<td>Example: For example, the Green Transformation evaluates the potential growth of solar and makes the assumption that there will be continued declines of capital costs for solar supported by federal tax credits and higher state-level renewable targets. As a result, we are in the process of implementing 16 solar projects. Beyond just scenario analysis, Williams established a dedicated team to explore the ongoing development of the renewables business.</td>
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</table>

<table>
<thead>
<tr>
<th>Legal</th>
<th>Relevant, sometimes included</th>
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<tbody>
<tr>
<td></td>
<td>We consider business interruptions from potential lawsuits as a component of operational risks, which are evaluated as part of our annual strategic risk assessment process. For example, our business could be affected by the potential for lawsuits against greenhouse gas emitters, based on links drawn between greenhouse gas emissions and climate change. Lawsuits stemmed from opposition to fossil fuels can disrupt or delay the operation or expansion of our assets.</td>
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<tr>
<td></td>
<td>Example: While we have not had any material legal implications in the past, we have experienced opposition to some of our expansion projects in the past including the Northeast Supply Enhancement (NESE) pipeline. Other peers in the oil and gas industry have faced lawsuits regarding climate change issues such as emissions reduction and discrepancies in reporting.</td>
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<table>
<thead>
<tr>
<th>Market</th>
<th>Relevant, always included</th>
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<tr>
<td></td>
<td>While not included as part of our annual strategic risk assessment, we evaluate business risks associated with changing market conditions and customers shifting to renewable sources of fuels. Adverse impacts on the oil and gas industry related to the worldwide social and political environment, including uncertainty or instability resulting from climate change, may also adversely affect demand for our services.</td>
</tr>
<tr>
<td></td>
<td>Example: Our “The Green Transformation” scenario evaluates the associated business impacts of fossil fuels being phased out quicker than our other scenarios anticipate. This scenario included the assumption that global LNG supply outpaces demand growth long-term, global energy demand growth slows overall with efficiency improvements, renewables capture a larger share and gas gets replaced by renewables in European power markets. We are responding to this risk by investing in other low-carbon solutions including solar, hydrogen and CCUS.</td>
</tr>
</tbody>
</table>
Reputation Relevant, always included  

Reputation risk is a category of risk that we include as part of our annual strategic risk assessment. Reputational risks are considered a loss of customers, key employees, community support or a loss of ability to compete due to perceptions that Williams or the industry does not effectively manage its business, deal fairly with stakeholders or accept responsibility to the community. As part of this process, we assess the reputational risks to our business associated with climate change.

Example: Williams’ scenarios used in the risk management process consider the social impacts of climate change and overall sentiment of communities, customers and other stakeholders towards natural gas. For example, the Green Transformation Scenario’s key social assumptions include an aggressive move toward carbon neutrality that drives consumer choice away from non-renewables fuel sources. If we do not adapt to stakeholder expectations and standards, regardless of whether there is a legal requirement to do so, we may suffer from reputational damage and the business, financial condition and/or our stock price could be materially and adversely affected. Investors’ increased focus on climate change and sustainability matters may hinder access to capital, as investors may decide to reallocate capital or to not commit capital as a result of their assessment of a company’s practices.

Acute physical Relevant, sometimes included  

Acute physical risk, including those associated with climate change, are included as part of our evaluation of catastrophic loss and business interruption during our annual strategic risk assessment. Increased frequency and severity of weather events such as hurricanes require more system backup, which can add costs and contribute to increased system stresses, including service interruptions. We calculate sufficient redundancy in our compression systems based on historic weather patterns and maintenance activities. We are building more redundancy in the system and enhancing how operations are built and operated based on historic weather patterns. To the extent the frequency of extreme weather events increases, this could increase our cost of providing service. We may not be able to pass on the higher costs to our customers or recover all costs related to mitigating these acute physical risks.

Example: The winter storms in Texas in February 2021 impacted some of our suppliers resulting in lost revenue for us. Overall, our offshore operations are the most vulnerable to severe weather. We have worked to mitigate the impacts of this risk through physical barriers, strengthening our assets and additional insurance coverage.
Chronic physical risk, including those associated with climate change, are included as part of our evaluation of asset integrity risks during our annual strategic risk assessment. For example, many climate models indicate that climate change is likely to result in rising sea levels and more frequent rain events, which may lead to higher insurance costs or a decrease in available coverage for our assets in areas subject to severe weather. These climate-related changes could damage our physical assets. In particular, Williams’ assets located in low-lying areas near coasts and river banks and facilities situated in hurricane-prone and rain-susceptible regions. Williams evaluates and manages the integrity of our assets.

Example: We use Light Detection and Ranging equipment to actively monitor land movements stemmed from increased rainfall near our compressor stations, especially in risk-prone regions such as the Appalachia.

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.

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Risk 1</th>
</tr>
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</table>

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Reputation

Increased stakeholder concern or negative stakeholder feedback

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Investor advocacy groups, certain institutional investors, investment funds and other influential investors are increasingly focused on environmental, social and governance practices. As part of our corporate strategy, we are working to adapt to investor and stakeholder expectations to prevent reputational damage. We believe natural gas is an
integral part of the low-carbon future, particularly when it comes to displacing higher-emission fuels such as coal and heating oil. Our shareholders may require us to implement sustainability procedures or standards to maintain existing investments or make further investments in us. Investors’ increased focus and activism related to climate change matters could hinder access to capital, as investors may decide to reallocate capital or to not commit capital as a result of their assessment of Williams’ climate practices.

We have experienced, and we anticipate that we will continue to face, opposition to the operation and expansion of our pipelines and facilities from certain governmental officials, environmental groups, landowners, tribal groups, local groups, and other advocates such as what we have encountered with the Northeast Supply Enhancement (NESE) project. NESE was a proposed pipeline project that would help the state of New York transition from higher carbon heating oils to cleaner natural gas. In some instances, we encounter opposition from stakeholders that disfavor hydrocarbon-based energy supplies regardless of practical implementation, emission reductions, societal benefits or financial considerations.

Opposition to the operation and expansion of Williams pipelines and facilities 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 cause a delay of 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.

**Time horizon**
- Short-term

**Likelihood**
- Likely

**Magnitude of impact**
- Medium

**Are you able to provide a potential financial impact figure?**
- Yes, a single figure estimate

**Potential financial impact figure (currency)**
- 172,000,000

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

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

The potential financial impact figure represents a historical cost that Williams incurred after deciding to withdraw investment from one of our projects where the risk adjusted return was diminished due to environmental concerns. In fourth quarter 2019, Williams wrote-off the Constitution Pipeline for approximately $172 million including $145 million for impairment and $27 million for loss on deconsolidation.

Cost of response to risk

369,680

Description of response and explanation of cost calculation

Cost of Response to Risk Calculation: The cost of response to risk of $369,680 provided is the external cost of third-party support for our sustainability strategy and disclosure for 2020. This includes approximately $220,000 for support compiling our Sustainability Report and other ESG disclosures, $38,000 for assurance of key ESG metrics in those disclosures, and $112,000 for overall sustainability strategy support. This spending on sustainability strategy and disclosure mitigates our reputational risk by providing the public, investors, regulators and other important stakeholders with critical information about our ESG practices so they can make accurate and informed evaluations of Williams.

(Situation) Williams takes a number of actions to proactively address reputational concerns with shareholders regarding climate change.

(Task) We engage with shareholders to understand different perspectives, share our viewpoints and resolve issues.

(Action) To support this effort, we appointed an environmental, social and governance (ESG) director to raise the visibility of our ESG capabilities, engage shareholders and communicate our performance.

(Result) We interact with our stakeholders on topics related to climate change using a variety of mechanisms, including in-person meetings, social media, open houses and community events. In 2020, we undertook meetings with 200 regulators, 17 investor focused conference calls, and participated in 18 industry associations during which climate change was an active topic. Additionally, we publish an annual Sustainability Report that provides information on our emissions-reduction efforts and climate change strategy.

Comment

Identifier

Risk 2
Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver
Emerging regulation
Mandates on and regulation of existing products and services

Primary potential financial impact
Increased indirect (operating) costs

Company-specific description
Our operations are subject to environmental laws and regulations, including those that relate to climate change and greenhouse gas emissions, which may expose us to significant costs, liabilities and expenditures. Failure to comply may result in the assessment of administrative, civil and/or criminal penalties, the imposition of remedial obligations, the imposition of stricter conditions on or revocation of permits, the issuance of injunctions limiting or preventing some or all of our operations, and delays or denials in granting permits.

Global energy systems need to undergo major transformations over the next 30 years to reduce carbon emissions. A key challenge to achieving this transformation is the current federal permitting policies. The National Petroleum Council’s energy infrastructure study, co-chaired by the Chief Executive Officer of Williams Companies, calls on Congress to address this challenge by clarifying the National Environmental Protection Act permit process and developing a national climate change policy. The U.S. Council on Environmental Quality division of the Executive Office has issued draft National Environmental Policy Act regulation updates in response to study.

In addition to activities on the federal level, state and regional initiatives could also lead to the regulation of greenhouse emissions sooner than federal regulation and/or independent of federal regulation. These regulations could be more stringent than any federal legislation that may be adopted. For example, the U.S. Environmental Protection Agency and several states that Williams operates in (Colorado, Pennsylvania, Virginia, New York, Maryland, and Ohio) have updated regulations aimed to reduce fugitive methane emissions at natural gas 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, including setting either state-wide or sector-wide targets around carbon neutrality, that these risks will increasingly be passed on to the business.

Time horizon
Medium-term

Likelihood
About as likely as not

Magnitude of impact
Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
83,440,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure
Using the current average voluntary carbon market price per metric ton CO2e at around $8 in 2021, the estimated financial impact would be $83,440,000 for Scope 1 emissions (10430000 metric tons CO2e * $8 per metric ton CO2e). This average voluntary carbon market prices was determined by looking at domestic carbon markets, such as the Regional Greenhouse Gas Initiative (RGGI). In June 2021, the RGGI auction price closed at $7.97 per metric ton CO2e.

Cost of response to risk
485,000

Description of response and explanation of cost calculation
Cost of Response to Risk Calculation: To respond this risk, Williams has invested an estimated $485,000 since 2019 to perform equipment change outs and modifications to achieve methane reductions. This work resulted in an 18% reduction in methane emissions from those sources in 2020 compared to 2019, the equivalent of taking more than 13,000 cars off the road each year. Approximately $70,000 was spent to change out 26 high bleed pneumatic controllers with low bleed pneumatic controllers and approximately $415,000 was spent to replace 6 gas-driven glycol pumps with electric pumps.

With increased stakeholder focus on climate change, we continue to monitor legislative and regulatory developments related to climate change and take efforts to voluntarily reduce GHG emissions from our facilities. To manage potential risks from climate-related policies, we engage with and educate state and federal agencies during the rule-making processes to advocate for sensible regulations on methane and carbon emissions.

(Situation) As a part of our annual enterprise strategy process, scenarios that consider the impact of growing political intervention, emerging regulations or social attitudes toward decarbonization are evaluated and used to inform our long-term strategy.

(Task) We implemented programs and invested in technologies to help reduce methane and other GHG emissions from our operations.
(Action) 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 to control methane emissions, and replacing wet-seal compressors with dry-seal compressors. In addition, thermal oxidizers were installed at eight gathering compressor stations in Ohio and Pennsylvania to assist with methane emissions.

(Result) Through these efforts, we have reduced reported methane emissions from our transmission compressor stations and processing plant operations by more than 41% since 2012, while throughput capacity at these facilities increased 40%. Additionally, Williams continued implementing a methane emissions reduction initiative in 2020 to reduce GHG emissions across our Northeast gathering and processing operations. Continuing to proactively reduce our own emissions will reduce the financial impacts of emerging greenhouse gas regulations in the future.

Comment

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Identifier
Risk 3

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

Risk type & Primary climate-related risk driver
Acute physical
Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact
Increased capital expenditures

Company-specific description
Our assets and operations, particularly those located offshore, as well as our customers’ assets and operations can be adversely affected by hurricanes, floods, earthquakes, landslides, tornadoes, fires and other weather conditions such as 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. Extreme climate conditions generally require more system backup, which can add costs and contribute to increased system stresses, including service interruptions as well as higher insurance costs. Extreme climate conditions outside of our operating territory could also have an impact on our revenues.

Our offshore facilities, four deepwater crude oil pipelines and production platforms
serving the deepwater, are primarily located along the Gulf Coast, and flow rate through these facilities can be adversely impacted during severe weather events that require offshore producers to shut-in production for safety. To prevent asset damage and ensure reliable operations, Williams has performed the following mitigations at our Larose gas processing facility near the Louisiana coastline:
- Elevated dike surrounding the processing facility from 8ft to 12ft.
- Emergency generators installed to run pumps to evacuate the dike in the event of power loss.
- Dedicated emergency generation tie-in point in order to run the entire facility on trucked-in emergency generation power.
- Elevated administration building to avoid flood waters (Building not within dike).

In addition to the changes at the Larose facility, critical offshore junction platforms (GA A244, MP 261A, ST 283, and BA 538) have been built, modified, or are currently being modified to withstand a 300-year hurricane condition as per API-RP2SIM (Structural Integrity Management). The formal criteria recognized by BSEE currently calls for structures to withstand a 100-year hurricane. Even though the elevated 300-year criteria is not officially required by BSEE, Williams has invested over $100M building and fortifying to this elevated criteria to mitigate storm damage and shutdown risk.

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.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
23,226,931

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure
The potential financial impact figure represents the total EBITDA impact of $23,226,931 to Williams from tropical storms/hurricanes in the Gulf of Mexico in 2020. This EBITDA impact was calculated using per day revenues from our offshore platforms multiplied by
the estimated number of days shut-in for each platform during each 2020 tropical storm/hurricane. It represents the financial impact to Williams based on asset ownership, as Williams has 60% ownership in its Discovery assets.

**Cost of response to risk**

105,000,000

**Description of response and explanation of cost calculation**

Cost of Response to Risk Calculation: The cost of response to risk represents the sum of several physical risk mitigation programs to reduce the impact of extreme weather events to Williams’ assets. $100,000,000 was for our Gulf of Mexico mitigation efforts and $5,000,000 was for our landslide mitigation. Breaking the landslide mitigation spend down further, approximately $800,000 was spent on higher risk landslides, $750,000 was spent on landslide monitoring, including LiDAR surveys, aerial patrols, and environmental inspections, and the rest was spent on landslide remediation.

(Situation) The Williams Integrated Management System (WIMS) serves as a platform for communicating and implementing the company’s polices, requirements, guidelines, procedures, specifications and other documents that are used to design, build, operate and maintain our assets.

(Task) Williams is enhancing existing weather response plans to continue to be able to quickly respond and mitigate impacts of future storms.

(Action) 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 invest in insurance coverage for potential property damage and business interruption.

(Result) Our business continuity planning and training includes potential impacts from future weather and climate events, and helps Williams appropriately respond when such challenges arise.

As part of our operating process, we calculate sufficient redundancy in our compression systems based on historic weather patterns in the different regions where we operate and maintenance activities. We are building more redundancy in the system, and continually enhancing how operations are built and operated based on historic weather patterns. We take into account the increasing number of severe weather events resulting from climate change.

Williams’ Chief Executive Officer co-chaired a National Petroleum Council study that examined the resiliency of natural gas and oil infrastructure in the event of a natural disaster. The report provides industry and government with advice to better prepare for significant disruptions to oil and natural gas supply chains caused by natural disasters such as hurricanes, earthquakes and floods.

**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.

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Opp1</th>
</tr>
</thead>
</table>

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

**Opportunity type**
- Markets

**Primary climate-related opportunity driver**
- Access to new markets

**Primary potential financial impact**
- Increased revenues through access to new and emerging markets

**Company-specific description**

Natural gas is a critical part of our nation’s clean-energy future and provides immediate, practical solutions to reducing emissions. 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 since it can quickly provide power to the national grid when renewable energy 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 change or greenhouse gas emission policy ambitions. This opportunity provides an avenue for Williams to access new markets beyond the operations we already have in 15 supply areas that provide natural gas services to more than 600 customers.

We remain committed to reducing greenhouse gas emissions from our operations while simultaneously helping our customers achieve their emissions reductions goals. Our U.S. customers are beginning to make commercial decisions based on the carbon intensity of gas molecules delivered. Williams has an opportunity to harness a competitive advantage by providing “greener gas” to customers along the entire value chain. Williams’ commercial teams are working closely with the environmental, safety
and operations groups to support customers’ ambitions around climate change and sustainability. For example, Williams delivers renewable natural gas by partnering with energy companies in Washington, Ohio and Texas to transport landfill-produced methane.

Time horizon
Short-term

Likelihood
Virtually certain

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
16,590,641

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure
The financial impact figure of $16,590,641 represents the 2020 Total Operating Revenue for the Gateway Expansion Project as reported in our annual FERC Form 2 filing in April 2021. Further details on the breakdown of this cost cannot be publicly disclosed at this time.

Cost to realize opportunity
76,262,229

Strategy to realize opportunity and explanation of cost calculation
Cost to Realize Opportunity Calculation: The cost to realize the opportunity of access to new markets through the Gateway Expansion Project was $76,262,229 USD capital cost, as reported to Federal Energy Regulatory Commission in the required cost report in a 6/30/20 filing. As outlined in that Gateway Expansion Project Detail of Actual Cost and Forecast as of May 2020, there was $143,975 cost for right of way, $60,000 cost for damages, $58,618 cost for surveys, $21,545,990 cost for materials, $42,524,611 cost for labor, $5,172,085 cost for engineering & inspection, $1,207,950 cost for overhead (A&G), $3,615,529 cost for AFUDC, $375,000 cost for contingencies, $431,457 cost for legal fees, and $1,127,014 cost for other services and costs.

(Situation) Natural gas continues to be the preferred fuel type for new power generation projects in the United States.
(Task) Williams evaluates opportunities to introduce our products to different markets in the United States. Williams has considered the financial opportunity of expanding access to natural gas and displace higher-emission fuels such as coal and heating oil while contributing to the growing clean energy economy.

(Action) In 2019, Williams completed the Gateway Expansion Project — approximately 11 months ahead of schedule — to meet growing demand for clean energy in New Jersey.

(Result) The Gateway Expansion Project provides the transportation services needed to meet the daily home heating, hot water and cooking needs of an estimated 280,000 homes. This is equivalent to removing approximately 590,000 metric tons per year of greenhouse gas emissions as a result of converting heating oil to natural gas.

Williams also continues to expand our capabilities to provide gas supplies for liquefied natural gas (LNG) exports. There is growing demand around the world for lower-emission energy that is accessible and affordable. Exported liquefied natural gas can also help reduce the need for coal-powered generation in other parts of the world, further reducing global greenhouse gas emissions. Williams is uniquely positioned to supply gas for LNG export along its Transco Pipeline system. LNG export volumes are projected to grow by an additional 13.4 billion cubic feet per day along Transco states through 2028.

Comment

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**Identifier**

Opp2

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

Downstream

**Opportunity type**

Energy source

**Primary climate-related opportunity driver**

Use of lower-emission sources of energy

**Primary potential financial impact**

Returns on investment in low-emission technology

**Company-specific description**

Williams has a variety of low-emissions solutions and technologies that we plan to implement in our own operations first to help achieve our emissions reductions targets and then may use to generate revenues in the future. Examples include:

Solar energy (short-term): In 2020, Williams established a team dedicated to developing
solar generation opportunities. The solar projects are intended to provide electricity to our existing natural gas compression and processing facilities. The 16 projects currently under commercial development across the Williams operational footprint would offset approximately 16% of the historical annual electric demand. We expect the first of the solar projects to begin commercial operation in mid-2023.

Hydrogen (long-term): Williams is currently evaluating the use of clean hydrogen produced from renewable power and electrolysis or methane reforming, coupled with carbon capture, to reduce greenhouse gas emissions within selected compression applications. We are also studying the impact of blending clean hydrogen with natural gas in our pipeline infrastructure. Williams will also be evaluating the potential of our processing facilities and compression assets, coupled with clean hydrogen sourced from renewable power and electrolysis, to generate synthetic natural gas and distribute to our customer base.

Carbon Capture, Utilization and Storage (long-term): Williams already utilizes CCUS in our operations. For example, at our Dilley Amine treatment facility in Texas, we capture an amine vent stream, which is primarily carbon dioxide, and inject it into an underground disposal well. Moving forward, Williams will continue to evaluate carbon capture and utilization or storage opportunities.

**Time horizon**
- Short-term

**Likelihood**
- Virtually certain

**Magnitude of impact**
- Low

**Are you able to provide a potential financial impact figure?**
- Yes, an estimated range

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**
35,000,000

**Potential financial impact figure – maximum (currency)**
40,000,000

**Explanation of financial impact figure**
As part of Williams path to achieving our absolute emissions reduction goal of 56% by 2030, we are in the process of developing 16 solar projects with a current total of about 350 MW, in-service by 2023. We have identified solar investment opportunities up to $385 million dollars with attractive returns. Williams expects to see a total 10%-15% realizable project return (5%-9% base project return, <1%-3% from renewable energy credits and 2%-3% in tax credit). 10%-15% of the total possible amount of $400 million
invested is how we arrived at the $35-$40 million potential financial impact. This assumes standard project return rates.

**Cost to realize opportunity**

385,000,000

**Strategy to realize opportunity and explanation of cost calculation**

Cost to Realize Opportunity Calculation: Up to $385 million is the amount of identified solar investment opportunities as part of Williams’ approximately $3 billion in capital toward reducing emissions through 2025. This cost includes total anticipated spend to procure, build, and install the solar farms.

In 2020, Williams created a renewables and emerging opportunities team to evaluate solar opportunities and to help inform Williams’ climate and corporate strategies.

(Situation) Williams has set a new short-term and long-term emissions reductions target for 2030 and 2050, respectively.

(Task) In order to meet these goals, Williams will leverage multiple solutions and technologies to reduce emissions. One of the key projects in this portfolio is our solar initiative.

(Anon) Williams has been identifying locations where solar power installations are both economical and can be primarily sited on company-owned land that is adjacent to existing facilities. Sites under consideration span Williams’ footprint, with initial sites identified in Alabama, Colorado, Georgia, Louisiana, New Jersey, North Carolina, Ohio, Pennsylvania and Virginia.

(Result) Natural gas-powered generation of electricity brings reliability to the U.S. electric power grid and allows for growth in renewable energy. Investments in intermittent solar power are made viable by the benefits of combined cycle back up on the grid and tax credits. The capacity of the farms will range from 1 megawatt to 40 megawatts depending on the energy needs of the Williams facility.

**Comment**

---

**Identifier**

Opp3

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

Direct operations

**Opportunity type**

Products and services

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

**Primary potential financial impact**  
Increased revenues resulting from increased demand for products and services

**Company-specific description**  
As more counties, states, cities and companies make commitments to reduce emissions and achieve carbon neutrality, Williams has an opportunity to support these entities looking for a pathway to meet ambitious targets. Many of these entities have already started switching to renewable fuels, increasing the demand for these products. To help meet this demand, we are identifying more biogenic and renewable sources of fuel to supply to our customers. For example, a commonly available renewable fuel is methane that is a by-product of the waste decomposition process that occurs in landfills and on dairy farms. Williams is well positioned to collect and process methane from landfills and agriculture for consumption. Our expertise in pipeline operations enables us to capitalize on this opportunity and help reduce methane emissions for our customers.

In 2020, Williams joined the Leadership Advisory Board on the Coalition for Renewable Natural Gas—a public policy advocacy and education platform for the renewable natural gas industry in North America. The coalition advocates for sustainable development, deployment and utilization of renewable natural gas so that present and future generations will have access to domestic, renewable, clean fuel and energy. The coalition’s sustainable methane abatement and recycling timeline initiative intends to capture and control methane from more than 40,000 organic waste sites in North America by 2050.

Renewable natural gas has negative greenhouse gas emissions when combusted as a fuel instead of directly vented to atmosphere, so we are always looking for new sources of renewable gas and new partnerships to meet growing demand for renewable fuels. Williams delivers renewable natural gas by partnering with renewable energy developers in Washington, Idaho, Ohio and Texas to transport methane emissions captured from landfills or dairy farms where the methane is a byproduct of the waste decomposition process. In the Northeast, partnering with Montauk Energy, Williams 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.

**Time horizon**  
Short-term

**Likelihood**  
Virtually certain

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

Yes, a single figure estimate

Potential financial impact figure (currency)

25,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The potential financial impact figure represents the estimated annual EBITDA impact from all RNG projects currently in the pipeline. This impact is based upon expected project returns of 15-20% IRR.

Cost to realize opportunity

200,000,000

Strategy to realize opportunity and explanation of cost calculation

Cost to Realize Opportunity Calculation: The cost to realize all RNG projects currently in the pipeline is $200,000,000 USD of capex over the next 3 years. This cost includes total anticipated spend to procure, build, and install all Williams portions of currently identified RNG facilities or connections.

(Situation) We continue to capitalize on opportunities to meet increasing customer demand for renewable resources.

(Task) In 2019, Williams’ updated our gas quality specifications to attract more renewable natural gas per year, and we are actively working to increase that number.

(Action) As part of this effort, we are evaluating opportunities to incrementally expand renewable gas produced from dairy and swine farms that don’t have infrastructure in place to capture gas by products. As part of the project, we changed tariff specifications to allow for more renewable natural gas on our Northwest Pipeline system.

(Result) The project will convert 150,000 gallons per day of dairy cow waste into 160,000 million British Thermal Units (MMBtu) of renewable gas each year. We anticipate the project will offset approximately 50,000 metric tons of greenhouse gas emissions each year. We have evaluated available sources of renewable gas in the United States, and our estimates show that there is enough available to offset emissions from our transmission pipeline operations, which represents one-third of our carbon footprint.

Comment
C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization’s strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Is your organization’s low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?

<table>
<thead>
<tr>
<th>Is your low-carbon transition plan a scheduled resolution item at AGMs?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, but we intend it to become a scheduled resolution item within the next two years</td>
<td></td>
</tr>
</tbody>
</table>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative

C3.2a

(C3.2a) Provide details of your organization’s use of climate-related scenario analysis.

<table>
<thead>
<tr>
<th>Climate-related scenarios and models applied</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEA Sustainable development scenario</td>
<td>As a part of our 2020 and 2021 annual corporate strategy development process we generated and evaluated four custom qualitative and quantitative scenarios with the IEA scenario as a fifth option for comparison to evaluate business impacts related to climate change. The custom scenarios include a “Stay-the-course”, low natural gas demand, high natural gas demand, and a “Green Transformation” scenario.</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>How the scenarios were identified with reference to inputs, assumptions, and analytical methods used: When developing the scenarios, Williams conducted an internal exercise to discuss our “global assumptions.” We identified four potential outcomes to base them on including a low and high gas demand perspective and a low and high degree of change from a political, regulatory, and social acceptance perspective. For inputs to the chosen scenarios, we leveraged our 3rd party consultants and available 3rd party scenarios including Wood Mackenzie, IHS, S&amp;P Global Platts and EIA projections to create four custom scenarios.</td>
</tr>
</tbody>
</table>

| Williams uses a variety of inputs including IEA STEPS, Wood Mackenzie, IHS, S&P Global Platts and EIA projections to create four custom scenarios. | |
Williams Companies, Inc. CDP Climate Change Questionnaire 2021 Wednesday, July 28, 2021

Platts, IEA SDS, IEA STEPS, and EIA. We reviewed the assumptions of each and made adjustments based on our own projections. For example, our “Green Transformation” scenario shows U.S. legislative actions prohibit new infrastructure development and the country pursues a rapid decarbonization plan but not quite as fast as a 2DS. The analytical method consisted of looking at supply and demand fundamentals on an annual basis and the potential impacts on our business strategy under the different scenarios.

Time horizons: The scenarios cover the next 20 years. It is important to our organization to cover our short and medium-term time horizons and a portion of our long-term time horizon to ensure we have a holistic view of the potential outcomes and that we are prepared to respond as they develop over time.

Area of organization: Williams uses the scenarios to consider how the potential outcomes may impact supply and demand balances, operations, and profitability.

Results: The resulting strategic direction and execution plans drive our investment decisions and risk mitigation plans. An example of a result from the scenario analysis that could potentially lead to investment decisions is the increased risk of emerging emissions reduction regulation under the Green Transformation Scenario. Examples of investment discussions may include solar power generation, CCUS, and hydrogen vs. a large investment on an expansion of the Transco pipeline or a combination of both. Where the scenarios suggest that we might not be resilient, we engage in robust discussions on what it will take to show that the business will continue to grow in a meaningful way that meets shareholder expectations.

(Situation) The results of the scenario analysis enable Williams to strategically evaluate project opportunities and make sure we are spending capital most efficiently.

(Task) As part of our growth strategy, we consider acquisition opportunities and engage in significant capital projects.

(Action) In the Northeast (NE), we use the price of $/ton to prioritize reduction efforts for the NE Methane Reduction Program. The price is used as an evaluation tool to drive low-carbon investments and prioritize spending for methane reduction projects. Approved reduction projects spanning 2019 and 2020 ranged from $2.60/ton to $295/ton.
(Result) Based on the results of this assessment, William was able to identify investments in equipment change outs from 2019-2020 that will reduce emissions by 1,890 tons of methane with an investment of $1.66 million USD, resulting in a cost of carbon of $35.10/ton CO2e.

We believe our company is well positioned for the future based on our strong growth plan and strategic competitive advantages such as our irreplaceable transmission assets. We evaluate the best place to deploy capital in order to maximize returns, while also taking into account environmental and reputational considerations, including those related to climate change.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

<table>
<thead>
<tr>
<th>Have climate-related risks and opportunities influenced your strategy in this area?</th>
<th>Description of influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products and services</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Natural gas is critical to addressing climate change, particularly when it comes to displacing or providing alternatives to more polluting fuels with solutions we can execute on today. Because the U.S. has an abundant supply of natural gas, harnessing this local, cleaner resource has helped reduce U.S. emissions. Williams plans to expand access to natural gas products, which are contributing to a clean energy economy. In addition to expanding natural gas, Williams is also looking into other low emission products and services including solar, hydrogen and renewable natural gas.

(Situation) Williams delivers renewable natural gas (RNG) by partnering with renewable energy developers in Washington, Idaho, Ohio and Texas to transport methane emissions captured from landfills or dairy farms where the methane is a byproduct of the waste decomposition process. Methane produced from the waste is a renewable fuel and is captured as biogas rather than being released directly into the atmosphere.
As part of our corporate strategy, we are also exploring opportunities to expand the supply of renewable natural gas products to our customers.

For example, in 2020, Williams completed a project in partnership with a dairy farm in Washington by building the necessary infrastructure to connect the biogas to our pipeline. As part of the project, we changed tariff specifications to allow for more renewable natural gas in our Northwest Pipeline system, while still ensuring safe transportation of the blended fuel.

The project will offset approximately 50,000 metric tons of greenhouse gas emissions annually — the equivalent of taking more than 10,800 cars off the road each year.

<table>
<thead>
<tr>
<th>Supply chain and/or value chain</th>
<th>Yes</th>
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</table>
| Williams has started considering carbon accounting across the value chain and identifying potential opportunities for emissions reduction. As we think about our downstream and producer customers, as they are trying to meet their own targets or demands of their own customers, we discuss how we provide additional services around emission monitoring and certifications, so that they fully understand the emissions of the product that they are buying.

Williams recognizes our impact spans beyond our own operations and has begun to expand our climate strategy to include our value chain.

We are beginning to partner with our customers and work together to achieve their climate and energy targets.

Williams has partnered with one of our key customers Cheniere to better understand their climate objectives.

Through this partnership, we are identifying the potential solutions that Williams can offer to help Cheniere meet their company’s energy goals.

| Time horizon: Medium term |
| Investment in R&D | Yes | Williams participates in and contributes to research initiatives to maintain our position as a thought leader, support technological innovation and develop best practices to reduce GHG emissions for the midstream sector. As a midstream industry leader, we believe we can successfully sustain and evolve our business as the world moves to a low-carbon future, while helping our customers and stakeholders meet their climate goals. For example, Williams is currently evaluating the use of clean hydrogen produced from renewable power and electrolysis or methane reforming, coupled with carbon capture, to reduce greenhouse gas emissions within selected compression applications. We are also studying the impact of blending clean hydrogen with natural gas in our pipeline infrastructure.  

(Situation) Hydrogen offers versatility as a method for energy storage, a source of fuel and even feedstock for various industrial- and energy-related processes.  

(Task) Williams is researching the potential of our processing facilities and compression assets, coupled with clean hydrogen sourced from renewable power and electrolysis, to generate synthetic natural gas and distribute to our customer base.  

(Action) Williams is a founding board member of the Clean Hydrogen Future Coalition, a newly launched coalition that supports the adoption of clean hydrogen in the United States. Together with fellow energy companies, labor unions, utilities, nongovernmental organizations, equipment suppliers and project developers, we will identify specific actions that the United States can take to create and scale the clean hydrogen economy.  

(Result) In 2020, Williams actively evaluated opportunities to collaborate with the U.S. Department of Energy and industry-funded pilot projects, and will participate in research with institutions such as the University of Oklahoma.  

Time horizon: Medium-term |

| Operations | Yes | Reducing GHG emissions from our operations is a key part of our strategy to minimize climate-related risks and realize opportunities. We support effective, voluntary programs to reduce emissions, such as conducting leak detection and |
repair (LDAR) assessments, installing electric motors on compressors and installing emission combustion devices. Williams is currently utilizing CCUS in our operations. At our Dilley Amine treatment facility in Texas, we capture an amine vent stream, which is primarily carbon dioxide, and inject it into an underground disposal well. We are also evaluating opportunities for using solar energy to power our compression stations, which will significantly reduce emissions associated with facility electricity use. In 2020, Williams’s facilities used 3.421 million MWh of electricity to power our operations, and we expect approximately similar usage in future years. The 15 projects currently under commercial development would offset approximately 16% of the historical annual electric demand. Solar projects are currently under development in Alabama, Colorado, New Jersey, Ohio, Pennsylvania and Virginia; the solar facilities will be located either on land currently owned or near our facilities.

Williams is a signatory of the Interstate Natural Gas Association of America’s Methane Emissions Commitment to implement methane reduction activities and perform leak surveys at all transmission and storage compressor stations by 2022. We use infrared cameras to quickly identify leaking equipment, which can represent a large source of emissions for our industry. We implemented a formalized LDAR program in 2020, which has enhanced how we mitigate unintended releases from equipment and measure associated success.

(Situation) Our natural gas focused strategy provides a practical and immediate path to reduce emissions, support the viability of renewable energy and grow a clean energy economy — with solutions we can execute on today.

(Task) Williams set out to develop new, more ambitious targets in 2020.

(Action) Last July, Williams presented the proposed targets and pathway to achieving them to the board for approval.

(Result) We set a near-term goal of 56% absolute reduction from 2005 levels in company-wide greenhouse gas emissions by 2030 on our path to net zero carbon emissions by 2050.
C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

<table>
<thead>
<tr>
<th>Financial planning elements that have been influenced</th>
<th>Description of influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital expenditures</td>
<td>Our strategy to address the risks and opportunities of climate change includes:</td>
</tr>
<tr>
<td></td>
<td>• Connecting the best supplies to the best markets to maximize transportation efficiency, improve cost-effectiveness and significantly reduce emissions;</td>
</tr>
<tr>
<td></td>
<td>• Operating our assets efficiently through preventive maintenance and equipment upgrades;</td>
</tr>
<tr>
<td></td>
<td>• Using data analytics to identify and drive strategic emissions reduction initiatives;</td>
</tr>
<tr>
<td></td>
<td>• Collaborating with peer companies through key industry initiatives and trade organization involvement to uncover and implement innovative best practices;</td>
</tr>
<tr>
<td></td>
<td>• Exploring and implementing renewable energy opportunities, including renewable natural gas and solar energy;</td>
</tr>
<tr>
<td></td>
<td>• Focusing on the use of existing rights of way to reduce deforestation; and</td>
</tr>
<tr>
<td></td>
<td>• Funding and participating in research related to emissions detection, quantification and reduction technologies.</td>
</tr>
</tbody>
</table>

Time horizons: We incorporate this short- and medium-term strategy into our financial planning.

(Situation) We take into account climate change risks and opportunities when evaluating capital expenditures.

(Task) Williams set out to identify additional opportunities to reduce greenhouse gas emissions across our Northeast gathering and processing operations.


(Result) Using the U.S. Environmental Protection Agency reported methane emissions for 2017, it was determined that the best
opportunities for methane reduction in the Northeast are equipment modification and replacement at existing facilities. This equipment includes, but is not limited to, pneumatic controller replacements, switching controllers to instrument air, replacement of gas-driven pneumatic pumps with electric pumps on dehydrator skids and installing more efficient burner units in dehydrator systems. Williams worked to prioritize opportunities with the highest potential to reduce emissions in a strategic and targeted manner to manage costs and maximize outcomes. Williams invested an estimated $475,000 in the initiative, resulting in a 26% reduction in predicted methane emissions for the year 2020 compared to 2017 — the equivalent of taking more than 14,300 cars off the road each year.

In addition, Williams submitted a proposal to the Federal Energy Regulatory Commission to execute a voluntary Transco Emissions Reduction Program. Transco is a 10,200-mile interstate natural gas transmission pipeline system, extending from South Texas to New York City. The Transco Pipeline system is a major provider of natural gas to the Northeastern and Southeastern states. Compressor stations help move gas along the Gulf Coast and to 12 Southeastern and Atlantic seaboard states, including supplying natural gas to major metropolitan areas in New York, New Jersey and Pennsylvania. While we have not yet reached agreement with shippers for the program, we are committed to engaging customers to come up with a solution that satisfies all interested stakeholders. If approved, the Transco Emissions Reduction Program will significantly reduce key air pollutants, particularly methane emitted from compressor stations along the Transco Pipeline system. We anticipate an 82% reduction in methane emissions from the compressor units.

**C3.4a**

**(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).**

We work to keep our costs competitive while reducing emissions. Our environmental specialists and operations managers help develop and implement initiatives to mitigate greenhouse gas emissions at our compressor stations, processing plants and storage facilities. Examples include conducting leak detection and repair assessments, installing electric motors on compressors and installing emission combustion devices. Our strategy for addressing the risks and opportunities of climate change includes:

- Connecting the best supplies to the best markets so that our products are traveling shorter distances, improving cost-effectiveness and significantly reducing our emissions;
- Operating our assets efficiently through proper maintenance and equipment upgrades;
- Using data to identify and drive the most common sense emissions reduction initiatives;
• Collaborating on best practices through voluntary programs and trade organizations;
• Exploring renewable energy opportunities, including renewable natural gas and solar energy; and
• Funding and participating in research related to emissions detection, quantification and reduction technologies.

Williams is committed to providing the infrastructure that safely delivers natural gas to reliably fuel the clean energy economy. Our natural gas focused strategy provides a practical and immediate path to reduce emissions, support the viability of renewable energy and grow a clean energy economy — with solutions we can execute on today. We have set a near-term goal of 56% absolute reduction from 2005 levels in company-wide greenhouse gas emissions by 2030 on our path to net zero carbon emissions by 2050. As a midstream industry leader, we believe we can successfully sustain and evolve our business as the world moves to a low carbon future, while also helping our customers meet state-level and company-driven climate goals. We will continue to invest in responsible environmental stewardship and reduce our carbon footprint while meeting the clean energy needs of our communities and delivering long-term value to our stakeholders. Achievement of our reduction goals will be dependent on many factors, including natural gas prices and the pace and extent of improvements in energy technology.

C4. Targets and performance

C4.1

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

Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2020

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Base year

2005
Covered emissions in base year (metric tons CO2e)
22,557,421

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2030

Targeted reduction from base year (%)
56

Covered emissions in target year (metric tons CO2e) [auto-calculated]
9,925,265.24

Covered emissions in reporting year (metric tons CO2e)
11,933,231

% of target achieved [auto-calculated]
84.1043302652

Target status in reporting year
New

Is this a science-based target?
No, and we do not anticipate setting one in the next 2 years

Target ambition

Please explain (including target coverage)
In 2020, Williams set a near-term goal of reducing absolute greenhouse gas emissions 56% from 2005 levels by 2030, putting the company on a positive trajectory to be net zero emissions by 2050. By setting a near-term goal for 2030, we plan to leverage our natural gas-focused strategy and technology that is available today to reduce emissions, scale renewables and build a clean energy economy. We will do so while looking forward and anticipating innovations for the future like hydrogen and carbon capture, utilization and storage (CCUS) that will ultimately contribute to our aspiration to be net zero by 2050.

To reach our 2030 target, Williams is utilizing technology readily available today such as pursuing methane emissions reduction opportunities through leak detection and repair (LDAR), work practice improvements and evaluating equipment upgrades on a site-specific basis. This near-term phase also includes employing emissions reduction strategies through research organizations and trade groups. Williams is also exploring the use of solar power generation to support the power needs of specific natural gas transmission and processing operations sites. Our 2030 target shows our commitment
to executing on opportunities in the here and now and holds our leadership accountable for near-term action and performance.

**Target reference number**
Abs 2

**Year target was set**
2020

**Target coverage**
Company-wide

**Scope(s) (or Scope 3 category)**
Scope 1+2 (location-based)

**Base year**
2005

**Covered emissions in base year (metric tons CO2e)**
22,557,421

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**
100

**Target year**
2050

**Targeted reduction from base year (%)**
100

**Covered emissions in target year (metric tons CO2e) [auto-calculated]**
0

**Covered emissions in reporting year (metric tons CO2e)**
11,933,231

**% of target achieved [auto-calculated]**
47.0984249485

**Target status in reporting year**
New

**Is this a science-based target?**
No, and we do not anticipate setting one in the next 2 years

**Target ambition**

**Please explain (including target coverage)**
In 2020, Williams set a near-term goal of reducing absolute greenhouse gas emissions 56% from 2005 levels by 2030, putting the company on a positive trajectory to be net zero emissions by 2050. By setting a near-term goal for 2030, we plan to leverage our natural gas-focused strategy and technology that is available today to reduce emissions, scale renewables and build a clean energy economy. We will do so while looking forward and anticipating innovations for the future like hydrogen and carbon capture, utilization and storage (CCUS) that will ultimately contribute to our aspiration to be net zero by 2050.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Net-zero target(s)

C4.2c

(C4.2c) Provide details of your net-zero target(s).

<table>
<thead>
<tr>
<th>Target reference number</th>
<th>NZ1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target coverage</td>
<td>Company-wide</td>
</tr>
<tr>
<td>Absolute/intensity emission target(s) linked to this net-zero target</td>
<td>Abs2</td>
</tr>
<tr>
<td>Target year for achieving net zero</td>
<td>2050</td>
</tr>
<tr>
<td>Is this a science-based target?</td>
<td>No, and we do not anticipate setting one in the next 2 years</td>
</tr>
<tr>
<td>Please explain (including target coverage)</td>
<td>In 2020, Williams set a near-term goal of reducing absolute greenhouse gas emissions 56% from 2005 levels by 2030, putting the company on a positive trajectory to be net zero emissions by 2050. By setting a near-term goal for 2030, we plan to leverage our natural gas-focused strategy and technology that is available today to reduce emissions, scale renewables and build a clean energy economy. We are also looking forward and anticipating innovations for the future like hydrogen and carbon capture, utilization and storage (CCUS) that will ultimately contribute to our aspiration to be net zero by 2050.</td>
</tr>
</tbody>
</table>

C-OG4.2d

(C-OG4.2d) Indicate which targets reported in C4.1a/b incorporate methane emissions, or if you do not have a methane-specific emissions reduction target for your oil and
gas activities, please explain why not and forecast how your methane emissions will change over the next five years.

Our absolute (Abs 1 and Abs 2) and net zero (NZ 1) targets apply to all Scope 1 and 2 (location-based) carbon emissions including methane. Methane makes up approximately 11% of our total Scope 1 and 2 emissions. As we seek to maximize natural gas resources to meet growing demand, we are working to reduce greenhouse gas emissions from our operations. To reach the 2030 target, Williams is pursuing common sense methane emissions reduction opportunities through leak detection and repair, work practice improvements, and evaluating equipment upgrades on a site-specific basis. Using this strategy, since 2012, we have reduced our reported methane emissions from natural gas processing plants and transmission compressor stations more than 58%. Over the same period, the natural gas throughput at these facilities increased by 27%.

This near-term phase also includes collaborating with peers and customers to uncover and implement innovative emissions reduction strategies through Williams-led initiatives, research organizations and trade groups. For example, In June 2019, Williams joined Our Nation’s Energy Future (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. Williams has committed to the ONE Future 2025 methane intensity goals for industry sectors of 0.08% for gathering and boosting, 0.11% for processing and 0.30% for transmission and storage. Williams continues to exceed anticipated progress toward the ONE Future greenhouse gas reduction goal. In addition, Williams will continue to support Colorado State University’s Methane Emissions Technology Evaluation Center and fund methane emissions reduction projects at Pipeline Research Council International.

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 a midstream industry leader, we believe we can successfully sustain and evolve our business as the world moves to a low carbon future, while also helping our customers meet their state level and company climate goals. We will continue to invest in responsible environmental stewardship and reduce our carbon footprint while meeting the clean energy needs of our communities and delivering long-term value to our stakeholders.

C4.3

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

Yes
C4.3a

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

<table>
<thead>
<tr>
<th>Number of initiatives</th>
<th>Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under investigation</td>
<td>58</td>
</tr>
<tr>
<td>To be implemented*</td>
<td>1</td>
</tr>
<tr>
<td>Implementation commenced*</td>
<td>0</td>
</tr>
<tr>
<td>Implemented*</td>
<td>4</td>
</tr>
<tr>
<td>Not to be implemented</td>
<td>0</td>
</tr>
</tbody>
</table>

C4.3b

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

<table>
<thead>
<tr>
<th>Initiative category &amp; Initiative type</th>
<th>Estimated annual CO2e savings (metric tonnes CO2e)</th>
<th>Scope(s)</th>
<th>Voluntary/Mandatory</th>
<th>Annual monetary savings (unit currency – as specified in C0.4)</th>
<th>Investment required (unit currency – as specified in C0.4)</th>
<th>Payback period</th>
<th>Estimated lifetime of the initiative</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy efficiency in production processes</td>
<td>50,936</td>
<td>Scope 1</td>
<td>Voluntary</td>
<td>2,000,000</td>
<td>1,300,000</td>
<td>&lt;1 year</td>
<td>Ongoing</td>
<td></td>
</tr>
</tbody>
</table>
In 2020, Williams transitioned our operations in southwest Wyoming to low-pressure gathering systems. This transition eliminated the need for several compressor stations and resulted in reduced greenhouse gas emissions and criteria pollutants. As a result of rigorous reliability evaluations, we decommissioned six compressor stations without impact to our customers. Williams spent $1.3 million to both decommission these stations and make the necessary pipeline modifications. The project will result in $2 million in savings annually and significant emissions reductions.

**Initiative category & Initiative type**
- Energy efficiency in production processes
- Machine/equipment replacement

**Estimated annual CO2e savings (metric tonnes CO2e)**
- 53,525

**Scope(s)**
- Scope 1

**Voluntary/Mandatory**
- Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**
- 110,950

**Investment required (unit currency – as specified in C0.4)**
- 242,500

**Payback period**
- 4-10 years

**Estimated lifetime of the initiative**
- Ongoing

**Comment**
Williams’ Marcellus natural gas gathering operations implemented a methane emissions reduction program in 2019 and 2020. This methane reduction program involved replacing six gas-driven pneumatic glycol pumps on dehydrator units with electric glycol pumps at three compressor stations, and replacing 26 high bleed pneumatic controllers with low bleed pneumatic controllers at 10 compressor / dehydrator stations. This project was an internal collaboration between operations, engineering, environmental, and project management with support from senior leadership.

**Initiative category & Initiative type**
- Energy efficiency in production processes
- Process optimization
Estimated annual CO2e savings (metric tonnes CO2e)
716,366

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
3,965,000

Investment required (unit currency – as specified in C0.4)
2,965,000

Payback period
<1 year

Estimated lifetime of the initiative
Ongoing

Comment
In 2020, Williams implemented recompression activities during planned maintenance outages for an estimated 1,570 MMSCF saved and 716,366 metric tons CO2e reduction in emissions that would have been vented. The cost was $2.695 million USD, and estimate cost savings using the value of gas recovered at $2.46/MMbtu (12 month average Henry Hub Price) was $3.965 million USD.

Initiative category & Initiative type
Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
16,024

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
12,897,532

Payback period
No payback
Estimated lifetime of the initiative
<1 year

Comment
In 2020 Williams installed emissions control technology at 8 stations in our Northeast Operations that combust methane emissions from glycol dehydration systems. The main driver for this project was to reduce VOC emissions, but additional routing from the flash tanks to combustion devices was install at 34 compressor stations to reduce methane emissions as well. The investment required figure represents the total cost for these projects, not just the cost to reduce methane emissions.

C4.3c

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

<table>
<thead>
<tr>
<th>Method</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance with regulatory requirements/standards</td>
<td>Diligent compliance with environmental and regulatory requirements is vital to managing our environmental impacts. The Williams Integrated Management System provides Williams-specific guidelines and policies for employees to follow, including compliance regulations and industry standards. Our Williams Integrated Management System includes requirements for monitoring greenhouse gas (GHG) emissions and complying with federal reporting requirements. We prepare and submit an annual GHG emissions inventory to the U.S. Environmental Protection Agency for our midstream gathering, natural gas processing and interstate transmission and storage operations. We also track and report Scope 1 and Scope 2 emissions data in accordance with the Greenhouse Gas Protocol. Scope 1 emissions are those that come from operating our assets. Scope 2 emissions include indirect sources, such as the purchase of electricity to power compressor stations. Accurately tracking GHG emissions with measurable data enables us to identify opportunities to reduce energy consumption and increase operational efficiency.</td>
</tr>
<tr>
<td>Dedicated budget for other emissions reduction activities</td>
<td>Blowdown emissions reduction standard: Williams is in the process of implementing a blowdown emissions reduction standard for transmission pipeline assets that requires recompression or other reduction measures to be evaluated for all blowdown events. This standard requires an 80% reduction in greenhouse gas emissions for all non-emergency pipeline blowdowns that would vent more than 1 MMSCF (before any volume reduction). We will fully integrate this requirement into the Williams Integrated Management System in late</td>
</tr>
</tbody>
</table>
2021.

Solar projects: 2020, Williams established a team dedicated to developing solar generation opportunities across the company asset footprint. The solar projects are intended to provide electricity to our existing natural gas compression and processing facilities. We expect the first of the solar projects to begin commercial operation in mid-2023.

CCUS: To achieve net zero emissions by mid-century, society will need to leverage carbon capture, utilization and storage (CCUS) capabilities for hard-to-abate industrial applications. Williams already utilizes CCUS in our operations. For example, at our Dilley Amine treatment facility in Texas, we capture an amine vent stream, which is primarily carbon dioxide, and inject it into an underground disposal well. Not only does this make the gas safe for handling, but it also reduces the overall greenhouse gas emissions from that natural gas by reducing its carbon dioxide content. At our Parachute Creek gas plant in Colorado, we capture carbon dioxide through amine treatment of the gas stream and provide that as a feedstock for industrial chemical production. Moving forward, Williams will continue to evaluate carbon dioxide-rich amine vent streams for capture and utilization or storage opportunities to reduce greenhouse gas emissions.

<table>
<thead>
<tr>
<th>Partnering with governments on technology development</th>
<th>Williams has been a member of the U.S. EPA Natural Gas STAR program since its inception in 1993. Natural Gas STAR is a voluntary partnership that encourages oil and natural gas companies to adopt cost-effective technologies and practices that improve operational efficiency and reduce methane emissions. From 1993–2020, Williams avoided almost 5 million metric tons of CO2e by implementing industry best practices and partnering with the Natural Gas STAR program. Also, Williams is a founding board member of the Clean Hydrogen Future Coalition, a newly launched coalition that supports the adoption of clean hydrogen in the United States. Together with fellow energy companies, labor unions, utilities, nongovernmental organizations, equipment suppliers and project developers, we will identify specific actions that the United States can take to create and scale the clean hydrogen economy. Williams is actively evaluating opportunities to collaborate with the U.S. Department of Energy and industry-funded pilot projects, and will participate in research with institutions such as the University of Oklahoma.</th>
</tr>
</thead>
</table>
C4.5

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

Yes

C4.5a

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

Level of aggregation

Product

Description of product/Group of products

We recognize the important role natural gas can play in helping to address environmental climate change when it comes to displacing other higher-emission fuels with solutions we can execute on today. According to the U.S. Energy Information Administration, between 2005 and 2019, greenhouse gas emissions from the electric sector declined 33%. The majority of this total was attributed to natural gas replacing coal since gas emits half as much carbon dioxide as coal and 30% less than oil per unit of energy delivered.

Natural gas is a flexible, lower-emission fuel compared to other hydrocarbons such as coal. In addition, Williams is exploring renewable energy opportunities, including renewable natural gas (RNG). Currently, Williams delivers RNG by partnering with energy companies in Washington, Idaho, Ohio, and Texas to transport methane emissions captured from landfills or dairy farms where the methane is a byproduct of the waste decomposition process. Methane produced from the waste is a renewable fuel because it is captured as biogas rather than being released directly into the atmosphere.

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

Low-carbon product and avoided emissions

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

Other, please specify

EIA US Energy Information Administration

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

95

Comment

Approximately 95% of Williams' operations on an energy basis includes natural gas, NGLs, and RNG. The other 5% includes Rocky Mountain Midstream (RMM) oil gathering and offshore oil gathering.
C-OG4.6

(C-OG4.6) Describe your organization’s efforts to reduce methane emissions from your activities.

Methane made up an estimated 11% of Williams’ assets’ Scope 1 and 2 greenhouse gas emissions profile in 2020, and we pay particular attention to reducing methane emissions. We employ several mechanisms to continuously minimize methane emissions from our interstate natural gas transmission and storage operations that focus on reductions from pipeline blowdowns, pneumatic controllers, compressor packing and leaking components. Williams’ operating areas are actively purchasing and installing equipment to reduce methane emissions where opportunities are identified. Examples include replacing higher bleeding pneumatic controllers with low bleed controllers, and replacing gas pneumatic pumps with non-emitting electric pumps on dehydrator systems.

Williams has been a member of the U.S. Environmental Protection Agency Natural Gas Star program since 1993, participating in a voluntary partnership that encourages oil and natural gas companies to adopt cost-effective technologies and practices that improve operational efficiency and reduce methane emissions. From 1993–2020, Williams avoided almost 5 million metric tons of CO2e by implementing industry best practices and partnering with the Natural Gas STAR program. We successfully implemented and reported pressure-reduction using recompression to lower gas line pressure before pipeline maintenance. When using recompression technology, Williams is able to reduce pipeline blowdown greenhouse gas emissions by 86% on average. These measures help reduce methane emissions and make more natural gas available for sale.

Williams participates in trade organizations to collaboratively identify and promote best industry management practices for reducing methane emissions. These organizations include the Interstate Natural Gas Association of America (INGAA), the American Petroleum Institute (API), Our Nation's Energy Future Coalition, Inc.(ONE Future), and the GPA Midstream Association. Williams is also a signatory of the INGAA’s Methane Emissions Commitment which includes performing leak surveys at all transmission and storage compressor stations by 2022, and implementing methane reduction activities, where feasible.

C-OG4.7

(C-OG4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?

Yes

C-OG4.7a

(C-OG4.7a) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities,
including predominant frequency of inspections, estimates of assets covered, and methodologies employed.

We operate more than 30,000 miles of pipeline across 24 U.S. states and offshore in the Gulf of Mexico. Williams regularly completes integrity assessments of pipelines and repairs of identified defects. We monitor pipelines for flow, pressure, temperature and other factors through our dedicated control centers, which include automated system response to potential leak conditions. Technologies such as infrared, acoustic and lasers are also used to facilitate leak detection. We train pipeline control specialists to recognize abnormal conditions that could be the result of a pipeline leak and how to respond to potential leaks.

Williams uses infrared cameras to identify and repair leaking equipment. We conduct quarterly, semi-annual or annual LDAR survey on Williams’ compressor stations and facilities using an optical gas imaging (OGI) camera. Leak survey and repair data from 2020 indicates that Williams’ LDAR surveys are an effective work practice in significantly reducing emissions of fugitive methane to the environment.

Williams recently started using a single software platform, Leak Tracker Pro™ (LTP), to maintain leak records from OGI surveys conducted in the Williams gathering and boosting and transmission sectors. Use of LTP allows for improved surveys, record keeping and a more in-depth look at trends. We used the LTP results in 2020 to more accurately identify leaking equipment components such as valves, connectors, flanges, pumps and open-ended lines. We will analyze this information to reduce the number of leaks at Williams’ facilities going forward, which will also help us achieve our emissions reduction targets. Williams is in the process of developing a Williams Integrated Management System requirement with associated roles and responsibilities for LDAR. Once finalized, we will use these documents to clearly communicate the roles and responsibilities of Williams’ employees to promote an efficient and effective LDAR program across the enterprise.

(Situation) Williams is a signatory of Interstate Natural Gas Association of America’s Methane Emissions Commitment.

(Task) The pledge is to implement methane reduction activities and perform leak surveys at all transmission and storage compressor stations by 2022.

(Action) In 2020, we implemented a formalized leak detection and repair program to enhance how we mitigate unintended releases from transmission and storage equipment and measure associated success. The Williams Voluntary Leak Detection and Repair Program (WiLDAR) is the voluntary standard applicable to Williams’ compressor stations.

(Result) As a result of this program, Williams has been able to successfully drive reductions, which will be quantified in 2022.

Williams has also sponsored and participated in five Colorado State University and U.S. Department of Energy methane emissions studies, and has attended workshops on next generation leak detection and repair strategies. Williams continues to support Colorado State
University’s Methane Emissions Technology Evaluation Center and fund greenhouse gas emissions reduction projects at Pipeline Research Council International.

**C-OG4.8**

(C-OG4.8) If flaring is relevant to your oil and gas production activities, describe your organization’s efforts to reduce flaring, including any flaring reduction targets.

We do not have production activities, therefore flaring from our midstream facilities is not relevant. However, Williams works to help reduce flaring from upstream producers. For example, Williams filed a lawsuit in Travis County, Texas in 2019 challenging the Railroad Commission’s decision to allow Exco Operating Co. LP to burn off gas at 130 oil wells in South Texas. Despite the fact that Williams operates a gathering system that connects to those wells and could have transported that gas to market, the Railroad Commission authorized the flaring because it wasn’t profitable for Exco to sell the gas. Williams believes the recent pattern of approving every flaring permit contradicts a long-standing tradition at the agency of frequently prohibiting flaring. Flaring permits have increased by 44% over the past decade — from 158 approved in fiscal 2009 to nearly 7,000 approved in the latest fiscal year, resulting in increased greenhouse gas emissions. Limiting flaring permits regardless of economic conditions will help prevent unnecessary flaring emissions.

**C5. Emissions methodology**

**C5.1**

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

**Scope 1**

<table>
<thead>
<tr>
<th><strong>Base year start</strong></th>
<th>January 1, 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base year end</strong></td>
<td>December 31, 2005</td>
</tr>
<tr>
<td><strong>Base year emissions (metric tons CO2e)</strong></td>
<td>20,913,943</td>
</tr>
</tbody>
</table>

**Comment**

2005 is the baseline year for the new absolute reduction target and net zero target.

**Scope 2 (location-based)**

<table>
<thead>
<tr>
<th><strong>Base year start</strong></th>
<th>January 1, 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base year end</strong></td>
<td>December 31, 2005</td>
</tr>
</tbody>
</table>
Base year emissions (metric tons CO2e)
1,643,478

Comment
2005 is the baseline year for the new absolute reduction target and net zero target.

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.2

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

- US EPA Mandatory Greenhouse Gas Reporting Rule
- Other, please specify
- Methane Emissions Estimation Protocol ONE Future

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

To estimate methane emission intensity figures for our business activities, Williams uses the ONE Future Methane Emissions Estimation Protocol. All ONE Future companies are intended to use this Methane Emissions Estimation Protocol to quantify and report their methane emissions intensity. This protocol also defines the means by which participating companies will estimate their average emissions intensity and compare it to segment targets and the national goal of 1% emission intensity. To minimize reporting burdens and provide consistent and transparent reporting, this protocol relies in large part on existing U.S. Environmental Protection Agency estimation and reporting mechanisms — principally the U.S. Environmental Protection Agency’s Greenhouse Gas Reporting Program and Inventory of U.S. Greenhouse Gas Emissions and Sinks.
C6. Emissions data

C6.1

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

<table>
<thead>
<tr>
<th>Reporting year</th>
<th>Gross global Scope 1 emissions (metric tons CO2e)</th>
<th>10,434,780</th>
</tr>
</thead>
</table>

Comment

Gross direct (Scope 1) greenhouse gas emissions in millions of metric tons of CO2-equivalent. The consolidation approach is operational control and includes CO2, CH4, and N2O. Emissions are based on calendar years. Emissions from facilities that are applicable under the U.S. EPA Greenhouse Gas Reporting Program (GHGRP) are calculated using the GHGRP methodology. Emissions from facilities that are not applicable under GHGRP due to reporting thresholds are calculated referencing GHGRP and ONE Future protocols. Methane emissions from sources that aren’t applicable under the GHGRP are calculated using ONE Future protocol. Data excludes emissions from offshore assets, corporate office buildings and company vehicles. Global Warming Potential rates are 25 for CH4 and 298 for N2O. No Williams facilities are covered by emissions limiting regulations. Williams does not produce biogenic emissions from its direct operations. Williams does not produce hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride or nitrogen trifluoride emissions.

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 no operations where we are able to access electricity supplier emission factors or residual emissions factors and 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
1,503,232

Comment
Gross location-based energy indirect (Scope 2) greenhouse gas emissions in millions of metric tons of CO2-equivalent. The consolidation approach is operational control. 2020 emissions were calculated using U.S. EPA Power Profiler Emissions Tool 2019, using emission factors from U.S. EPA eGRID2019 multiplied by kWh energy use for all assets that Williams operates. Corporate building energy use is excluded.

C6.4

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

C6.4a

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

Source
Company vehicles

Relevance of Scope 1 emissions from this source
Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source
Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)
Emissions are not relevant

Explain why this source is excluded
Williams has a fleet of company vehicles that generate approximately 10,496.5 metric tons of greenhouse gas emissions annually using the U.S. Environmental Protection Agency March 2020 emission factor of .335 kg CO2 per mile for a typical passenger vehicle, .000009 kg CH4 per mile for a typical passenger vehicle, .000008 kg N2O per mile for a typical passenger vehicle, and using the total miles driven by company vehicles. These emissions are estimated to represent less than 1% of our overall Scope 1 and 2 emissions footprint and are considered de minimis.
Source
Office buildings

Relevance of Scope 1 emissions from this source
Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source
Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)
Emissions are not relevant

Explain why this source is excluded
Williams has four leased or owned corporate offices that are not included in our Scope 1 and 2 emissions footprint. Total energy purchased energy emissions are approximately 7,386 metric tons CO2e annually. These emissions are estimated to represent less than 1% of our overall Scope 1 and 2 emissions footprint and are considered de minimis.

Source
Offshore

Relevance of Scope 1 emissions from this source
Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source
Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)
Emissions are not relevant

Explain why this source is excluded
Williams has a few offshore few gathering platforms that are generating fugitive emissions. These emissions are estimated to represent less than 1% of our overall Scope 1 and 2 emissions footprint and are considered de minimis.

C6.5

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

Purchased goods and services

Evaluation status
Not relevant, explanation provided

Please explain
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 greenhouse gas emissions.

**Capital goods**

**Evaluation status**
Not evaluated

**Please explain**
We have not evaluated our Scope 3 greenhouse gas emissions and thus are unable to evaluate if this will be a significant source of Scope 3 greenhouse gas emissions.

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

**Evaluation status**
Relevant, not yet calculated

**Please explain**
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 fuel-and-energy related activities (not included in Scope 1 or 2) will be a significant source of Scope 3 greenhouse gas emissions.

**Upstream transportation and distribution**

**Evaluation status**
Not relevant, explanation provided

**Please explain**
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 estimate these emissions to be zero (0).

**Waste generated in operations**

**Evaluation status**
Not relevant, explanation provided

**Please explain**
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 greenhouse gas emissions.

**Business travel**

**Evaluation status**
Not relevant, calculated
Metric tonnes CO2e
1,398

Emissions calculation methodology
Passenger vehicle emissions were calculated by using the EPA passenger vehicles/year method. An emission factor of 4.6 metric tons CO2e/vehicle/year was used. Using the distance-based method calculation for airline miles, the emission factor used was .217 kg CO2e/mi per passenger from carbonfund.org. Hotel stays were calculated at a rate of 15.13 kg CO2e/room day, also sourced from carbonfund.org.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
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 greenhouse gas emissions. Business travel emissions for 2020 were less than 1,397.98 metric tons of CO2e total. Passenger vehicle emissions were calculated by using the EPA passenger vehicles/year method. An emission factor of 4.6 metric tons CO2e/vehicle/year was used. Using the distance-based method calculation for airline miles, the emission factor used was .217 kg CO2e/mi per passenger from carbonfund.org. Hotel stays were calculated at a rate of 15.13 kg CO2e/room day, also sourced from carbonfund.org.

Employee commuting

Evaluation status
Not relevant, calculated

Metric tonnes CO2e
95

Emissions calculation methodology
U.S. Environmental Protection Agency March 2020 emission factors (.335 kg CO2 per mile for a typical passenger vehicle, .000009 kg CH4 per mile for a typical passenger vehicle, .000008 kg N2O per mile for a typical passenger vehicle) and assuming a 30 mile one way commute for each of Williams’ 4,705 full-time employees as of June 2021.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
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 greenhouse gas emissions.
emissions. Employee commuting is less than 95.3 metric tons CO2e per year, using the U.S. Environmental Protection Agency March 2020 emission factor of .335 kg CO2 per mile for a typical passenger vehicle, .000009 kg CH4 per mile for a typical passenger vehicle, .000008 kg N2O per mile for a typical passenger vehicle, and assuming a 30 mile one way commute for each of Williams’ 4,705 full-time employees as of June 2021.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Please explain
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 greenhouse gas emissions.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Please explain
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 transportation and distribution. Therefore, we do not anticipate this being a material source of Scope 3 greenhouse gas emissions.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Please explain
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. Therefore, we do not anticipate this being a material source of Scope 3 greenhouse gas emissions.

Use of sold products

Evaluation status
Relevant, calculated

Metric tonnes CO2e
19,275,187
Emissions calculation methodology

Emissions reported according to Subpart NN – Suppliers of Natural Gas & Natural Gas Liquids, part of the EPA Greenhouse Gas Reporting Program (GHGRP)

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

0

Please explain

We have operations across the natural gas value chain, including gathering, processing, interstate transportation and storage of natural gas and natural gas liquids, so the use of sold products is a significant source of Scope 3 greenhouse gas emissions. These emissions are reported according to Subpart NN – Suppliers of Natural Gas & Natural Gas Liquids.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

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 greenhouse gas emissions and we estimate the emissions to be zero (0).

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

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 greenhouse gas emissions.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

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 greenhouse gas emissions and we estimate the emissions to be zero (0).
Investments

Evaluation status
Not evaluated

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

Other (upstream)

Evaluation status
Not relevant, explanation provided

Please explain
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 greenhouse gas emissions and we estimate the emissions to be zero (0).

Other (downstream)

Evaluation status
Not relevant, explanation provided

Please explain
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 greenhouse gas emissions and we estimate the emissions to be zero (0).

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
0.001546
Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
11,938,012

Metric denominator
unit total revenue

Metric denominator: Unit total
7,719,000,000

Scope 2 figure used
Location-based

% change from previous year
0.26

Direction of change
Increased

Reason for change
Williams saw a reduction in Scope 1 and 2 emissions from 2019 due to reduction efforts, changes in output and less construction activity in 2020. While there was a reduction in Scope 1 and 2 emissions, there was also a reduction in revenue resulting in a small increase for the revenue-based intensity figure.

C-OG6.12

(C-OG6.12) Provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category.

Unit of hydrocarbon category (denominator)
Million cubic feet of natural gas

Metric tons CO2e from hydrocarbon category per unit specified
0.99

% change from previous year
7

Direction of change
Decreased

Reason for change
The decrease is a result of the following:
1. Less transmission and storage blowdowns due to less construction and maintenance projects
2. Emissions reduction activity that reduced methane emissions in gathering and boosting by routing more glycol dehydrator emissions to thermal oxidizers or vapor
combustion units and installing lower emitting electric glycol pumps
3. Reduced miles of cathodically unprotected pipelines
4. Selling parts of our gathering and boosting pipeline

Comment
Due to more accurate reporting methodology, Williams has adjusted last year’s intensity figure of 1.04 to 1.06 to provide a more accurate comparison to this year’s response.

C-OG6.13

(C-OG6.13) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.

Oil and gas business division
Midstream

Estimated total methane emitted expressed as % of natural gas production or throughput at given division
0.49

Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division
0.02

Comment
Our answer of 0.49% was calculated as follows: Methane emissions in metric tons CH4 divided by gathering plus transmission throughput in million standard cubic feet x 100.
Our answer of 0.02% was calculated as follows: Methane emissions in MMBtu divided by gathering and transmission gas throughput in MMBtu plus processing and fractionating liquids throughput in MMBtu x 100. Methane molecules may be processed or moved twice, double counting is not accounted for in this metric. Please see ONE Future segment intensities.

C7. Emissions breakdowns

C7.1

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

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

<table>
<thead>
<tr>
<th>Greenhouse gas</th>
<th>Scope 1 emissions (metric tons of CO2e)</th>
<th>GWP Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>9,139,658</td>
<td>IPCC Fourth Assessment Report (AR4 - 100 year)</td>
</tr>
<tr>
<td>CH4</td>
<td>1,290,464</td>
<td>IPCC Fourth Assessment Report (AR4 - 100 year)</td>
</tr>
<tr>
<td>N2O</td>
<td>4,658</td>
<td>IPCC Fourth Assessment Report (AR4 - 100 year)</td>
</tr>
</tbody>
</table>

C-OG7.1b

(C-OG7.1b) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.

**Emissions category**
- Combustion (excluding flaring)

**Value chain**
- Midstream

**Product**
- Gas

**Gross Scope 1 CO2 emissions (metric tons CO2)**
- 8,056,541

**Gross Scope 1 methane emissions (metric tons CH4)**
- 2,316

**Total gross Scope 1 emissions (metric tons CO2e)**
- 8,118,864

**Comment**
- Emissions are calculated using the U.S. Environmental Protection Agency Greenhouse Gas Reporting Program methodology.

**Emissions category**
- Flaring

**Value chain**
## Midstream

### Product
- Gas

### Gross Scope 1 CO2 emissions (metric tons CO2)
- 261,095

### Gross Scope 1 methane emissions (metric tons CH4)
- 1,198

### Total gross Scope 1 emissions (metric tons CO2e)
- 291,181

**Comment**
Emissions are calculated using the U.S. Environmental Protection Agency Greenhouse Gas Reporting Program methodology.

### Emissions category
- Venting

### Value chain
- Midstream

### Product
- Gas

### Gross Scope 1 CO2 emissions (metric tons CO2)
- 5,938

### Gross Scope 1 methane emissions (metric tons CH4)
- 36,091

### Total gross Scope 1 emissions (metric tons CO2e)
- 908,227

**Comment**
Emissions are calculated using the U.S. Environmental Protection Agency Greenhouse Gas Reporting Program methodology.

### Emissions category
- Fugitives

### Value chain
- Midstream

### Product
- Gas
Gross Scope 1 CO2 emissions (metric tons CO2)  
301

Gross Scope 1 methane emissions (metric tons CH4)  
8,493

Total gross Scope 1 emissions (metric tons CO2e)  
212,621

Comment  
Emissions are calculated using the U.S. Environmental Protection Agency Greenhouse Gas Reporting Program methodology.

Emissions category  
Process (feedstock) emissions

Value chain  
Midstream

Product  
Gas

Gross Scope 1 CO2 emissions (metric tons CO2)  
815,784

Gross Scope 1 methane emissions (metric tons CH4)  
3,521

Total gross Scope 1 emissions (metric tons CO2e)  
903,888

Comment  
Emissions are calculated using the U.S. Environmental Protection Agency Greenhouse Gas Reporting Program methodology.

C7.2

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

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>10,434,780</td>
</tr>
</tbody>
</table>

C7.3

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

By activity
C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gathering and Boosting</td>
<td>4,473,522</td>
</tr>
<tr>
<td>Processing</td>
<td>3,028,322</td>
</tr>
<tr>
<td>Transmission and Storage</td>
<td>2,932,936</td>
</tr>
</tbody>
</table>

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization’s total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Gross Scope 1 emissions, metric tons CO2e</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and gas production activities (upstream)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Oil and gas production activities (midstream)</td>
<td>10,434,780</td>
<td>All Scope 1 emissions are midstream</td>
</tr>
<tr>
<td>Oil and gas production activities (downstream)</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

C7.5

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

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Scope 2, location-based (metric tons CO2e)</th>
<th>Scope 2, market-based (metric tons CO2e)</th>
<th>Purchased and consumed electricity, heat, steam or cooling (MWh)</th>
<th>Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>1,503,232</td>
<td>3,421,151</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C7.6

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

By activity
C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Scope 2, location-based (metric tons CO2e)</th>
<th>Scope 2, market-based (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power for Gathering, Transmission, and Processing Assets</td>
<td>1,503,232</td>
<td></td>
</tr>
</tbody>
</table>

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization’s total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Scope 2, location-based, metric tons CO2e</th>
<th>Scope 2, market-based (if applicable), metric tons CO2e</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and gas production activities (upstream)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil and gas production activities (midstream)</td>
<td>1,503,232</td>
<td></td>
<td>All Scope 2 emissions are midstream.</td>
</tr>
<tr>
<td>Oil and gas production activities (downstream)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C7.9

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

Decreased

C7.9a

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

<table>
<thead>
<tr>
<th>Change in emissions (metric tons CO2e)</th>
<th>Direction of change</th>
<th>Emissions value (percentage)</th>
<th>Please explain calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in renewable</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>category</td>
<td>amount</td>
<td>change</td>
<td>number</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------</td>
<td>---------</td>
<td>--------</td>
</tr>
<tr>
<td>energy consumption</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other emissions reduction activities</td>
<td>120,485</td>
<td>Decreased</td>
<td>1</td>
</tr>
<tr>
<td>Divestment</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Acquisitions</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Mergers</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Change in output</td>
<td>407,758</td>
<td>Decreased</td>
<td>3</td>
</tr>
<tr>
<td>Change in methodology</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Change in boundary</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Change in physical operating conditions</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Unidentified</td>
<td>73,954</td>
<td>Increased</td>
<td>1</td>
</tr>
</tbody>
</table>
Other 275,711 Decreased 2 Williams had significantly reduced construction and maintenance activity in 2020 due to COVID, which resulted in a significant reduction in Subpart W Blowdown Vent Stack emissions. In 2019, Williams had 566,329 mt CO2e in blowdown vent stack emissions. In 2020, Williams had 290,168 mt CO2e in blowdown vent stack emissions. In 2019 Williams had 12.67 million mt CO2e Scope 1 and 2 emissions. This is a difference of 275,711 mt CO2e. 

\[(275,711/12,670,000)\times100 = 2\%

C7.9b

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

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy? 
More than 10% but less than or equal to 15%

C8.2

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

<table>
<thead>
<tr>
<th>Activity</th>
<th>Indicate whether your organization undertook this energy-related activity in the reporting year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel (excluding feedstocks)</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of purchased or acquired heat</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of purchased or acquired steam</td>
<td>No</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Heating value</th>
<th>MWh from renewable sources</th>
<th>MWh from non-renewable sources</th>
<th>Total (renewable and non-renewable) MWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel (excluding feedstock)</td>
<td>HHV (higher heating value)</td>
<td>0</td>
<td>43,672,590</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
<td>410,628</td>
<td>3,010,522</td>
<td>3,421,150</td>
</tr>
<tr>
<td>Total energy consumption</td>
<td>410,628</td>
<td>46,683,112</td>
<td>47,093,740</td>
</tr>
</tbody>
</table>

**C8.2b**

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

<table>
<thead>
<tr>
<th>Indicate whether your organization undertakes this fuel application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel for the generation of electricity</td>
</tr>
<tr>
<td>Consumption of fuel for the generation of heat</td>
</tr>
<tr>
<td>Consumption of fuel for the generation of steam</td>
</tr>
<tr>
<td>Consumption of fuel for the generation of cooling</td>
</tr>
<tr>
<td>Consumption of fuel for co-generation or tri-generation</td>
</tr>
</tbody>
</table>

**C8.2c**

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

Heating value
   HHV (higher heating value)

Total fuel MWh consumed by the organization
   43,672,590

MWh fuel consumed for self-generation of electricity
   0

MWh fuel consumed for self-generation of heat
   0

Emission factor
   53.06

Unit
   kg CO2 per million Btu

Emissions factor source
   US CFR 40 Part 98 Subpart C Appendix

Comment
   Emissions are calculated per the U.S. Environmental Protection Agency Greenhouse Gas Reporting Program methodology.

Fuels (excluding feedstocks)
   Diesel

Heating value
   HHV (higher heating value)

Total fuel MWh consumed by the organization
   854

MWh fuel consumed for self-generation of electricity
   854

MWh fuel consumed for self-generation of heat
   0

Emission factor
   73.96

Unit
   kg CO2 per million Btu

Emissions factor source
US CFR 40 Part 98 Subpart C Appendix

Comment
Emissions are calculated per the U.S. Environmental Protection Agency Greenhouse Gas Reporting Program methodology.

C9. Additional metrics

C9.1

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


<table>
<thead>
<tr>
<th>Investment in low-carbon R&amp;D</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Williams participates in Pipeline Research Council, which has a focus area of research on emissions reduction from natural gas pipeline operations. We also participated in U.S. Department of Energy’s research efforts to reduce methane emissions, and partnered with Colorado State University to advance methane detection technology. Williams is also a member of the National Petroleum Council, which has funded research and development on carbon capture and storage technology.

C-CO9.6a/C-EU9.6a/C-OG9.6a

(C-CO9.6a/C-EU9.6a/C-OG9.6a) Provide details of your organization’s investments in low-carbon R&D for your sector activities over the last three years.

<table>
<thead>
<tr>
<th>Technology area</th>
<th>Stage of development in the reporting year</th>
<th>Average % of total R&amp;D investment over the last 3 years</th>
<th>R&amp;D investment figure in the reporting year (optional)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methane detection and reduction</td>
<td>Applied research and development</td>
<td>0%</td>
<td>0</td>
<td>Williams is donating technical expertise and equipment to various research organizations to further enhance methane detection technology.</td>
</tr>
</tbody>
</table>
detection technologies. Williams is a partner of METEC, a methane detection pilot facility that is led by Colorado State University, and allows new technology providers to test their equipment in a controlled, realistic, environment. We also participate in optical gas imaging (OGI) field performance studies to assess the efficacy of OGI in upstream oil and gas applications. The purpose of the field work was to provide a quantitative baseline which can be used to demonstrate equivalency of new leak detection methods with regulatory-approved OGI screening methods. As part of this effort, three camera operators participated in two days of leak simulation and data collection.

| Other energy efficiency measures in the oil and gas value chain | Applied research and development | ≤20% | 4,000 | Williams is a member of The Gas Machinery Research Council (GMRC). GMRC focuses research on improving the reliability of compression and compressor efficiency. Research related to reduced maintenance has the potential to yield less blowdowns and therefore less methane emissions. |
| Infrastructure | Applied research and development | 81-100% | 213,230 | Williams is a partner of Pipeline Research Council International (PRCI), funding research projects and providing technical expertise to support research and development in pipeline integrity and mechanical reliability. |
C10. Verification

C10.1

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

<table>
<thead>
<tr>
<th>Scope</th>
<th>Verification/assurance status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1</td>
<td>Third-party verification or assurance process in place</td>
</tr>
<tr>
<td>Scope 2 (location-based or market-based)</td>
<td>Third-party verification or assurance process in place</td>
</tr>
<tr>
<td>Scope 3</td>
<td>No emissions data provided</td>
</tr>
</tbody>
</table>

C10.1a

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

- **Verification or assurance cycle in place**
  - Annual process

- **Status in the current reporting year**
  - Complete

- **Type of verification or assurance**
  - Limited assurance

- **Attach the statement**
  - ERM CVS Assurance Statement for Williams 2021 CDP Climate Change Questionnaire_FINAL.pdf

- **Page/ section reference**
  - Page 1

- **Relevant standard**
  - ISAE3000

- **Proportion of reported emissions verified (%)**
  - 100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.
Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement

ERM CVS Assurance Statement for Williams 2021 CDP Climate Change Questionnaire_FINAL.pdf

Page/ section reference
Page 1

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
No, we do not verify any other climate-related information reported in our CDP disclosure

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?
No
C11.3

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

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price
- Navigate GHG regulations
- Change internal behavior
- Drive energy efficiency
- Drive low-carbon investment
- Stress test investments
- Identify and seize low-carbon opportunities

GHG Scope
- Scope 1

Application
Williams’ has begun piloting an internal carbon price to evaluate projects. The carbon price has been used to evaluate some of our new larger projects or emissions reduction initiatives. It has not been institutionalized as part of a management system yet.

Actual price(s) used (Currency /metric ton)
- 10

Variance of price(s) used
Williams only has operations in the United States so our current approach is to use uniform pricing. We are using a price of $10/ton, which considers external carbon market values and the previous US EPA’s domestic social cost of carbon and general industry discussion.

Type of internal carbon price
- Shadow price

Impact & implication
Our goal in implementing an internal carbon price is to make sure we are evaluating projects in a way that is efficient for both emissions reduction and executing capital. The price was used for evaluating vent gas recovery units for compressor blowdowns at new stations. It also was incorporated into our new transmission pipeline blowdown emissions reduction standard in 2021 as part of our economic evaluation of different types of emissions reduction methods, but we are evaluating beginning that process in 2021. More internal discussions are going on this year do decide how/when we will implement this more broadly within the organization. Where applied, the internal carbon
price is currently used to evaluate Scope 1 emissions, but we may consider expanding this to other emissions sources as the initiative evolves.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our suppliers
Yes, other partners in the value chain

C12.1a

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

<table>
<thead>
<tr>
<th>Type of engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance &amp; onboarding</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Details of engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code of conduct featuring climate change KPIs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% of suppliers by number</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% total procurement spend (direct and indirect)</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% of supplier-related Scope 3 emissions as reported in C6.5</th>
</tr>
</thead>
</table>

Rationale for the coverage of your engagement

Williams worked with more than 4,245 suppliers across the United States in 2020 to procure the materials, goods and services needed to support our daily operations. To manage suppliers, Williams uses a supplier relationship management process to segment suppliers into categories and develop relationships with suppliers that share our commitment to operational excellence and uphold our Core Values.

Through this process, we identify Tier 1 suppliers with the highest spending, strategic value and potential risks. Currently, Tier 1 suppliers are required to acknowledge and sign our new Code of Conduct for Suppliers and Contractors. A core value of our Code of Conduct is protecting the environment, including our goal of reducing greenhouse gas emissions. The code states, “Suppliers and contractors will comply with all applicable environmental laws and regulations. Suppliers will strive to reduce environmental impact in their operations through efforts such as minimizing greenhouse gas emissions and waste and using resources efficiently.” Currently, we have a total of 309 Tier 1 suppliers that accounts for 80% of our total procurement spend.
**Impact of engagement, including measures of success**

We see our suppliers as partners in helping Williams’ achieve climate targets. Our measure of success is our engagement rate by total supplier spend, currently 80%. Williams’ goal is full implementation of supplier acknowledgement by the end of 2021. Williams holds suppliers to high standards on both product quality and services, and routinely evaluates our Tier 1 suppliers to confirm compliance with company policies, performance expectations and regulatory requirements. Suppliers not meeting our expectations may be subject to contractual remedies, up to and including termination. In 2020, Williams also incorporated questions as part of the overall audit program to include an assessment of supplier performance on social and environmental topics. Below is an example of how transportation costs and associated emissions have affected our bid evaluation process.

(Situation) For example, Williams’ supply chain team is responsible for procuring equipment packages for large natural gas infrastructure projects executed by Williams’ engineering services team.

(Task) During the bid evaluation process, the supply chain team considers several important factors for awarding a decision. One of the important factors is the proximity between the supplier and the installation site, which minimizes transportation costs, reduces associated transportation risks and results in lower emissions.

(Action) Spending with the skid manufacturing suppliers typically goes through a total cost analysis, which includes the cost of transportation to the final project site.

(Result) Transportation costs alone may not determine the final award decision, but it is considered as a factor in the bid selection process.

**Comment**

**C12.1d**

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

One of Williams’ main tools for engaging stakeholder on climate change is the company’s annual Sustainability Report, which provides detailed information regarding our initiatives to reduce greenhouse gas emissions as well as relevant performance metrics. We also provide public information about greenhouse emission reduction practices through voluntary disclosures like the CDP climate change questionnaire. We engage with communities, nongovernmental organizations, industry associations and government entities to conduct collaborative research, listen to different perspectives and share our position related to climate change. Williams maintains ongoing partnerships with industry groups and trade associations, which collectively engage member oil and gas companies in climate-related discussions and identify opportunities to collaborate on strategies and industry commitments. Examples include the Interstate Natural Gas Association of America, GPA Midstream and the American
Petroleum Institute. We are also implementing mechanisms for evaluating increased transparency on climate change management in our supply chain.

(Situation): We take stakeholder feedback seriously and work to develop appropriate responses. Listening to stakeholder feedback is critical to building and maintaining collaborative relationships. Williams regularly interacts with stakeholders using a variety of mechanisms, including in-person and virtual meetings, social media, open houses and community events.

(Task): In recent years, some of Williams’ investors have asked for more insight into our sustainability practices, including those related to climate change. In 2019, we engaged several of our largest active and passive shareholders, representing an estimated 15% of shares outstanding, to request feedback on our ESG reporting.

(Action): With the feedback in mind, Williams is working to increase transparency and reporting related to our sustainability practices and performance, including climate change.

(Result): We worked to further align our 2020 Sustainability Report with recommendations set by the Task Force on Climate-related Financial Disclosures and Sustainability Accounting Standards Board. In addition, Williams is a member of Energy Infrastructure Council (EIC), and our chief executive officer serves on the board and on the board’s ESG Working Group. Through this partnership, Williams co-chaired an initiative with EIC to launch the first-ever midstream company ESG reporting template. This important development will allow all midstream energy infrastructure companies to coalesce and present the sustainability metrics that matter most to investors in a transparent and comparable way. We look forward to widespread adoption by both the midstream industry and investment community.

C12.3

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

- Direct engagement with policy makers
- Trade associations
- Funding research organizations

C12.3a

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

<table>
<thead>
<tr>
<th>Focus of legislation</th>
<th>Corporate position</th>
<th>Details of engagement</th>
<th>Proposed legislative solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation of methane emissions</td>
<td>Support</td>
<td>Williams participated in a series of studies championed by the Environmental Defense Fund to better understand methane emissions from the entire U.S. natural gas supply chain. In</td>
<td>The results of these studies provide greater insight into actual methane emission sources and magnitudes, and highlight the need for updated emission factors standards for the U.S. Environmental Protection</td>
</tr>
</tbody>
</table>
addition to providing funding for both studies, we also provided requested facility data, hosted measurement crews at our facilities and actively participated on the project’s technical and steering committees.

Agency greenhouse gas emissions inventory. These new datasets can be used by industry and governing agencies when assessing reduction targets and potential reduction strategies.

Other, please specify

Regulation of carbon emissions

Support

The National Petroleum Council’s energy infrastructure study, co-chaired by the Chief Executive Officer of Williams Companies, calls on Congress to clarify the National Environmental Protection Act permit process and develop a national climate change policy. In response to the study, bipartisan action was taken by Congress and the Executive Branch, including mechanisms to expedite the permitting process for large infrastructure projects. These actions represent positive steps in the effective regulation of carbon emissions.

The Council made several recommendations to overcome challenges associated with reducing carbon emissions, including clarifying greenhouse gas assessments under the National Environmental Policy Act and enacting a comprehensive national policy to reduce greenhouse gas emissions. Notably, one of the key findings of the study was that even in low-carbon, high-renewable demand scenarios, natural gas will continue to play a leading role in meeting our nation’s energy demand through 2040.

C12.3b

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

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

<table>
<thead>
<tr>
<th>Trade association</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate Natural Gas Association of America (INGAA)</td>
</tr>
</tbody>
</table>

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association’s position
Protecting and improving the environment is a top priority for natural gas and pipeline companies. INGAA’s members deliver clean, abundant and affordable natural gas.
throughout North America. INGAA has announced a set of climate change commitments that outline in detail its mission to help address climate change, including working together as an industry towards reaching net-zero greenhouse gas (GHG) emissions from natural gas transmission and storage by 2050. INGAA’s climate commitments include member companies reducing individual GHG emissions from natural gas transmission and storage operations; providing consistent and transparent data collection, measurement, and reporting of GHG emissions from operations; and reducing the carbon intensity of natural gas infrastructure by adopting and investing in more innovative technologies.

More information on the climate change statement is available through INGAA: https://www.ingaa.org/File.aspx?id=38523&v=65536c8

**How have you influenced, or are you attempting to influence their position?**
Williams’ Senior Vice President of Corporate Strategic Development is an INGAA Board of Director.

---

**Trade association**
Business Roundtable

**Is your position on climate change consistent with theirs?**
Consistent

**Please explain the trade association’s position**
Business Roundtable believes corporations should lead by example, support sound public policies and drive the innovation needed to address climate change. Business Roundtable states that the United States should adopt a more comprehensive, coordinated and market-based approach to reduce emissions that is pursued in a manner that ensures environmental effectiveness while fostering innovation, maintaining U.S. competitiveness, maximizing compliance flexibility and minimizing costs to business and society. Business Roundtable supports the following policy actions to address the climate challenge: invest in technology, drive energy efficiency, develop and deploy resiliency and adaptation measures, and invest in energy infrastructure and improve permitting processes.

**How have you influenced, or are you attempting to influence their position?**
Williams’ CEO is a member of Business Roundtable.

---

**Trade association**
American Petroleum Institute (API)

**Is your position on climate change consistent with theirs?**
Consistent
Please explain the trade association’s position

API and its members are committed to delivering solutions that reduce the risks of climate change while meeting society’s growing energy demand. We support global action that drives greenhouse gas emission reductions and economic development. The oil and gas industry is part of the global solution, and plays a vital role in developing and deploying technologies and products that continue to reduce greenhouse gas emissions while advancing human and economic prosperity by extending the benefits of modern life.

API leads by providing platforms for industry action to:
• Reduce greenhouse gas emissions through industry-led solutions, and
• Actively work on policies that address the risks of climate change while meeting the global need for affordable, reliable and sustainable energy.

More information is available through the API website:

How have you influenced, or are you attempting to influence their position?

In 2019, Williams joined the API Environmental Partnership, which provides a forum for participants to share information, analyze best practices and research technological breakthroughs aimed at responsibly developing natural gas and oil resources. Williams participated in the working group that expanded the commitments to be inclusive of midstream, transmission and storage operations, expanding opportunities for enhanced reduction opportunities and collaboration. Williams actively engages at the API Midstream Committee and Natural Gas Subcommittee level, encouraging API to adopt and advocate for policies that support natural gas use to improve air and water quality, support continued deployment of renewables, and grow the domestic clean energy economy and advance domestic energy independence. Our President and Chief Executive Officer is on the Board for API, and was involved in discussions with API regarding the findings in the National Petroleum Council leadership role.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

Yes

C12.3f

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

Williams’ growth depends on continued support for energy infrastructure expansion in North America. Government policies at the federal, state and local level affect our existing operations and future project plans. Williams works with government stakeholders and regulatory agencies on topics related to Williams’ operations and on energy policies. Williams works with
government stakeholders and regulatory agencies at the federal, state and local levels on policies that impact our current and future operations. Our government affairs and outreach team educates policymakers and other government stakeholders on our projects and policy positions.

We have proven experience working with regulators, policymakers and stakeholders to minimize risk in order to build the critical infrastructure needed to fuel our clean energy economy. Our dialogue with shareholders allows us to address issues, share relevant information and enhance alignment with shareholder expectations. In 2020, members of our executive management team attended 17 virtual investor conferences, 30 conference calls, four virtual question and answer sessions and four virtual non-deal roadshows. During such meetings, management may discuss Williams' strategy, operations, ESG efforts, financial performance as well as broader energy industry topics and trends. The investor relations team at Williams also shares these same key messages with the financial community throughout the year via phone calls, video calls and email correspondence. In 2020, the investor relations team facilitated 17 ESG-focused investor conference calls, 15 of which included a member of the executive management team.

C12.4

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

<table>
<thead>
<tr>
<th>Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>In mainstream reports</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete</td>
</tr>
</tbody>
</table>

Attach the document

!WMB-Annual-Report-2020_FINAL.pdf

<table>
<thead>
<tr>
<th>Page/Section reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDF pages 3, 26, 31, 36-37, 42-44</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Content elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy</td>
</tr>
<tr>
<td>Risks &amp; opportunities</td>
</tr>
<tr>
<td>Emissions figures</td>
</tr>
<tr>
<td>Emission targets</td>
</tr>
</tbody>
</table>

Comment
C15. 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.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

<table>
<thead>
<tr>
<th>Job title</th>
<th>Corresponding job category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Executive Officer (CEO)</td>
<td>Chief Executive Officer (CEO)</td>
</tr>
</tbody>
</table>

Submit your response

In which language are you submitting your response?
Please confirm how your response should be handled by CDP

<table>
<thead>
<tr>
<th>I am submitting my response</th>
<th>I am submitting to</th>
<th>Public or Non-Public Submission</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Investors</td>
<td>Public</td>
</tr>
</tbody>
</table>

Please confirm below

I have read and accept the applicable Terms