

## Welcome to your CDP Climate Change Questionnaire 2022

## **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 pipeline infrastructure nationwide — including Transco, the largest volume and fastest growing pipeline in the United States — 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.

Our CDP responses are not filed with the U.S. Securities and Exchange Commission (SEC) and accordingly are not prepared in accordance with the SEC's rules and regulations applicable to filed reports or documents. We note that the information in the CDP response may contain or incorporate by reference statements that do not directly or exclusively relate to historical facts. To the extent the SEC were to adopt rules, regulations, or otherwise take a position that our CDP responses are subject to liability under Federal securities laws, we note that such statements are "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements relate to anticipated financial performance, management's plans and objectives for future operations, business prospects, outcome of regulatory proceedings, market conditions and other matters. We make these forward-looking statements in reliance on the safe harbor protections provided under the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, included herein that address activities, events or developments that we expect, believe or anticipate will exist or may occur in the future, are forward-looking statements.

Forward-looking statements can be identified by various forms of words such as "anticipates," "believes," "seeks," "could," "may," "should," "continues," "estimates," "expects," "forecasts," "intends," "might," "goals," "objectives," "targets," "planned," "potential," "projects," "scheduled," "will," "assumes," "guidance," "outlook," "in-service date" or other similar expressions. These forward-looking statements are based on management's beliefs and assumptions and on information currently available to management. Certain important factors that could cause actual results to differ, possibly materially, from expectations or estimates reflected in such forward-looking statements can be found in the "Risk Factors" and "Forward-Looking Statements" sections included in Williams's Annual Report on Form 10-K filed with the SEC on February 28, 2022, 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 questionnaire or announce publicly the result of any revisions to any of the forward-looking statements to reflect future events or developments.

### C0.2

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

Start date

End date

Indicate if you are providing emissions data for past reporting years



Reporting year January 1, 2021 December 31, 2021 No

## C0.3

(C0.3) Select the countries/areas in which you operate. 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



## **C0.8**

#### (C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, another unique identifier, please specify	WMB
NYSE ticker	
Yes, an ISIN code	US9694571004

## **C1. Governance**

## C1.1

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

Yes

## C1.1a

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

Position of individual(s)	Please explain
Board-level committee	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 Board's Governance and Sustainability
	Committee has primary oversight on climate change matters because the Governance and Sustainability Committee oversees the company's ESG performance and disclosure.



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 and recommending improvements to our Business Code of Conduct and Supplier Code of Conduct, which include sections on minimizing environmental impacts. The committee regularly reports to the full Board of Directors on relevant topics for further discussion. As an example, in 2021, the Board approved a rebrand and expansion of the Williams' New Energy Ventures group focused on advancing innovative technologies, markets and business models. Near term projects include energy efficiency by reducing leaks with prevention, detection and repair, work practice improvements and equipment upgrades. Future innovation focuses include Carbon Capture, Utilization and Storage, hydrogen development and renewable power generation and transmission, both on- and off-shore. New Energy Ventures collaborates with talent across Williams, along with external partners and customers, to evaluate and implement projects that deliver environmental and financial gains.

## C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding business plans Setting performance objectives	The Governance and Sustainability Committee has primary responsibility of climate change matters as it oversees the company's ESG performance. The Corporate Governance Scorecard is reviewed at each of the four regularly scheduled sub-committee meetings. The Scorecard includes monthly ISS QualityScore ratings which includes in the Environment pillar, subcomponents (i) Carbon and Climate, (ii) Natural Resources, and (iii) Waste and Toxicity. The Committee discusses the perceived business drivers of these scores. Climate change risk is considered in many areas of our corporate strategy process. One of which is our Strategic Risk Assessment process (SRA) which identifies the top 10 risks that



Monitoring implementation and	could impact Williams' strategic direction. Climate change has the potential to impact several
performance of objectives	risks within our current risk taxonomy used in the SRA. Williams also uses a qualitative
Monitoring and overseeing	climate-related scenario analysis in our corporate strategy process to identify and test
progress against goals and	plausible scenarios of Williams' future. The board and executive officer team consider a
targets for addressing climate-	range of internally developed scenarios consisting of various market fundamentals and
related issues	assumed related financial outcomes. We compared the developed scenarios to publicly
	available data, including data from third-party consultants, on 1.5- and 2.0-degree Celsius
	scenarios. In response, the board and management team evaluated strategic opportunities
	and investments considering the results of the scenario analysis.
	The corporate strategy process is fundamental as the BOD provides guidance and oversight
	into long term strategic decisions. These strategic decisions guide investment decisions and
	risk mitigation plans that ultimately influence business plans and performance targets. In
	2021, the board discussed the New Energy Ventures (NEV) implementation framework,
	program development and business development opportunities. NEV investment decisions
	take into consideration emissions intensity for our company, customers and partners.
	Another example of guidance from the corporate strategy process and its climate
	considerations is the use of solar powered facilities across various existing processing plants
	and pipeline systems. Use of solar powered facilities will also be a key consideration for
	upcoming capital projects.
	To promote strong environmental governance across the enterprise, Williams has
	incorporated a new target into our all-employee Annual Incentive Program (AIP) to reduce
	methane emissions over a three-year average, starting in 2022. Alongside this target, we will
	continue to reduce our loss of primary containment (LOPC) events, including the unplanned
	or uncontrolled release of methane. Achieving these influences short-term annual incentives
	for all employees eligible for our AIP. We weighted the LOPC goal at 5% of our 2021 AIP for
	all employees, including the C-suite. The methane reduction goal also has a 5% weighting
	for our 2022 AIP.



## C1.1d

#### (C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate- related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	Several members of our Board have competence on climate-related issues. The primary criteria used to assess competence in respect of climate-related issues is experience in addressing climate-related matters. Our process for identifying climate-related experience is a combination of reviewing Director and Officer Questionnaires, that each director is required to complete annually, and a director self-identification based on a review of the skills matrix included in our proxy statement. Note that although we could reasonably take the position that, given our directors are regularly presented with climate-related matters as part of our natural gas focused company's business and operations, including significant environmental regulatory matters, all 12 of our directors have such experience. However, we take a more conservative approach as follows: Our Board skills matrix includes a skill for Energy Transition defined as experience in sustainability or transitioning to alternative non-hydrocarbon energy sources. Such skills matrix also includes a skill for Environmental defined as provides experience in regulatory schemes and best practices to enhance our environmental stewardship. Our skills matrix identifies six directors having the Energy Transition skill and six directors having the Environmental skill. Note that there is overlap among directors regarding the two skills. Examples of relevant experience indicating the existence of such skills include, but are not limited to, experience in non-hydrocarbon-based energy sources like wind and nuclear energy (either in a regulatory or business capacity), implementation of greenhouse gas emission reduction targets and strategies (including for methane), oversight of environmental reclamation projects including land restoration, etc.

## C1.2

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

Name of the position(s) and/or	Responsibility	Frequency of reporting to the board on climate-
committee(s)		related issues



Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Other, please specify Environmental, Social and Governance Director	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Chief Operating Officer (COO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

## 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 Executive Officer (CEO) of Williams has ultimate responsibility for the oversight and management of all company risks and therefore is the highest management-level position with responsibility for climate-related risks and opportunities. The CEO reports directly to the board of directors.

Williams' Chief Operating Officer (COO) sits on the Executive Officer Team (EOT) and reports directly to the Chief Executive Officer (CEO). 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 to 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 has an ESG Director. Because these responsibilities tie directly to our investor relations, the ESG Director reports to Williams' Vice President of Investor Relations & ESG. The Vice President of Investor Relations & ESG reports to the SVP & Chief Financial Officer 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 raising the visibility of Williams' ESG capabilities. The ESG Director collaborates with several groups within the organization,



including Communications & Corporate Social Responsibility, Government Affairs & Public Outreach, Corporate Strategic Development, and the Corporate Secretary, to promote effective delivery of ESG-related activities and communicate results to investors and key stakeholders. Climate issues area also monitored by the Environmental Specialists, our legal team, the Air Programs Group, and increasingly the Operations groups with our methane Annual Incentive Program.

## C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

## 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).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Corporate executive team	Monetary reward	Emissions reduction target	There are two emissions reduction targets that drive internal performance for the Corporate Executive Team, 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 Corporate Executive Team's monetary incentive includes performance against Williams' annual target to reduce reportable releases by 10%. Williams also established a loss of primary containment (LOPC) target that includes the unplanned or



			uncontrolled release of methane. We weighted the LOPC goal at 5% of our 2021 Annual Incentive Program for all employees. The LOPC goal will be continued in 2022 and again weighted at 5%. In addition to the LOPC goal, Williams also established a new methane reduction goal in 2022 to reduce 2022 methane emissions by 5% compared to the 3-year (2019-2021) baseline average. The methane reduction goal also has a 5% weighting for our 2022 AIP. Achieving these targets influences short-term, annual incentives for all employees eligible for our Annual Incentive Program.
All employees	Monetary reward	Emissions reduction target	Williams also established a loss of primary containment (LOPC) target that includes the unplanned or uncontrolled release of methane. We weighted the LOPC goal at 5% of our 2021 Annual Incentive Program for all employees. The LOPC goal will be continued in 2022 and again weighted at 5%. In addition to the LOPC goal, Williams also established a new methane reduction goal in 2022 to reduce 2022 methane emissions by 5% compared to the 3-year (2019-2021) baseline average. The methane reduction goal also has a 5% weighting for our 2022 AIP. Achieving these targets influences short-term, annual incentives for all employees eligible for our Annual Incentive Program.

## **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?

	From (years)	To (years)	Comment
Short-term	0	3	



Medium-term	3	7	
Long-term	7	100	

## C2.1b

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

We identify top risks to achieving our strategy though an annual, strategic risk assessment that aligns with our long-term corporate strategy process. This systematic process is facilitated by our corporate strategy team and incorporates management and risk process owners throughout the organization to identify risks. As a part of this process, an annual survey is conducted to assess the impact and likelihood of risks that could influence Williams' strategic objectives. The survey includes a qualitative and quantitative assessment and evaluates climate topics including policy and legal, reputational, and other strategic and operational risks.

Risks are rated on impact and likelihood of the residual risk. Our Survey participants are asked to first consider the potential impact of risks and rate them on impact scales which define five levels of potential impact from incidental to extreme. Depending on the risk, the impact could be a financial impact, operational or safety impact, human capital impact or reputational impact, or a combination. An incidental financial impact would be an annual financial loss of up to \$10 million dollars and an extreme impact would be an annual financial loss of \$300 million or more. Similarly, an incidental score for a reputational impact would be that Williams would receive local media attention that could be remedied quickly, and an extreme impact would result in international or long-term negative media coverage. If there is potential for a combination of impacts, participants are asked to select the highest impact score. After determining the impact, participants are then asked to score the likelihood of the risk at the selected impact level. Participants can choose from five levels of likelihood ratings ranging from rare (up to 15% chance) to almost certain (greater than 85% chance). The impact and likelihood scores are then added together to get the total risk score. Lastly, the survey assesses the effectiveness of existing risk controls.

The combined risk impact and likelihood scores provide a measurable, consistent and quantitative rationale for selecting top risks. Risks with the highest total risk score are then considered in Williams top risk analysis. Through historical process Williams has been able to identify a natural break in risk scores clearly isolating risks that have the highest potential to impact our strategy (i.e. Top Risks) therefore conceivably having the potential to produce substantive financial and strategic risk. An Executive Officer Team (EOT) is assigned accountability for each Top Risk. Top Risks are also shared with the BOD as a part of the annual strategy process.



### C2.2

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

#### Value chain stage(s) covered

Direct operations

#### **Risk management process**

Integrated into multi-disciplinary company-wide risk management process

#### **Frequency of assessment**

Annually

#### Time horizon(s) covered

Short-term Medium-term

#### **Description of process**

Climate risk can manifest itself in a variety of ways and it influences Williams view of our strategic, operational and compliance and reporting risks. Williams executive team conducts an annual strategy session with the Board in which it discusses strategic risks and opportunities, including climate related risks and opportunities, which have been identified and assessed as being relevant to our business. To identify the top risks to our strategy, our strategy team conducts an annual survey to assess risks that could impact Williams' strategic objectives. Survey participants include all VP and above and other key risk owners. All risks are assigned to one of 30 risk categories that are consolidated into four classifications: Strategic, Operational, Compliance and Reporting. In the survey, Williams uses risk measurement scales to quantify scoring of the likelihood and impact of risks. The survey focuses on identifying and determining 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 and strategic impact on our business.

In regard to climate related risk, we are particularly focused on impacts to and from our direct operations, which may occur in the short and



medium term. Acute physical risks are included as part of our evaluation of catastrophic loss and business interruptions during our annual strategic risk assessment. In 2021, four (Shareholder/Stakeholder expectations, Financial Markets/Cost of Capital, Reputation, and Financial Reporting and Disclosure risks) of our 30 risks definitions in our risk taxonomy, were amended to clarify inclusion of ESG risks, including environmental and/or climate risks. We realize that shifts in public, customer or regulatory opinions towards products produced with lower emissions affect market potential, access to capital and that increased support for lower emissions could result in changes to regulations and reporting requirements all of which can present climate related risk to Williams.

Beyond identifying and managing climate related risks in our existing operations, in efforts to respond to climate-related risks and opportunities and to meet emissions reduction commitments, we developed a strategic framework to guide the execution of new energy opportunities. Before we make an investment in new energy opportunities we consider if our investment will meet the following guiding principles: (i) achieve carbon reductions, (ii) create economic value, (iii) target opportunities where our capabilities provide a competitive advantage, and (iv) result in an outcome that is scalable.

#### 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 2021, Williams commissioned a study by Wilkes University to provide a Pennsylvania-specific narrative summarizing the economic and local benefits for the Regional Energy Access Expansion project.



(Result) The results of the Wilkes University study helped Williams better inform local stakeholders about project 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?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	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. This risk type is always included in our risk assessment process, as our operational practices must abide by all current regulation. 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. Example: For example, the Oregon Environmental Quality Commission adopted three new rules in 2021 to reduce GHG emissions from harmful diesel engine exhaust, large stationary sources and transportation fuels. In Colorado, regulations passed in late 2021 that aim to reduce methane emissions, while also providing the oil and gas sector with more flexibility through an emissions intensity program. Despite the flexibility of the recent Colorado regulations, we recognize that these regulations may expose us to significant costs, liabilities and expenditures above our expectations if we do not factor them into our current operational risk management strategy.
Emerging regulation	Relevant, sometimes included	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. Emerging regulations are sometimes, but not always, considered in our operational climate risk assessments because the rules may be proposed but not yet adopted and finalized. One example of a risk of this type included in our climate-related risk assessment is how climate change regulations and the costs associated with the regulation of greenhouse gas emissions have the potential to affect existing or new projects.



		Regulatory actions by the U.S. Environmental Protection Agency or the passage of new climate change laws or regulations such as carbon pricing or taxing 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 pay 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.
Technology	Relevant, sometimes included	As a part of our annual strategic risk assessment, we consider competitor risks which would include the potential for existing or new competitors to utilize new technology. As well, we evaluate the likelihood of technology disrupting our business as part of our qualitative scenario analysis process. One such scenario is "Green Transformation," which evaluates the associated business impacts of fossil fuels being phased out more quickly than our other estimates anticipate due to increasing cost- competitiveness of renewable energy technologies such as solar power. 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. To further identify areas of opportunity associated with Climate change, Williams established a dedicated team as part of New Energy Ventures to explore commercializing innovative technologies, markets and business models. We are looking to play a role in Carbon Capture, Utilization and Storage (CCUS), hydrogen, and renewable energy to name a few technologies. In 2021, Williams advanced 10 solar projects to the permitting phase and will continue further development of these projects in the future. These projects across the Williams operational footprint will offset approximately 5% of our historical annual electricity demand.
Legal	Relevant, sometimes included	Williams regularly undertakes legal monitoring and oversight of climate-related issues. For instance, our Legal team monitors proposed and final rules and amendments to environmental laws and administrative regulations. Examples include the SEC's recently proposed rules on climate disclosures (for which we submitted a comment letter) and FERC and other reporting requirements relating to environmental matters.



		Business interruptions from potential lawsuits are considered as a component of several different strategic and/or 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. 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.
Market	Relevant, sometimes included	We evaluate business risks associated with changing market conditions and customers shifting to renewable sources of energy in several of our strategic risk groupings (e.g., Customer expectation risk and Macro Economic conditions, and Legislative and regulatory) as a part of our strategic risk assessment process. 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. We consider such risks in developing our qualitative scenario analysis process.
		Example: Our qualitative "The Green Transformation" scenario evaluates the associated business impacts of fossil fuels being phased out quicker, due to market desires, than our other scenarios anticipate. This scenario included the assumption, 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.
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.



		Williams prides itself on its strong reputation and always strives to maintain its excellent reputation with all stakeholders, including shareholders, customer and communities where we operate. In an effort to fully evaluate reputational risk, we also include qualitative analysis in our strategic scenario analysis process. Example: Williams' scenarios 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 because of their assessment of a company's practices.
Acute physical	Relevant, sometimes included	Acute physical risks, 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.
Chronic physical	Relevant, sometimes included	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 riverbanks 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.

Identifier Risk 1

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, investment funds and other influential investors are increasingly focused on environmental, social and governance practices. As part of our corporate strategy, when appropriate we strive to adapt to investor and stakeholder expectations to prevent reputational damage caused by stakeholders' negative perspectives of hydrocarbons, including natural gas. However, 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 request us to implement additional sustainability procedures on existing assets or expand investments in other clean energy technologies. 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 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 economic 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 could negatively influence stakeholders view of Williams, harming our reputation. As well, the opposition to hydrocarbon infrastructure increases installation costs and can delay in-service dates. Cost increases and delays that prevent the expansion of our business can interrupt the revenue generated by our operations or 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, Constitution Pipeline. For several years, the pipeline suffered delays in obtaining regulatory approvals and received concerns from landowners and environmental groups about potential environmental impacts. 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. This historical cost represents an actual impact figure of the effect stakeholder concerns could have on our business therefore we are using it to estimate future potential impacts.

#### Cost of response to risk

20,000

#### Description of response and explanation of cost calculation

Helping stakeholders understand the environmental and social benefits of natural gas is essential for progressing the world's transition to clean and renewable energy, as well as reducing reputational risks to our business and the natural gas industry as a whole. Costs of responding to this risk are in maintaining early and frequent engagement with our stakeholders using various management resources, such as polling and research, hosting townhalls and community meetings, media monitoring, and educational videos. Our stakeholder engagement process is integrated into the opening stages of every new project. In 2021, the total cost of these efforts was \$20,000.



In 2021, we held three FERC open houses (one in-person and two virtual), with a total estimated cost of \$10,000. Climate change may have been a topic in any of these meetings, and our climate commitment was covered in the virtual meetings. This breaks down into:

\$7,000: in-person meeting (travel, materials, etc.)\$500: virtual meetings\$2,500: advertising

Several Environmental Justice meetings were also held in 2021, at which climate change/climate commitment was discussed. Estimated cost of these meetings is \$10,000.

(S) Williams is developing the Regional Energy Access expansion to increase Northeast consumer access to clean, affordable natural gas. The project is a proposed expansion of Williams' existing infrastructure to provide greater access to cleaner energy by the 2024 winter heating season.

(T) We engage with shareholders/stakeholders to understand different perspectives and sustain positive relationships with them and the communities in which we operate.

(A) During the project, we monitored a variety of stakeholder metrics and engaged with a nongovernmental organization to confirm that local stakeholders did not view the project as significantly controversial. Our stakeholder engagement approach resulted in several opportunities to share project information.

(R) In 2021, we held a series of events with first responder organizations to share project information relevant to facilities in their coverage area. The company also directly reached out to several community-based organizations to increase engagement. This was done by using bilingual project materials to provide stakeholders with information in the appropriate language, as well as holding a series of meetings with local, county and state officials in the spring and fall.

#### Comment



## C2.4

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

Yes

### C2.4a

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

#### Identifier

Opp1

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

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 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): Our solar program creates an opportunity to offset current electricity usage at existing facilities by building photovoltaic solar systems behind the meter. Our solar program currently has 10 projects in advanced development stages expected to offset approximately 5% of Williams facilities' total estimated annual energy demand. There are an additional 5 projects in early development stages. We anticipate that the first projects will go in-service in 2024. In addition to lowering electricity costs on the system, these facilities will generate renewable energy credits that can either be sold into the market or retired to offset Scope 2 emissions.

#### **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)

40,000,000

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

60,000,000

#### Explanation of financial impact figure

As part of Williams path to achieving our absolute emissions reduction goal of 56% by 2030, we have progressed 10 solar projects into advanced development stages which are targeting a 2024 in-service date. In addition, 5 projects are progressing through the early development phase. We have identified solar investment opportunities up to \$400 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 \$40-\$60 million potential financial impact. This assumes standard project return rates.

#### Cost to realize opportunity

400,000,000

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

Cost to Realize Opportunity Calculation: Up to \$400 million over 4 years is the amount of identified solar investment opportunities as part of Williams' approximately \$250 million annual New Energy Ventures 2021 capital allocation. Through 2021, the Solar Program spend was \$5.6 million to advance development of identified projects. For the 10 projects in advanced development stages, the expected capital expenditures are estimated to be roughly \$231.8 million. This cost includes total anticipated spend to procure, build, and install the solar facilities.

In 2021, we rebranded and expanded the Williams' New Energy Ventures group focused on advancing innovative technologies, markets and business models. New Energy Ventures collaborates with talent across Williams, along with external partners and customers, to evaluate and implement projects that deliver environmental and financial gains.

(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.

(Action) In 2021, Williams advanced 10 solar projects to the permitting phase and will continue further development of these and other projects in the future. These projects are currently under development in Ohio, Pennsylvania and Virginia, and the solar facilities will be located either on land currently owned or near our facilities.

(Result) 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 these facilities will range from 1 megawatt to 20 megawatts depending on the energy needs of the Williams facility. The 10 solar projects currently under commercial development across the Williams operational footprint will offset approximately 5% of our historical annual electricity demand.

#### Comment



## **C3. Business Strategy**

## C3.1

#### (C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?

Row 1

#### **Transition plan**

Yes, we have a transition plan which aligns with a 1.5°C world

#### Publicly available transition plan

Yes

#### Mechanism by which feedback is collected from shareholders on your transition plan

We have a different feedback mechanism in place

#### **Description of feedback mechanism**

Williams regularly engages with the ESG groups and analysts for our investors. Through weekly investor calls and meetings, Annual Meeting of Stockholders, biennial perception study and biannual institutional investor update, virtual investor conferences and conference calls, shareholders have opportunities to ask questions and provide feedback. In addition to New Energy Ventures and energy transition, these engagements cover other sustainability topics like biodiversity and land use, corporate governance, diversity and inclusion, and operational greenhouse gas emissions.

#### Frequency of feedback collection

More frequently than annually

#### Attach any relevant documents which detail your transition plan (optional)



Attachment shows New Energy Ventures 2022 Brochure. Additional details can be found at: https://www.williams.com/sustainability/new-energy-ventures/ AND https://www.williams.com/sustainability/climate-commitment/

New-Energy-Ventures-2021\_final-1.pdf

## C3.2

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

	Use of climate-related scenario analysis to inform strategy
Row 1	Yes, qualitative and quantitative

### C3.2a

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

Climate-	Scenario	Temperature	Parameters, assumptions, analytical choices
related	analysis	alignment of	
scenario	coverage	scenario	
Transition scenarios Bespoke transition scenario	Company-wide	1.6°C – 2°C	As a part of our annual corporate strategy development process, we generated and evaluated four custom qualitative and quantitative scenarios with the IEA scenario as a 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. When developing the scenarios, Williams conducted an internal exercise to develop 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&P Global 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 and the potential impacts
	on our business strategy and ultimately the financial results under the different scenarios. The
	qualitative analysis includes consideration of both domestic and global macroeconomic conditions,
	political and regulatory environments, societal preferences, investor preferences, and capital
	availability.

### C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

#### Row 1

#### **Focal questions**

What strategic opportunities can be identified through climate related scenario analysis to help support Williams Strategic Vision and help Williams reach its climate commitment?

What impact would climate scenarios have on Williams' existing business?

#### Results of the climate-related scenario analysis with respect to the focal questions

During the annual strategy session, climate related scenario analysis is provided to assist in evaluating the strategic impact to Williams existing business as well as to help identify potential opportunities that could arise. In an effort to test our strategy Williams develops four customized scenarios. The "Green Transformation" scenario is the most aggressive custom decarbonization scenario and includes changes in regulation as well as public opinion. This scenario shows U.S. legislative actions prohibiting new natural gas infrastructure development and the country pursuing a rapid decarbonization plan, but not quite as fast as the IEA 2 Degree Celsius Scenario (2DS). As a result, in Williams' strategy and scenario discussions, Williams allocated funding to our New Energy Venture Programs which work to develop clean energy initiatives. These initiatives include no/low carbon solutions such as solar, hydrogen, Carbon capture Utilization and Storage (CCUS) and other climate related programs.



## C3.3

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

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	As a midstream industry leader, we believe we can successfully leverage our business as the world moves to a low-carbon future. Hydrogen is one such opportunity that offers versatility as a method for energy storage, a source of fuel and even a raw material input for various industrial and energy- intensive processes. This key tool for decarbonization could reduce downstream GHG emissions for customers and our infrastructure network, aiding them in achieving their own emissions reduction objectives. (Situation) Williams believes that we will need all technologies to scale hydrogen, including hydrogen produced from renewable power and that produced from electrolysis or steam methane reforming coupled with carbon capture. (Task) Williams is pursuing clean hydrogen opportunities, which we define as hydrogen resulting in a carbon footprint of less than 2.0 kilograms of CO2e per kilogram of hydrogen. Clean hydrogen results in an estimated 80% reduction from traditional production technologies. As we expand our clean hydrogen investments, we remain flexible on the method of production used as long as we are achieving the desired CO2e reductions. (Action) For example, in 2021, the Wyoming Energy Authority (WEA) selected Williams to participate in the state's Hydrogen Pilot Project. The project aims to demonstrate the successful design and construction of green and blue hydrogen production and use. With the support of the University of Wyoming School of Energy Resources, Williams will evaluate water access, compatibility and asset integrity in support of green hydrogen production and transport in the vicinity of Wamsutter and Opal, Wyoming, where Williams has facilities. (Result) To show Williams 'commitment to supporting the state's clean energy hub objective, Williams provided an additional \$200,000 to the project, which we plan to complete in 2023. We are exploring concepts including a Williams Wyoming Energy Hub to integrate renewable power, hydrogen, captured CO2 and methanation into our existing assets. Wind and



		in a process known as methanation. This concept balances the intermittency of wind and solar power to create a dispatchable, clean molecule to meet energy demand.
Supply chain and/or value chain	Yes	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. (Situation) Williams recognizes our impact spans beyond our own operations and has begun to expand our climate strategy to include our value chain. (Task) In 2021, Williams began building a Responsibly Sourced Gas (RSG) program to leverage our connectivity to upstream natural gas producers and downstream customers to account for, or certify, the carbon intensity of a natural gas supply chain. For natural gas to be designated as RSG, an independent third party must verify that the gas meets the highest standards and practices to minimize the environmental footprint and safety occurrences. (Action) Customer interest and the location and asset profile of the Haynesville Basin makes it a preferred target area to begin demonstrating the vision for our enterprise-wide RSG program. In support of our RSG efforts in the Haynesville operating area, we are implementing a reference implementation to monitor and quantify methane at the source level using methane emissions monitoring equipment provided by Encino Environmental. Williams deployed artificial intelligence technology and operational data to determine the causes of the methane emissions and demonstrate effective emissions reduction opportunities. (Result) Following a successful deployment in the Haynesville basin, Williams selected Context Labs' Decarbonization as a Service™ (DaaS™) technology. DaaS™ supports RSG gathering, marketing and transporting from well-head to end-user, providing verified emissions profiles and progress of GHG mitigation across the natural gas value chain.
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. (Situation) While we continue to focus on immediate opportunities anchored in our natural gas assets to reduce emissions, scale renewables and build a clean energy economy – we will also look forward and anticipate future innovations and technologies. (Task) Corporate venturing and partnerships with start-up incubators, such as Greentown Labs, demonstrates our commitment to



		innovation by fostering technologies at the forefront of the energy transition. (Action) As part of Williams'
		enorits to pursue sustainable investments, in 2021, we established a venture capital budget for
		innovative climate change technologies such as hydrogen; carbon capture, utilization and storage; and
		renewable and responsible natural gas. (Result) For example, in 2021, Williams:
		Committed \$25 million to Energy Impact Partners, a global venture capital firm looking to accelerate
		progress toward net zero GHG emissions by investing in venture and growth companies advancing
		<ul> <li>Partnered with Energy Innovation Capital to explore industry collaborations and opportunities for decarbonization investments</li> </ul>
		Williams is an inaugural, member of the Tulsa Innovative Labs Energy Tech Leadership Council
		which was created to quide the development of initiatives that establish Tulsa. OK as the nation's most
		inclusive tech community and a leading hub of energy innovation
		inclusive teori community and a reading hub of energy innovation
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
		Carbon Capture, Utilization, and Storage (CCUS), scaling solar energy, and conducting leak detection
		and repair (LDAR) assessments. Williams is currently utilizing 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. In 2021, Williams advanced 10 solar projects to
		projects currently under commercial development across the Williams operational factorint will offect
		approvimately 5% of our historical appual electricity demand. Williams is a signatory of the Interstate
		approximately 5 % of our mistorical annual electricity demand. Williams is a signatory of the interstate
		Induration 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.
		(Situation) We use infrared cameras to quickly identify leaking equipment, and we conduct quarterly,
		semi-annual or annual LDAR surveys on Williams' compressor stations and facilities using an optical
		gas imaging camera. (Task) Williams' LDAR surveys are an effective work practice in significantly
		reducing emissions of fugitive methane to the environment. (Action) Williams developed separate LDAR
		Standards for the gathering and boosting and transmission sectors in 2021 and is developing a
		comprehensive Williams Integrated Management System requirement with associated roles and



responsibilities for LDAR. (Result) Once finalized, we will use these documents to communicate the
roles and responsibilities of Williams' employees for promoting an improved efficient and effective LDAR
program across the enterprise.

## C3.4

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Capital expenditures	Our strategy to address the risks and opportunities of climate change involves allocating capital and other resources to reduce emissions from our operations and invest in no/low carbon opportunities.
		• Connecting the best supplies to the best markets to maximize transportation efficiency, improve cost- effectiveness and significantly reduce emissions;
		• Operating our assets efficiently through preventive maintenance and equipment upgrades and asset modernization programs to reduce emissions;
		• Creating the New Energy Ventures group to explore and invest in no/low carbon initiatives and solutions that help reduce emissions for Williams and our customers;
		o Funding and participating in research related to emissions detection, quantification and reduction technologies:
		o Exploring and implementing renewable energy opportunities, including renewable natural gas and solar energy:
		Using data analytics to identify and drive strategic emissions reduction initiatives;
		• Collaborating with peer companies through key industry initiatives and trade organization involvement to uncover and implement innovative best practices;
		Time horizons: We incorporate this short- and medium-term strategy into our financial planning.



### C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's transition to a 1.5°C world?

Yes

### C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's transition to a 1.5°C world.

Financial Metric CAPEX
Percentage share of selected financial metric aligned with a 1.5°C world in the reporting year (%) 3
Percentage share of selected financial metric planned to align with a 1.5°C world in 2025 (%) 20
Percentage share of selected financial metric planned to align with a 1.5°C world in 2030 (%) 40
Describe the methodology used to identify spending/revenue that is aligned with a 1.5°C world

We have accounted for the CAPEX associated with our Modernization programs and our New Energy Ventures group, as we work toward achieving our climate commitment. New Energy Ventures is a business development group focused on commercializing innovative technologies, markets, and business models. New Energy Ventures collaborates with talent across Williams to evaluate and implement projects to grow our clean energy business. This is based on the 2021 LRP adjusted for the current reporting year.



## 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)

Scope 1 Scope 2

Scope 2 accounting method Location-based

Scope 3 category(ies)



#### Base year

2005

- Base year Scope 1 emissions covered by target (metric tons CO2e) 20,913,943
- Base year Scope 2 emissions covered by target (metric tons CO2e) 1,643,478
- Base year Scope 3 emissions covered by target (metric tons CO2e)
- Total base year emissions covered by target in all selected Scopes (metric tons CO2e) 22,557,421
- Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1 100
- Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes 100

### Target year

2030

Targeted reduction from base year (%)

56



Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated] 9,925,265.24

Scope 1 emissions in reporting year covered by target (metric tons CO2e) 10,257,261.51

Scope 2 emissions in reporting year covered by target (metric tons CO2e) 1,659,384.37

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e) 11.916.645.88

% of target achieved relative to base year [auto-calculated] 84.2356231364

Target status in reporting year

Underway

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

#### **Target ambition**

#### Please explain target coverage and identify any exclusions

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.



#### Plan for achieving target, and progress made to the end of the reporting year

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.

List the emissions reduction initiatives which contributed most to achieving this target

## 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).

Target reference number NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs2

Target year for achieving net zero


2050

#### Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

#### Please explain target coverage and identify any exclusions

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 have also allocated budget to and built partnerships for innovations in solar power, emissions monitoring, hydrogen and carbon capture, utilization and storage (CCUS) that will ultimately contribute to our aspiration to be net zero by 2050.

## Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Yes

#### Planned milestones and/or near-term investments for neutralization at target year

Williams already utilizes carbon capture, utilization and storage (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 evaluating CCUS opportunities through our CCUS Development Program, such as installing carbon capture on existing infrastructure, developing CO2 pipelines and developing sequestration and utilization solutions.

Williams has been identifying locations where solar power installations are economical and can primarily be sited on land adjacent to existing Williams owned facilities. Currently, Williams has 10 solar projects in advanced development stages expected to offset 5% of Williams facilities total estimated demand. These projects consist of installations to supply power for electric compression on Transco and Northeast gathering systems as well as at Williams natural gas processing facilities which can provide demonstrable reductions in our Scope 2 emissions once in service.

Williams is evaluating and developing hydrogen pilot projects along our entire infrastructure footprint. In 2021, the Wyoming Energy Authority awarded Williams a \$1 million grant in partnership with the University of Wyoming School of Energy Resources to complete a study on the potential development of a hydrogen hub in the Wamsutter and Opal areas in southwestern Wyoming. Based on the outcome of the study, the future of hydrogen development in Wyoming could be significant, resulting in Scope 1 and 3 emissions reductions.



Also, Williams' Corporate Venture Capital (CVC) program is investing in innovations at the forefront of the energy transition that will help Williams close the gap of emissions reduction from known technologies today. Williams has committed approximately \$40 million toward venture funds and emerging technology companies. Recently, we used CVC funds to facilitate a partnership with data software company Context Labs to activate technology enabling Williams to offer differentiated services to its customers across the entire natural gas value chain.

In a related effort, Williams has committed to an indirect investment in Satlantis Technology, a developer of satellite-based (GHG) monitoring technology. This investment will further enhance emissions detection and measurement capabilities and feed data into the decarbonization software provided by Context Labs.

Planned actions to mitigate emissions beyond your value chain (optional)

## 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 0.080% for gathering and boosting, 0.111% for processing and 0.301% 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.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	39	0
To be implemented*	9	181,714
Implementation commenced*	0	0
Implemented*	4	740,424
Not to be implemented	0	0



## C4.3b

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

Initiative category & Initiative type Fugitive emissions reductions Oil/natural gas methane leak capture/prevention Estimated annual CO2e savings (metric tonnes CO2e) 1,400 Scope(s) or Scope 3 category(ies) where emissions savings occur 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) 14,400 **Payback period** No payback Estimated lifetime of the initiative Ongoing Comment



In 2021, the Williams TGOM Operating Area implemented voluntary leak detection and repair (LDAR) surveys in an effort to obtain more accurate leak data at compressor stations that do not have regulatory LDAR requirements. Prior to these voluntary LDAR surveys, emissions at not-measured compressor stations were estimated by taking an average of the measured compressor stations on that pipeline. By implementing voluntary LDAR surveys, the goal was to reduce emissions at these facilities since their leak emissions would likely be less than the pipeline averages. On Northwest Pipeline (NWP), the goal was to complete voluntary LDAR surveys at half of the compressor stations not required to have surveys. For the 8 compressor stations surveyed, emissions were reduced an average of 19% from the previous year. With the completion of the voluntary leak surveys, we were able to use actual leak data to calculate emissions. While we focused on NWP in 2021, we plan to expand the requirement for voluntary surveys across the enterprise in 2022.

Initiative category & Initiative type

Energy efficiency in production processes Process optimization

Estimated annual CO2e savings (metric tonnes CO2e) 11.079

Scope(s) or Scope 3 category(ies) where emissions savings occur 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) 20,000

Payback period

No payback



#### Estimated lifetime of the initiative

Ongoing

#### Comment

In 2021, Williams Technical Services identified two ways to reduce our methane emissions from blowdown events by changing the way we operate. First, Williams reduced our methane emissions from blowdown events by modifying control logic to extend pressurized holds on centrifugal compressors reducing the number of blowdown events. A pilot program was conducted at 3 Susquehanna River Supply Hub (SRSH) centrifugal compressor units in 2021. Prior to the pressurized hold logic modification there were 39 blowdown events. After the pressurized hold logic modification there were 8 blowdowns. Second, Williams reduced our methane emissions from blowdown events at 15 compressor stations by routing blowdowns to compressor suction lines instead of to atmosphere.

## Initiative category & Initiative type

Energy efficiency in production processes Process optimization

Estimated annual CO2e savings (metric tonnes CO2e) 783

Scope(s) or Scope 3 category(ies) where emissions savings occur

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)

45,609



#### **Payback period**

No payback

#### Estimated lifetime of the initiative

Ongoing

#### Comment

In mid-2021, Williams reduced emissions from blowdown events at our Keenesburg Gas Plant by collaborating with system planning to perform liquids modelling using gathering data to justify reducing pigging frequency from daily to quarterly. The inlet pig receiver at Keenesburg Gas Plant was also connected to the flare header.

## Initiative category & Initiative type

Energy efficiency in production processes Process optimization

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

727,162

#### Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

### Voluntary/Mandatory

Voluntary

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

5,571,650

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

3,143,387

**Payback period** 



<1 year

#### Estimated lifetime of the initiative

Ongoing

#### Comment

In 2021, Williams incorporated an operating procedure to reduce transmission pipeline blowdown emissions in our Transmission & Gulf of Mexico operating area. The procedure establishes a standard for reducing GHG emissions from large transmission pipeline blowdowns, identified by the volume of natural gas vented directly to the atmosphere. We successfully implemented pressure draw down and recompression measures to lower gas line pressure before pipeline maintenance, to reduce methane emissions and make more natural gas available for sale. In 2021, Williams reported 68 separate blowdown events along our Transco and Northwest Pipelines where natural gas was rerouted or captured and recompressed instead of being vented. Since implementing this procedure in 2021, Williams saved 1.6 billion cubic feet of gas, the equivalent of heating more than 38,164 homes for a year.

## C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	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 with regulations and industry standards. Our Williams Integrated Management System includes
	requirements for monitoring greenhouse gas (GHG) emissions and complying with federal reporting. 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.



Dedicated budget for other emissions reduction activities	Our business units are reducing methane emissions through leak detection and repair, work practice improvements and evaluating equipment upgrades on a site-specific basis. We are planning, developing, and executing projects to upgrade and modernize our gas networks. Our solar program currently has 10 projects in advanced development stage expected which are to offset approximately 5% of Williams facilities' total estimated annual energy demand. We anticipate the first projects will go in-service in 2024. Our Renewable Natural Gas (RNG) program includes constructing new interconnects and pipeline extensions, as well as investments in RNG production. These investments will generate environmental attributes that can either be sold into the market or retired to offset our own emissions. Our Carbon Capture, Utilization and Storage (CCUS) Development Program reduces emissions by removing carbon dioxide from point sources and either adapts it for further beneficial use or stores it permanently underground. Participating in the CCUS value chain can reduce the emissions of our own and our customers' operations. With our Hydrogen Development Program, we are evaluating the impact of hydrogen blending on pipelines and compressor assets, pursuing potential commercial opportunities across Transco and Northwest Pipeline for clean hydrogen production, transportation, storage and energy hubs, and advocating for hydrogen development with associations, universities and government activity. In 2021, Williams incorporated an operating procedure to reduce transmission pipeline blowdown emissions from large transmission pipeline blowdown emissions from large transmission pipeline blowdowns, identified by the volume of natural gas that could have been vented directly to the atmosphere. We successfully implement pressure draw down and recompression measures to lower gas line pressure before pipeline maintenance, to reduce methane emissions and make more natural gas available for sale. In 2021, Williams reported 68 separate blowdown eve
Partnering with governments on technology development	There are several examples of how Williams has partnered with governments on technology development whether that is through improving operational efficiency with U.S EPA Natural Gas STAR or investing in pilot projects to explore emerging fuels such as hydrogen. 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 1993–2021, Williams avoided almost 5.68 million metric tons of CO2e by implementing industry best practices and partnering with the Natural Gas STAR



program.
Beyond making existing systems more efficient, an important focus area of Williams is to explore new fuels including hydrogen. 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. One example of promoting hydrogen use throughout the country is by evaluating the creation of a Hydrogen Hub. After winning a grant from the Wyoming Energy Authority, Williams partnered with the University of Wyoming to study and evaluate the production and transport of hydrogen power in Wamsutter and Opal, Wyoming. This project is projected to be completed in June 2023.
Williams is also actively evaluating opportunities to collaborate with the U.S. Department of Energy, both in developing pilot programs to research new technologies and in exploring carbon capture and storage advancements.

## C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?  $_{\rm Yes}$ 

## C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

# Level of aggregation

Product or service

## Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify EIA US Energy Information Administration



#### Type of product(s) or service(s)

Power Other, please specify Renewable Natural Gas (RNG)

#### Description of product(s) or service(s)

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 by-product 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.

#### Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

No

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario



Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year 95

## 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 2021, 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.

To promote strong governance across the enterprise over environmental practices, Williams will incorporate a new target into our all-employee Annual Incentive Program (AIP) to reduce 2022 methane emissions by 5% compared to the 3-year (2019-2021) baseline average, starting in 2022. Alongside this target, we will continue to reduce our loss of primary containment (LOPC) events, including the unplanned or uncontrolled release of methane. We can influence short-term annual incentives for all employees eligible for our AIP by achieving these targets. We weighted the LOPC goal at 5% of our 2021 AIP for all employees, including the C-suite.

We work with external organizations, through active participation, funding, and program leadership to support efforts that reduce GHG emissions from our industry. In 2021, Williams joined the Collaboratory for Advancing Methane Science (CAMS), an industry-led research consortium that works to better characterize and understand methane emissions. CAMS members work collaboratively to provide actionable, transparent methane science to contribute to the understanding of methane emissions across the oil and gas value chain and inform mitigation strategies. Williams continues to provide



funding to Colorado State University's Methane Emissions Technology Evaluation Center (METEC) for a platform for researchers to test and develop new, innovative technology to measure methane emissions. The Center also connects researchers with industry partners to facilitate energy technology development and prepares students for careers in energy and clean technology. We are also a member of the Texas Methane and Flaring Coalition, which is coalition focused on identifying and promoting best practices for the reduction of flaring and methane emissions in Texas.

## 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 26 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. Williams' LDAR surveys are an effective work practice in significantly reducing emissions of fugitive methane to the environment. Williams developed separate LDAR Standards for the gathering and boosting and transmission sectors in 2021 and is developing a comprehensive WIMS requirement with associated roles and responsibilities for LDAR. Once finalized, we will use these documents to communicate the roles and responsibilities of Williams' employees for promoting an improved efficient and effective LDAR program across the enterprise.



Williams uses a single software platform, Leak Tracker Pro<sup>TM</sup> (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. LTP results help accurately identify leaking equipment components such as valves, connectors, flanges, pumps and open-ended lines to repair them. Williams will analyze LTP results to reduce future leaks at our facilities, helping to achieve our emissions reduction targets.

(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 2021, Williams implemented and executed the Williams' Leak Detection and Repair Program (WilLDAR) for our transmission compressor facilities. We performed an annual WilLDAR survey at 32 Transco and Northwest Pipeline compressor stations that did not previously have LDAR required by state or federal regulation.

(Result) We estimate that proactively instituting voluntary LDAR at these compressor locations will reduce methane emissions by over 50% on average at each facility.

In 2021, Williams also developed a robust compliance management program that aligns with Maryland's new natural gas industry ruling. As part of the effort, we implemented methane emissions control requirements for natural gas-fired engines and an online notification system with information on natural gas venting events.

## 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.

Williams owns an interest in but does not operate production assets or otherwise have oil and gas production activities. Flaring is not relevant to Williams' midstream facilities. 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. Limiting flaring permits regardless of economic conditions will help prevent unnecessary flaring emissions.



# **C5. Emissions methodology**

## C5.1

(C5.1) Is this your first year of reporting emissions data to CDP? No

## C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change? No

## C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?
Row 1	No

## C5.2

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

Scope 1

Base year start



January 1, 2005

## Base year end

December 31, 2005

#### Base year emissions (metric tons CO2e)

20,913,943

#### Comment

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

## Scope 2 (location-based)

### Base year start

January 1, 2005

### Base year end

December 31, 2005

## 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

## Scope 3 category 1: Purchased goods and services

Base year start January 1, 2020

Base year end December 31, 2020

Base year emissions (metric tons CO2e)

#### Comment

Not evaluated. 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.

## Scope 3 category 2: Capital goods

Base year start January 1, 2020

Base year end December 31, 2020

Base year emissions (metric tons CO2e)



Not evaluated. 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.

## Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

#### Base year start

January 1, 2020

#### Base year end

December 31, 2020

### Base year emissions (metric tons CO2e)

#### Comment

Relevant, not evaluated. 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.

## Scope 3 category 4: Upstream transportation and distribution

#### Base year start

January 1, 2020

Base year end December 31, 2020

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Base year emissions (metric tons CO2e)



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

## Scope 3 category 5: Waste generated in operations

Base year start January 1, 2020

Base year end December 31, 2020

### Base year emissions (metric tons CO2e)

#### Comment

Not relevant. 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.

## Scope 3 category 6: Business travel

#### Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

1,398



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.

## Scope 3 category 7: Employee commuting

#### Base year start

January 1, 2020

Base year end

December 31, 2020

### Base year emissions (metric tons CO2e)

24,780

#### Comment

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.

#### Scope 3 category 8: Upstream leased assets

#### Base year start

January 1, 2020

Base year end

December 31, 2020

### Base year emissions (metric tons CO2e)



Not relevant. 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.

#### Scope 3 category 9: Downstream transportation and distribution

Base year start January 1, 2020

Base year end December 31, 2020

#### Base year emissions (metric tons CO2e)

#### Comment

Not relevant. 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.

## Scope 3 category 10: Processing of sold products

#### Base year start

January 1, 2020

Base year end December 31, 2020

Base year emissions (metric tons CO2e)



Not relevant. 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.

## Scope 3 category 11: Use of sold products

Base year start

January 1, 2020

Base year end December 31, 2020

## Base year emissions (metric tons CO2e)

19,275,187

## Comment

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

## Scope 3 category 12: End of life treatment of sold products

#### Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)



Not relevant. 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).

## Scope 3 category 13: Downstream leased assets

Base year start January 1, 2020

Base year end December 31, 2020

### Base year emissions (metric tons CO2e)

#### Comment

Not relevant. 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.

## Scope 3 category 14: Franchises

#### Base year start

January 1, 2020

Base year end December 31, 2020

Base year emissions (metric tons CO2e)



Not relevant. 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).

## Scope 3 category 15: Investments

Base year start January 1, 2020

Base year end December 31, 2020

### Base year emissions (metric tons CO2e)

#### Comment

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.

#### Scope 3: Other (upstream)

#### Base year start

January 1, 2020

#### Base year end

December 31, 2020

Base year emissions (metric tons CO2e)



Not relevant. 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).

## Scope 3: Other (downstream)

Base year start January 1, 2020

Base year end December 31, 2020

### Base year emissions (metric tons CO2e)

#### Comment

Not relevant. 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).

## C5.3

#### (C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

The Greenhouse Gas Protocol: Public Sector Standard

US EPA Mandatory Greenhouse Gas Reporting Rule

Other, please specify

Methane Emissions Estimation Protocol ONE Future



## C6. Emissions data

## **C6.1**

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

#### Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

10,257,261

#### 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 1,659,384

## 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. 2021 emissions were calculated using U.S. EPA Power Profiler Emissions Tool 2020, using emission factors from U.S. EPA eGRID2020 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 11,001 metric tons of greenhouse gas emissions annually using the U.S. Environmental Protection Agency April 2021 emission factor of 0.341 kg CO2 per mile for a typical passenger vehicle, 0.000009 kg CH4 per mile for a typical passenger vehicle, 0.000008 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.

#### Estimated percentage of total Scope 1+2 emissions this excluded source represents

1

#### Explain how you estimated the percentage of emissions this excluded source represents

Using the yearly fleet vehicle mileage and emissions factors for Business Travel and Employee Commuting from the EPA, emissions were estimated.

#### 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 10,800 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.

#### Estimated percentage of total Scope 1+2 emissions this excluded source represents

1

#### Explain how you estimated the percentage of emissions this excluded source represents

Using the total electrical usage for the four corporate offices and the emissions factors obtained from EPA's eGRID, office buildings emissions were estimated.

#### 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.

#### Estimated percentage of total Scope 1+2 emissions this excluded source represents

1

#### Explain how you estimated the percentage of emissions this excluded source represents

Using data provided from OCSAQS, the CO2 emissions from our offshore sites were summed and compared to the total Scope 1 and 2 emissions from 2021.

## 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 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.

#### **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 emissions from upstream transportation and distribution. Therefore, we do not anticipate this being a material source of Scope 3 greenhouse gas emissions.

#### 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

## Emissions in reporting year (metric tons CO2e)

1,463

#### **Emissions calculation methodology**

Average data method Distance-based method

#### 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 2021 were less than 1,500 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

#### Emissions in reporting year (metric tons CO2e)



25,729

#### **Emissions calculation methodology**

Average data method

#### 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. Employee commuting is less than 26,000 metric tons CO2e per year, using the U.S. Environmental Protection Agency April 2021 emission factor of .341 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' 4,800 full-time employees as of June 2022.

#### 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

#### Emissions in reporting year (metric tons CO2e)

20,479,290

#### **Emissions calculation methodology**

Site-specific method

### 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 0.001121356 Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e) 11,916,645 Metric denominator unit total revenue Metric denominator: Unit total 10,627,000,000 Scope 2 figure used Location-based % change from previous year 27 **Direction of change** Decreased **Reason for change** In 2021, Williams maintained its CO2e emissions total. The decrease in intensity was primarily due to a 37.7% increase in revenue from 2020.

Williams also invested in multiple emissions-reduction initiatives to achieve this decrease.



In 2021, the Williams TGOM Operating Area implemented voluntary leak detection and repair (LDAR) surveys to obtain more accurate leak data at compressor stations that do not have regulatory LDAR requirements. By implementing voluntary LDAR surveys, the goal was to reduce emissions at these facilities since their leak emissions would likely be less than the pipeline averages. On Northwest Pipeline (NWP), the goal was to complete voluntary LDAR surveys at half of the compressor stations not required to have surveys. For the 8 compressor stations surveyed, emissions were reduced an average of 19% from the previous year.

In 2021, Williams Technical Services also identified two ways to reduce our methane emissions from blowdown events. These include modifying control logic to extend pressurized holds on centrifugal compressors, reducing the overall number of blowdowns, and routing blowdowns to compressor suction lines instead of to the atmosphere.

In our Transco and Northwest pipelines, we then successfully implemented pressure draw down and recompression measures to lower gas line pressure before pipeline maintenance, to reduce methane emissions and make more natural gas available for sale. In 2021, Williams reported 68 separate blowdown events along these pipelines where natural gas was rerouted or captured and recompressed instead of being vented. Since implementing this procedure in 2021, Williams saved 1.6 billion cubic feet of gas, the equivalent of heating more than 38,164 homes for a year.

Williams also reduced emissions from blowdown events at our Keenesburg Gas Plant by collaborating with system planning to perform liquids modelling. This was done through gathering data to justify reducing pigging frequency from daily to quarterly. The inlet pig receiver at Keenesburg Gas Plant was also connected to the flare header.

These four emissions reduction initiatives reduced our emissions by 740,424 metric tons CO2e in 2021 as compared to 2020.

### 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 0.78

#### % change from previous year

21

#### **Direction of change**

Decreased

#### **Reason for change**

In 2021, Williams maintained its CO2e emissions while having an increase in million cubic feet of natural gas throughput throughout the enterprise.

#### Comment

# 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 0.35
 Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division 0.02
 Comment



0.35% = methane emissions in metric tons CH4 divided by throughput of natural gas in million standard cubic feet. 0.02% = metric tons CH4 divided by throughput of hydrocarbons in mt. Throughput is for the gathering and boosting, natural gas processing, and transmission and storage segments combined. Methane molecules could be processed or moved multiple times among the three segments and multiple counting is not accounted for in this metric.

# **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).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	9,086,214	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	1,166,369	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	4,677	IPCC Fourth Assessment Report (AR4 - 100 year)

# 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) 7,903,607

# Gross Scope 1 methane emissions (metric tons CH4) 2,058

#### Total gross Scope 1 emissions (metric tons CO2e) 7,959,462

#### 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)



#### 292,210

# Gross Scope 1 methane emissions (metric tons CH4) 1,338

# Total gross Scope 1 emissions (metric tons CO2e) 325,838

#### 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)

5,121

#### Gross Scope 1 methane emissions (metric tons CH4)

31,226

#### Total gross Scope 1 emissions (metric tons CO2e)

785,790

#### 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) 286

Gross Scope 1 methane emissions (metric tons CH4) 8,443

Total gross Scope 1 emissions (metric tons CO2e) 211,385

#### 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) 884,988

Gross Scope 1 methane emissions (metric tons CH4) 3,587

Total gross Scope 1 emissions (metric tons CO2e) 974,785

#### 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.

Country/Region	Scope 1 emissions (metric tons CO2e)
North America	10,257,261

# 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.

Activity	Scope 1 emissions (metric tons CO2e)
Gathering and Boosting	3,828,338
Processing	3,164,191



Transmission and Storage

3,264,732

# 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.

	Gross Scope 1 emissions, metric tons CO2e	Comment
Oil and gas production activities (upstream)	0	
Oil and gas production activities (midstream)	10,257,261	All Scope 1 emissions are midstream
Oil and gas production activities (downstream)	0	

## C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	
North America	1,659,384		

### 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.

Activity	Scope 2, location-based (metric tons	Scope 2, market-based (metric tons
	CO2e)	CO2e)



Electric Power for Gathering, Transmission, and Processing	1,659,384	
Assets		

### 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.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Oil and gas production activities (upstream)	0		
Oil and gas production activities (midstream)	1,659,384		All Scope 2 emissions are midstream.
Oil and gas production activities (downstream)	0		

## C7.9

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

reporting year?

Decreased

## C7.9a

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



	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	Williams is not currently tracking renewable energy usage. Renewable percentage of purchased power is accounted for in Scope 2 emissions calculations and at this time is not easily extrapolated.
Other emissions reduction activities	740,424	Decreased	6.2	Williams implemented several emissions reduction initiatives in 2021 as described in 4.3b. A corporate initiative to reduce the number and volume of blowdowns and to capture and recompress large pipeline blowdowns, voluntary LDAR surveys to obtain more accurate leak data at compressor stations that do not have regulatory LDAR requirements, reducing pigging frequency, reducing our methane emissions from blowdown events by modifying control logic to extend pressurized holds on centrifugal compressors, and routing blowdowns to compressor suction lines instead of to atmosphere resulted in GHG emissions reductions in 2021. (-740,424/11,938,012)*100=-6.2%
Divestment	24,856	Decreased	0.21	Williams divested 5 gathering and boosting compressor stations in 2021. These divestitures resulted in a 24,856 mt CO2e emissions decrease24,856/11,938,012 = -0.21%
Acquisitions	0	No change	0	Williams made no acquisitions that changed GHG emissions in 2021.
Mergers	0	No change	0	Williams had no mergers that changed GHG emissions in 2021.
Change in output	377,446	Increased	3.16	An 8.0 % increase in volume of natural gas handled in Transmission and Storage and 5.1 % increase in Natural Gas Processing in 2021 vs 2020 resulted in 377,446 more mt CO2e being emitted from fuel combustion sources in these two industrial segments in 2021 vs 2020. 377,446/11,938,012 = 3.16%



Change in methodology	234,539	Decreased	1.96	To improve the accuracy of reporting in 2021, Williams used metered fuel instead of equipment run hours and maximum high heat input value to calculate Scope 1 emissions from fuel combustion sources at 89 gathering and boosting compressor stations. This resulted in 234,539 mt CO2e less GHG emissions from fuel combustion sources in the Gathering and Boosting segment234,539/11,938,012 = -1.96%
Change in boundary	0	No change	0	There are no changes in the boundary between 2020 and 2021.
Change in physical operating conditions	0	No change	0	There are no changes in the physical operating conditions between 2020 and 2021.
Unidentified	0	No change	0	There were no unidentified significant changes in GHG emissions in 2021.
Other	601,007	Increased	5.03	In 2021, Williams had increased GHG emissions resulting from the startup of 2 AGR units, increased flaring in natural gas processing, and increased equipment leaks in transmission and storage. We saw a decrease in GHG emissions from dehydrators, compressors, pipeline leaks, pneumatic pumps, and storage tanks. There was also an estimated increase in emissions which could have occurred from maintenance and construction activities if not for the emissions reduction initiatives implemented in 2021 (detailed in 4.3b) such as the pipeline blowdown reduction standard, voluntary LDAR surveys to obtain more accurate leak data at compressor stations that do not have regulatory LDAR requirements, reducing our methane emissions from blowdown events by modifying control logic to extend pressurized holds on centrifugal compressors, and routing blowdowns to compressor suction lines instead of to atmosphere. (601,007/11,938,012)*100=5.03%



### C7.9b

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

Location-based

# C8. Energy

## **C8.1**

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

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

### **C8.2**

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

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

### C8.2a

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



	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non- renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	43,318,021	43,318,021
Consumption of purchased or acquired electricity		505,958	3,571,197	4,077,155
Total energy consumption		505,958	46,889,218	47,395,176

# C8.2b

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

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

## C8.2c

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

#### Sustainable biomass

Heating value

Unable to confirm heating value

#### Total fuel MWh consumed by the organization



0

MWh fuel consumed for self-generation of electricity 0 MWh fuel consumed for self-generation of heat 0

MWh fuel consumed for self-generation of cooling 0

Comment

#### Other biomass

Heating value Unable to confirm heating value

**Total fuel MWh consumed by the organization** 

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of cooling

Comment



#### Other renewable fuels (e.g. renewable hydrogen)

#### Heating value

Unable to confirm heating value

#### Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of cooling

Comment

#### Coal

Heating value Unable to confirm heating value Total fuel MWh consumed by the organization 0 MWh fuel consumed for self-generation of electricity 0 MWh fuel consumed for self-generation of heat

0



### MWh fuel consumed for self-generation of cooling

0

#### Comment

Oil

#### Heating value

Unable to confirm heating value

#### Total fuel MWh consumed by the organization

0

# MWh fuel consumed for self-generation of electricity 0

MWh fuel consumed for self-generation of heat 0

MWh fuel consumed for self-generation of cooling

#### Comment

#### Gas

Heating value HHV

Total fuel MWh consumed by the organization 43,317,923



# MWh fuel consumed for self-generation of electricity 39,011,467

MWh fuel consumed for self-generation of heat

4,306,456

#### MWh fuel consumed for self-generation of cooling

0

#### Comment

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

#### Other non-renewable fuels (e.g. non-renewable hydrogen)

# Heating value

HHV

Total fuel MWh consumed by the organization 1,274

MWh fuel consumed for self-generation of electricity 1,274

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of cooling

0

#### Comment

Emissions are calculated per the U.S. Environmental Protection Agency Greenhouse Gas Reporting Program methodology. This category specifies our diesel consumption for the reporting year.



#### Total fuel

Heating value

Total fuel MWh consumed by the organization 43,319,197

MWh fuel consumed for self-generation of electricity 39,012,741

MWh fuel consumed for self-generation of heat 4,306,456

MWh fuel consumed for self-generation of cooling 0

Comment

# C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area United States of America

Consumption of electricity (MWh)

4,077,155

Consumption of heat, steam, and cooling (MWh)



0

#### Total non-fuel energy consumption (MWh) [Auto-calculated]

4,077,155

# **C9. Additional metrics**

### C9.1

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

#### Description

Other, please specify

ONE Future methane intensity, percent gathering and boosting

#### Metric value

0.02

#### Metric numerator

Mass of methane emitted

#### Metric denominator (intensity metric only)

Mass of methane throughput

# % change from previous year

22

#### **Direction of change**



#### Decreased

#### Please explain

The decrease in methane intensity in 2021 is due to both a reduction in methane emissions and growth in throughput. Methane emissions were reduced through gains in operational efficiency and deliberate work practice. Williams experienced a decrease in the number of centrifugal compressors and gas-driven pneumatic controllers due to decommissioning of compressor stations as part of a project to optimize system efficiency and some compressor station divestitures. We reduced methane emissions by a decreasing the number and volume of blowdowns with intentional work practice and maintenance scheduling. We also achieved an increase in natural gas gathering throughput through the system.

#### Description

Other, please specify ONE Future methane intensity, percent processing

#### **Metric value**

0.02

#### Metric numerator

Mass of methane emitted

#### Metric denominator (intensity metric only)

Mass of methane throughput

#### % change from previous year

6

#### **Direction of change**

Decreased

#### **Please explain**

Increase in natural gas processing throughput. (Emissions essentially unchanged.)



#### Description

Other, please specify ONE Future methane intensity, percent transmission and underground storage

#### Metric value

0.02

#### Metric numerator

Mass of methane emitted

#### Metric denominator (intensity metric only)

Mass of methane throughput

#### % change from previous year

9

#### Direction of change

Decreased

#### Please explain

Increase in natural gas transmission throughput. (Emissions essentially unchanged.)

#### Description

Other, please specify Gas flaring

#### Metric value

163.92



#### Metric numerator

Thousands of metric tons

#### Metric denominator (intensity metric only)

% change from previous year

22

#### **Direction of change**

Increased

#### Please explain

Increase in waste gas volume to flares in processing segment and gathering and boosting segment. Operated two additional thermal oxidizers in 2021 vs 2020.

# C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in Iow-carbon R&D	Comment
Row 1	Yes	New Energy Ventures is exploring and supporting emerging technologies, markets and new ways for Williams to advance our clean energy future. Our Carbon Capture, Utilization and Storage (CCUS) Development Program utilizes our core competencies of project execution and safe operations to develop the significant infrastructure required to capture, transport and sequester CO2. Williams already captures CO2 at some of our gas processing and treatment plants, and to participate in the build-out of a CO2 economy, we will be exploring: • Capture at existing Williams gathering and processing assets, compressor stations and customer facilities



Repurposing existing, underutilized transmission assets for CO2 service
<ul> <li>Sequestration partnerships to ensure captured CO2 will be sequestered permanently</li> </ul>
• Building, owning and operating greenfield CO2 infrastructure.
Our Hydrogen Development Program utilizes our expertise at treating, processing, storing and transporting gas. We are actively working on projects such as:
Blending hydrogen into our existing transmission lines
• Clean hydrogen production from natural gas with CCUS (blue hydrogen) and from electrolysis with renewable power (green hydrogen)
Utilizing hydrogen blends as fuel for our turbines and compressors to reduce Scope 1 emissions
Developing hydrogen pipelines
Developing hydrogen storage solutions
• Producing synthetic methane, or renewable natural gas, from clean hydrogen combined with captured CO2.
Our Renewable Power Generation and Storage Program explores how we could apply our experience building and operating critical natural gas infrastructure to the clean power space. As our participation in the power segment grows with our solar program, we will explore synergies such as offshore power transmission and onshore power infrastructure.
Our clean energy hub exploration includes working with partners to create economies of scale and meaningful emissions reductions. Many of these emerging opportunities have significant overlap and synergies with each other and our core natural gas business, such as a Williams Wyoming Energy Hub, CCUS hubs and a blue hydrogen hub scoping initiative.

# 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.



Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Methane detection and reduction	Applied research and development	≤20%	8,000	Williams is donating technical expertise and equipment to various research organizations to further enhance methane detection technologies. Williams is a partner of Methane Emissions Technology Evaluation Center (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%	289,592	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.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	No third-party verification or assurance

## 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

O ERM CVS 2022 CDP Climate Change Assurance Statement Williams\_FINAL27July.pdf



Page/ section reference

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 2022 CDP Climate Change Assurance Statement Williams\_FINAL27July.pdf



Page/ section reference

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 consider 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. Where applied, the internal carbon price is currently used to evaluate Scope 1 emissions and larger modernization projects.

# C12. Engagement

## C12.1

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

Yes, other partners in the value chain

## C12.1d

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

We are using readily available technology to pursue immediate methane emissions reduction opportunities, implement work practice improvements and evaluate equipment upgrades on a site-specific basis. We strive to provide the best product to our customers while increasing our transparency and verifiability around quantifying and reducing methane emissions. To guarantee Williams is engaged on all fronts, we have joined GTI Project Veritas and the Collaboratory for Advancing Methane Science. This nonprofit initiative brings together diverse stakeholders, including nonprofits, industry peers, and university researchers, to develop methodologies for quantifying methane emissions intensities and better defining responsible natural gas. Joining these initiatives allows us to engage in the growing conversations around the quantification and reduction of methane emissions and evaluate the most recent technologies. We will expand these opportunities while looking to invest in future clean energy projects and carbon abatement instruments.



(Situation): While methane, the main component of natural gas, is used to heat homes and power the electric grid, it's also a contributor to greenhouse gas emissions. That's why it's increasingly critical to quantify, reduce and monitor methane emissions from every segment of the natural gas value chain, from wells to processing facilities, to transmission and distribution systems to industry and consumers.

(Task): In 2021, Williams began building a Responsibly Sourced Gas (RSG) program to leverage our connectivity to upstream natural gas producers and downstream customers to account for, or certify, the carbon intensity of a natural gas supply chain. For natural gas to be designated as RSG, an independent third party must verify that the gas meets the highest standards and practices to minimize the environmental footprint and safety occurrences.

(Action): Our New Energy Ventures team received significant interest from utility and power customers about purchasing RSG from our Transco and Northwest Pipelines. In addition, customer interest and the location and asset profile of the Haynesville Basin makes it a preferred target area to begin demonstrating the vision for our enterprise-wide RSG program. In support of our RSG efforts in the Haynesville operating area, we are implementing a reference implementation to monitor and quantify methane at the source level using methane emissions monitoring equipment provided by Encino Environmental. Williams deployed artificial intelligence technology and operational data to determine the causes of the methane emissions and demonstrate effective emissions reduction opportunities.

(Result): Following a successful deployment in the Haynesville basin, Williams selected Context Labs' Decarbonization as a Service<sup>™</sup> (DaaS<sup>™</sup>) technology. DaaS<sup>™</sup> supports RSG gathering, marketing and transporting from well-head to end-user, providing verified emissions profiles and progress of GHG mitigation across the natural gas value chain. With DaaS<sup>™</sup>, Williams can offer differentiated services to our customers, including end-to-end measured, verifiable and transparent emissions data for real-time decision-making. In addition, we will gain new insights into day-to-day operations, allowing system optimization and emissions efficiencies and reductions across our asset base.

## C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

Yes, climate-related requirements are included in our supplier contracts



### C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

#### **Climate-related requirement**

Complying with regulatory requirements

#### Description of this climate related requirement

As part of Williams' Code of Conduct for Suppliers and Contractors, 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.

#### % suppliers by procurement spend that have to comply with this climate-related requirement

98

% suppliers by procurement spend in compliance with this climate-related requirement 98

#### Mechanisms for monitoring compliance with this climate-related requirement

No mechanism for monitoring compliance

#### Response to supplier non-compliance with this climate-related requirement No response

# C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?



#### Row 1

#### Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, we engage indirectly through trade associations

# Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

No, and we do not plan to have one in the next two years

# Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

To integrate consistent environmental, social, and governance (ESG) strategy including climate change across the organization, Williams has an ESG Director. Because these responsibilities tie directly to our investor relations, the ESG Director reports to Williams' Vice President of Investor Relations & ESG. The Vice President of Investor Relations & ESG reports to the SVP & Chief Financial Officer who then reports to the CEO. This clear chain of command ensures that our climate-engagement strategy aligns with shareholder considerations across the organization.

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 at the federal, state and local levels on policies that impact our current and future operations. To ensure consistency in our political engagement activities, Our Government Affairs and Outreach team oversees our education of 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 align with shareholder expectations while creating a uniform response across the company. Members of our executive management team attend investor conferences, conference calls, question and answer sessions and 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.



## C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Focus of policy, law, or reg Other, please specify	gulation that may impact the climate
Specify the policy, law, or U.S. Senate Committee or	regulation on which your organization is engaging with policy makers າ Energy and Natural Resources
Policy, law, or regulation g	jeographic coverage
Country/region the policy, United States of America	law, or regulation applies to
Your organization's positi Support with no exceptions	ion on the policy, law, or regulation s
Description of engagemen We provided testimony exp consumption.	<b>nt with policy makers</b> plaining the opportunities and challenges of using clean hydrogen to further decarbonize energy production and
Details of exceptions (if ar	pplicable) and your organization's proposed alternative approach to the policy, law or regulation



#### Focus of policy, law, or regulation that may impact the climate

Other, please specify Clean Energy & Pipeline Safety Funding

### Specify the policy, law, or regulation on which your organization is engaging with policy makers

Bipartisan Infrastructure Framework

#### Policy, law, or regulation geographic coverage

National

#### Country/region the policy, law, or regulation applies to

United States of America

#### Your organization's position on the policy, law, or regulation

Support with minor exceptions

#### Description of engagement with policy makers

Direct engagement by Williams through comment letters and in-person meetings with policymakers, as well as engagements through coalitions that Williams is a part of.

#### Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Williams met with policymakers to advocate for provisions and funding in the Bipartisan Infrastructure Framework (BIF) related to: hydrogen research, development and deployment; carbon capture, storage, and utilization; and, PHMSA modernization. Williams would have preferred to see a stronger focus on natural gas infrastructure in the BIF, but we strongly supported many of the provisions in the final version of this legislation signed by the President.

#### Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned



#### Focus of policy, law, or regulation that may impact the climate

Other, please specify Energy Reliability

#### Specify the policy, law, or regulation on which your organization is engaging with policy makers

Federal Energy Regulatory Commission

#### Policy, law, or regulation geographic coverage

National

Country/region the policy, law, or regulation applies to

United States of America

#### Your organization's position on the policy, law, or regulation

Support with minor exceptions

#### Description of engagement with policy makers

Williams participated in a November 2021 FERC technical conference on GHG emissions mitigation. We also provided detailed comments on the FERC's review of its 1999 Policy Statement on the Certification of New Interstate Natural Gas Facilities.

#### Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

In response to FERC's request for input from industry, Williams provided our recommendations related to: the Commission's authority to regulate GHG emissions; quantifying project GHG emissions; and, potential mitigation approaches. We have had concerns that FERC's proposed policy changes could result in greater regulatory uncertainty related to the permitting and construction of natural gas infrastructure. Williams has shared those concerns with the Commission, and FERC is currently in the process of finalizing its policy statements on pipeline certification and greenhouse gas emissions.

#### Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned


### C12.3b

(C12.3b) Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association Other, please specify Interstate Natural Gas Association of America (INGAA)

#### Is your organization's position on climate change consistent with theirs?

Consistent

#### Has your organization influenced, or is your organization attempting to influence their position?

We have already influenced them to change their position

## State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

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. Williams' Senior Vice President of Corporate Strategic Development is an INGAA Board of Director.

Williams, as the first North American midstream company with its own climate commitment, has encouraged INGAA to adopt its own robust climate and environmental justice positions. We also worked with INGAA on its methane fee positioning, encouraging an industry-wide and strong methane controls.



Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

#### Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

#### **Trade association**

**Business Roundtable** 

#### Is your organization's position on climate change consistent with theirs?

Consistent

#### Has your organization influenced, or is your organization attempting to influence their position?

We are not attempting to influence their position

# State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

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. Williams' CEO is a member of Business Roundtable.



Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

#### Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

#### **Trade association**

Other, please specify Clean Hydrogen Future Coalition

#### Is your organization's position on climate change consistent with theirs?

Consistent

#### Has your organization influenced, or is your organization attempting to influence their position?

We are not attempting to influence their position

# State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The Clean Hydrogen Future Coalition (CHFC) was founded to bring together a diverse group of stakeholders to promote clean hydrogen as a critical pathway to achieve global decarbonization objectives while also increasing U.S. global competitiveness. With over 20 leading stakeholder and industry participants, the Clean Hydrogen Future Coalition represents a diverse group of energy companies, labor unions, utilities, NGOs, equipment suppliers, and project developers who are committed to the advancement of a net zero CO2 economy that is supported by infrastructure across the supply chain to fully scale clean hydrogen production and use in the U.S.



Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

#### Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

#### **Trade association**

Other, please specify Coalition for Renewable Natural Gas

#### Is your organization's position on climate change consistent with theirs?

Consistent

#### Has your organization influenced, or is your organization attempting to influence their position?

We are not attempting to influence their position

# State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

RNG Coalition will provide policy advocacy and education to help ensure sustainability and growth for renewable natural gas (RNG) and to improve recognition of the renewable natural gas process (methane mitigation) as a critical part of the solution to global climate change. RNG Coalition is a non-profit organization dedicated to the sustainable advancement of RNG as a clean, green, alternative and domestic energy resource - and as a key component and partial solution to addressing global climate change. RNG Coalition advocates and educates 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. RNG Coalition's Sustainable Methane Abatement & Recycling Timeline (SMART) is an initiative to



capture and control methane from 43,000+ organic waste sites in North America by 2050, achieving significant benchmarks by 2025, 2030 and 2040.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

#### **Trade association**

Other, please specify Global Carbon Capture and Storage Institute

#### Is your organization's position on climate change consistent with theirs?

Consistent

#### Has your organization influenced, or is your organization attempting to influence their position?

We are not attempting to influence their position

# State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The Global CCS Institute is an international think tank whose mission is to accelerate the deployment of carbon capture and storage (CCS), a vital technology to tackle climate change and deliver climate neutrality. With a team of almost 40 professionals working with and on behalf of our Members, we drive the adoption of CCS as quickly and cost effectively as possible by sharing expertise, building capacity and providing advice and support so that this this vital technology can play its part in reducing greenhouse gas emissions.



Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

### C12.4

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

#### Publication

In mainstream reports

#### Status

Complete

#### Attach the document

0 2021-Annual-Report-(WMB).pdf

#### Page/Section reference

PDF pages 2, 30-31, 35-37

#### **Content elements**



#### Strategy Risks & opportunities Emissions figures Emission targets

#### Comment

#### Publication

In voluntary sustainability report

#### Status

Complete

#### Attach the document

UWilliams\_2021SustainabilityReport.pdf

#### **Page/Section reference**

Pages 21-27, 34-39, 95-96, 111, 114, 116

#### **Content elements**

Governance

Strategy

- **Risks & opportunities**
- Emissions figures
- Emission targets
- Other metrics

#### Comment



## C15. Biodiversity

## C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, executive management-level responsibility	Williams strives to preserve the environment for future generations by avoiding, minimizing, and mitigating potential impacts on biodiversity and land use during routing, siting, and construction. Construction and operation activities that could affect biodiversity are performed at or above regulatory standards. The Environmental, Health and Safety (EHS) Committee of the Board of Directors has oversight responsibilities regarding the Company's management of environmental, health and safety matters, including compliance with applicable laws and regulations. The EHS Committee reviews, monitors, and reports to the Board on the performance and activities on EHS matters and provides oversight to the company's environmental practices to ensure compliance with applicable legal and regulatory requirements.

## C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity
Row 1	No, but we plan to do so within the next 2 years



## C15.3

#### (C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?
Row 1	No, and we do not plan to assess biodiversity-related impacts within the next two years

### C15.4

#### (C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity- related commitments?	Type of action taken to progress biodiversity- related commitments
Row	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection
1		Land/water management
		Species management

### C15.5

#### (C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row	Yes, we use indicators	State and benefit indicators
1		Response indicators
		Other, please specify
		species diversity, survivability, percent cover, stabilization / topography



## C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Governance Impacts on biodiversity Influence on public policy and lobbying	Pages 42-44, 98, 114 ℚ 1

<sup>0</sup> <sup>1</sup>Williams\_2021SustainabilityReport.pdf

## C16. 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.

## C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.



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

## Submit your response

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

English

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

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

#### Please confirm below

I have read and accept the applicable Terms