

C0. Introduction

C0.1

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

Altria Group, Inc. ("Altria") is headquartered in Richmond, Virginia. Its operating companies include Philip Morris USA ("PM USA"), U.S. Smokeless Tobacco Company ("USSTC"), John Middleton Company ("JMC") and Nat Sherman. Altria discontinued its e-vapor business under Nu Mark in 2018. Altria also owns Ste. Michelle Wine Estates ("Ste. Michelle") and Philip Morris Capital Corporation, and holds equity investments in Anheuser-Busch InBev, JUUL Labs, Inc. and Cronos Group, Inc. Altria Client Services LLC ("ALCS") is a subsidiary that provides Altria and its companies with high quality services, and Altria Group Distribution Company ("AGDC") is a subsidiary that provides sales, distribution and consumer engagement services to Altria's tobacco companies. Altria's Mission is to own and develop financially disciplined businesses that are leaders in responsibly providing adult tobacco and wine consumers with superior branded products. This response is a summary of progress on Altria's CDP Climate Change questionnaire and is not exhaustive of all information on this topic. Some statements may be forward-looking or aspirational, and these statements may involve a number of risks or uncertainties.

C0.2

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

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

C0.3

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

United States of America

C0.4

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

USD

C0.5

**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.**

Operational control

C-AC0.6/C-FB0.6/C-PF0.6

**(C-AC0.6/C-FB0.6/C-PF0.6) Are emissions from agricultural/forestry, processing/manufacturing, distribution activities or emissions from the consumption of your products – whether in your direct operations or in other parts of your value chain – relevant to your current CDP climate change disclosure?**

	Relevance
Agriculture/Forestry	Both own land and elsewhere in the value chain [Agriculture/Forestry only]
Processing/Manufacturing	Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only]
Distribution	Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only]
Consumption	Elsewhere in the value chain only [Agriculture/Forestry/processing/manufacturing/Distribution only]

C-AC0.7/C-FB0.7/C-PF0.7

**(C-AC0.7/C-FB0.7/C-PF0.7) Which agricultural commodity(ies) that your organization produces and/or sources are the most significant to your business by revenue? Select up to five.**

**Agricultural commodity**

Tobacco

**% of revenue dependent on this agricultural commodity**

More than 80%

**Produced or sourced**

Sourced

**Please explain**

Altria's tobacco operating companies source tobacco for use in their products. Revenues from Altria's tobacco companies represent over 95% of Altria's revenues as reported in the company's Form 10-K.

**Agricultural commodity**

Other, please specify (Wine Grapes)

**% of revenue dependent on this agricultural commodity**

Less than 10%

**Produced or sourced**

Both

**Please explain**

Ste. Michelle owns more than 3,900 acres of vineyards and contracts for grapes from long-term grape growers on approximately 29,083 acres. Revenues from Ste. Michelle represent less than 5% of Altria's revenues as reported in the company's Form 10-K.

**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	Altria's Board of Directors' Nominating, Corporate Governance and Social Responsibility Committee oversees our public affairs, corporate reputation, governance and social responsibility strategies. The committee consists entirely of non-management directors, all of whom the Board has determined are independent. With the support of our full Board, the Committee is charged with oversight of management efforts to identify, evaluate and understand the environmental, social and governance issues that present risks and opportunities for our businesses' operational and financial activities. Environmental issues overseen by the Committee include climate-related risks and opportunities which are managed as part of Altria's overall corporate responsibility strategies.

**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 risk management policies Reviewing and guiding business plans Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	The Board of Directors is briefed on our corporate responsibility strategies, including environmental and climate change-related issues, by the Senior Vice President of Corporate Citizenship. This includes implementation and performance against our long-term environmental goals, including our Scope 1 and 2 greenhouse gas emissions reduction goal, as well as briefing on any significant near or longer-term business plans, major plans of action and strategy at the corporate and operating company level as related to climate risks and opportunities, such as Altria’s commitment to the Science Based Targets initiative. If a climate-related risk is considered to be substantive under Altria’s Enterprise Risk Management process, the Board would be briefed and would review and guide proposed business plans to mitigate the risk.

**C1.2**

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Environment/ Sustainability manager	Both assessing and managing climate-related risks and opportunities	Less frequently than annually

**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).**

The Director of Corporate Responsibility manages Altria’s corporate responsibility strategies. This individual reports into the Senior Vice President of Corporate Citizenship, who reports to the Senior Vice President of Corporate Citizenship and Government Affairs, who reports directly to Altria’s Chairman and CEO. The SVP of Corporate Citizenship oversees our corporate responsibility strategies, including climate and water-related issues, and briefs Altria’s Leadership Team and Board of Directors on these topics as part of our long-term environmental goals.

As part of the role of managing our corporate responsibility strategies, the Director of Corporate Responsibility works across Altria’s operating and service companies to establish annual plans, set goals and track progress against our corporate responsibility focus areas, including progress against our long-term environmental goals. These goals include an enterprise-wide target to reduce Scope 1 and 2 greenhouse gas emissions 20% by 2025 against a 2015 baseline. To help manage and guide progress against this target, the Director of Corporate Responsibility and her team are responsible for identifying and assessing existing and emerging climate-related risks and opportunities for Altria and its companies.

Risks and opportunities identified by this team, including regulatory risks and opportunities identified by ALCS’ Safety, Health and Environment team, are evaluated and discussed throughout the year with functional groups from across Altria’s operating and service companies. Through collaboration with these teams, climate-related risks and opportunities are addressed and managed through the implementation of projects and initiatives at a company-level, such as emissions reduction activities in a manufacturing facility.

If a specific climate-related risk or opportunity raised during these engagements is considered to be substantive under Altria’s Enterprise Risk Management process, the Board would be briefed by the Senior Vice President of Corporate Citizenship.

**C1.3**

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

Yes

**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).****Who is entitled to benefit from these incentives?**

Environment/Sustainability manager

**Types of incentives**

Monetary reward

**Activity incentivized**

Emissions reduction target

**Comment**

In 2018, the Corporate Responsibility team worked across Altria's operating companies and service company affiliates to track progress against our long-term environmental goals. These goals include by 2025: reducing Altria's Scope 1 and 2 emissions by 20%; cutting absolute energy use by 18%; reducing waste to landfill by 25%; and achieving 50% water neutrality across operations. In addition to these goals, in 2018 we set a goal to reduce absolute Scope 3 emissions by 15% by 2030 and formally committed to the Science Based Targets initiative. Driving progress against this goal will include ongoing engagement with our companies' suppliers going forward. The Corporate Responsibility team also engages with company employees to share progress against these goals, and encourages behavior change to help make continued progress, including education on proper waste management practices in our workspaces. This work was part of individual performance objectives for each member of the Corporate Responsibility team, formally set within Altria's Performance Partnership Process. Achievement of performance objectives is evaluated with each employee's supervisor as part of the annual performance review process; with achievement of objectives influencing merit-based raises as well as advancement planning.

**Who is entitled to benefit from these incentives?**

Environment/Sustainability manager

**Types of incentives**

Monetary reward

**Activity incentivized**

Energy reduction target

**Comment**

In 2018, the Corporate Responsibility team worked across Altria's operating companies and service company affiliates to track progress against our long-term environmental goals. These goals include by 2025: reducing Altria's Scope 1 and 2 emissions by 20%; cutting absolute energy use by 18%; reducing waste to landfill by 25%; and achieving 50% water neutrality across operations. In addition to these goals, in 2018 we set a goal to reduce absolute Scope 3 emissions by 15% by 2030 and formally committed to the Science Based Targets initiative. Driving progress against this goal will include ongoing engagement with our companies' suppliers going forward. The Corporate Responsibility team also engages with company employees to share progress against these goals, and encourages behavior change to help make continued progress, including education on proper waste management practices in our workspaces. This work was part of individual performance objectives for each member of the Corporate Responsibility team, formally set within Altria's Performance Partnership Process. Achievement of performance objectives is evaluated with each employee's supervisor as part of the annual performance review process; with achievement of objectives influencing merit-based raises as well as advancement planning.

**Who is entitled to benefit from these incentives?**

Environment/Sustainability manager

**Types of incentives**

Monetary reward

**Activity incentivized**

Behavior change related indicator

**Comment**

In 2018, the Corporate Responsibility team worked across Altria's operating companies and service company affiliates to track progress against our long-term environmental goals. These goals include by 2025: reducing Altria's Scope 1 and 2 emissions by 20%; cutting absolute energy use by 18%; reducing waste to landfill by 25%; and achieving 50% water neutrality across operations. In addition to these goals, in 2018 we set a goal to reduce absolute Scope 3 emissions by 15% by 2030 and formally committed to the Science Based Targets initiative. Driving progress against this goal will include ongoing engagement with our companies' suppliers going forward. The Corporate Responsibility team also engages with company employees to share progress against these goals, and encourages behavior change to help make continued progress, including education on proper waste management practices in our workspaces. This work was part of individual performance objectives for each member of the Corporate Responsibility team, formally set within Altria's Performance Partnership Process. Achievement of performance objectives is evaluated with each employee's supervisor as part of the annual performance review process; with achievement of objectives influencing merit-based raises as well as advancement planning.

**Who is entitled to benefit from these incentives?**

Other, please specify (Corporate Responsibility Team Staff)

**Types of incentives**

Monetary reward

**Activity incentivized**

Emissions reduction target

**Comment**

In 2018, the Corporate Responsibility team worked across Altria's operating and service companies to track progress against our long-term environmental goals. These goals include by 2025: reducing Altria's Scope 1 and 2 emissions by 20%; cutting absolute energy use by 18%; reducing waste to landfill by 25%; and achieving 50% water neutrality across operations. In addition to these goals, in 2018 we set a goal to reduce absolute Scope 3 emissions by 15% by 2030 and formally committed to the Science Based Targets initiative. Driving progress against this goal will include ongoing engagement with our companies' suppliers going forward. The Corporate Responsibility team also engages with company employees to share progress against our goals, and encourages behavior change to help make continued progress, including education on proper waste management practices in our workspaces. This work was part of individual performance objectives for each member of the Corporate Responsibility team, formally set within Altria's Performance Partnership Process. Achievement of performance objectives is evaluated with each employee's supervisor as part of the annual performance review process; with achievement of objectives influencing merit-based raises as well as advancement planning.

**Who is entitled to benefit from these incentives?**

Other, please specify (Corporate Responsibility Team Staff)

**Types of incentives**

Monetary reward

**Activity incentivized**

Energy reduction target

**Comment**

In 2018, the Corporate Responsibility team worked across Altria's operating and service companies to track progress against our long-term environmental goals. These goals include by 2025: reducing Altria's Scope 1 and 2 emissions by 20%; cutting absolute energy use by 18%; reducing waste to landfill by 25%; and achieving 50% water neutrality across operations. In addition to these goals, in 2018 we set a goal to reduce absolute Scope 3 emissions by 15% by 2030 and formally committed to the Science Based Targets initiative. Driving progress against this goal will include ongoing engagement with our companies' suppliers going forward. The Corporate Responsibility team also engages with company employees to share progress against our goals, and encourages behavior change to help make continued progress, including education on proper waste management practices in our workspaces. This work was part of individual performance objectives for each member of the Corporate Responsibility team, formally set within Altria's Performance Partnership Process. Achievement of performance objectives is evaluated with each employee's supervisor as part of the annual performance review process; with achievement of objectives influencing merit-based raises as well as advancement planning.

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**Who is entitled to benefit from these incentives?**

Other, please specify (Corporate Responsibility Team Staff)

**Types of incentives**

Monetary reward

**Activity incentivized**

Behavior change related indicator

**Comment**

In 2018, the Corporate Responsibility team worked across Altria's operating and service companies to track progress against our long-term environmental goals. These goals include by 2025: reducing Altria's Scope 1 and 2 emissions by 20%; cutting absolute energy use by 18%; reducing waste to landfill by 25%; and achieving 50% water neutrality across operations. In addition to these goals, in 2018 we set a goal to reduce absolute Scope 3 emissions by 15% by 2030 and formally committed to the Science Based Targets initiative. Driving progress against this goal will include ongoing engagement with our companies' suppliers going forward. The Corporate Responsibility team also engages with company employees to share progress against our goals, and encourages behavior change to help make continued progress, including education on proper waste management practices in our workspaces. This work was part of individual performance objectives for each member of the Corporate Responsibility team, formally set within Altria's Performance Partnership Process. Achievement of performance objectives is evaluated with each employee's supervisor as part of the annual performance review process; with achievement of objectives influencing merit-based raises as well as advancement planning.

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**Who is entitled to benefit from these incentives?**

All employees

**Types of incentives**

Monetary reward

**Activity incentivized**

Emissions reduction project

**Comment**

Various employees across Altria's operating and service companies help execute programs and projects which reduce enterprise-wide emissions, energy use and our overall environmental footprint. This work is part of individual performance objectives for employees involved in these programs and projects, and is formally set within Altria's Performance Partnership Process. Achievement of performance objectives is evaluated with each employee's supervisor as part of the annual performance review process, with achievement of objectives influencing merit-based raises as well as advancement planning. In addition to performance objectives, when employees help drive progress against programs and projects across Altria's businesses in innovative, creative and simplified ways, including projects benefiting our environmental footprint, they can be recognized through monetary rewards such as a Chairman's Award and within Altria's peer to peer recognition program.

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**Who is entitled to benefit from these incentives?**

All employees

**Types of incentives**

Monetary reward

**Activity incentivized**

Energy reduction project

**Comment**

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**Who is entitled to benefit from these incentives?**

All employees

**Types of incentives**

Monetary reward

**Activity incentivized**

Efficiency project

**Comment**

Various employees across Altria's operating and service companies help execute programs and projects which reduce enterprise-wide emissions, energy use and our overall environmental footprint. This work is part of individual performance objectives for employees involved in these programs and projects, and is formally set within Altria's Performance Partnership Process. Achievement of performance objectives is evaluated with each employee's supervisor as part of the annual performance review process, with achievement of objectives influencing merit-based raises as well as advancement planning. In addition to performance objectives, when employees help drive progress against programs and projects across Altria's businesses in innovative, creative and simplified ways, including projects benefiting our environmental footprint, they can be recognized through monetary rewards such as a Chairman's Award and within Altria's peer to peer recognition program.

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**Who is entitled to benefit from these incentives?**

All employees

**Types of incentives**

Monetary reward

**Activity incentivized**

Supply chain engagement

**Comment**

Various employees across Altria's operating and service companies help execute programs and projects which reduce enterprise-wide emissions, energy use and our overall environmental footprint. This work is part of individual performance objectives for employees involved in these programs and projects, and is formally set within Altria's Performance Partnership Process. Achievement of performance objectives is evaluated with each employee's supervisor as part of the annual performance review process, with achievement of objectives influencing merit-based raises as well as advancement planning. In addition to performance objectives, when employees help drive progress against programs and projects across Altria's businesses in innovative, creative and simplified ways, including projects benefiting our environmental footprint, they can be recognized through monetary rewards such as a Chairman's Award and within Altria's peer to peer recognition program.

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**Who is entitled to benefit from these incentives?**

All employees

**Types of incentives**

Recognition (non-monetary)

**Activity incentivized**

Emissions reduction project

**Comment**

Various employees across Altria's operating and service companies help execute programs and projects which reduce enterprise-wide emissions, energy use and our overall environmental footprint. When employees help drive progress against programs and projects across Altria's businesses in innovative, creative and simplified ways, including projects benefiting our environmental footprint, they can be recognized through non-monetary rewards within Altria's peer to peer recognition program.

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**Who is entitled to benefit from these incentives?**

All employees

**Types of incentives**

Recognition (non-monetary)

**Activity incentivized**

Energy reduction project

**Comment**

Various employees across Altria's operating and service companies help execute programs and projects which reduce enterprise-wide emissions, energy use and our overall environmental footprint. When employees help drive progress against programs and projects across Altria's businesses in innovative, creative and simplified ways, including projects benefiting our environmental footprint, they can be recognized through non-monetary rewards within Altria's peer to peer recognition program.

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**Who is entitled to benefit from these incentives?**

All employees

**Types of incentives**

Recognition (non-monetary)

**Activity incentivized**

Efficiency project

**Comment**

Various employees across Altria's operating and service companies help execute programs and projects which reduce enterprise-wide emissions, energy use and our overall environmental footprint. When employees help drive progress against programs and projects across Altria's businesses in innovative, creative and simplified ways, including projects benefiting our environmental footprint, they can be recognized through non-monetary rewards within Altria's peer to peer recognition program.

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**Who is entitled to benefit from these incentives?**

All employees

**Types of incentives**

Recognition (non-monetary)

**Activity incentivized**

Supply chain engagement

**Comment**

Various employees across Altria's operating and service companies help execute programs and projects which reduce enterprise-wide emissions, energy use and our overall environmental footprint. When employees help drive progress against programs and projects across Altria's businesses in innovative, creative and simplified ways, including projects benefiting our environmental footprint, they can be recognized through non-monetary rewards within Altria's peer to peer recognition program.

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## C2. Risks and opportunities

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### C2.1

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**(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.**

	From (years)	To (years)	Comment
Short-term	0	2	Altria's companies have participated in an annual planning and risk assessment process to assess risks and opportunities for both near and long-term horizons. Part of this process includes an Enterprise Risk Management (ERM) process which includes an evaluation of immediate risks related to strategy, operations, finance, & compliance, as well as potential emerging risks within 1 year, 1-2 year and greater than 2 year timeframes. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes, and evaluates work plans at least quarterly. Altria's Environmental Management Framework (EMF) helps guide this risk and opportunity assessment process with regard to climate change. With these processes in mind, we consider short-term climate related risks and opportunities in an immediate to 2 year time horizon.
Medium-term	3	6	Altria's companies have participated in an annual planning and risk assessment process to assess risks and opportunities for both near and long-term horizons. Part of this process includes an Enterprise Risk Management (ERM) process which includes an evaluation of immediate risks related to strategy, operations, finance, & compliance, as well as potential emerging risks within 1 year, 1-2 year and greater than 2 year timeframes. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes, and evaluates work plans at least quarterly. Altria's Environmental Management Framework (EMF) helps guide this risk and opportunity assessment process with regard to climate change. With these processes in mind, we consider medium-term climate related risks and opportunities in a 3 to 6 year time horizon.
Long-term	7	10	Altria's companies have participated in an annual planning and risk assessment process to assess risks and opportunities for both near and long-term horizons. Part of this process includes an Enterprise Risk Management (ERM) process which includes an evaluation of immediate risks related to strategy, operations, finance, & compliance, as well as potential emerging risks within 1 year, 1-2 year and greater than 2 year timeframes. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes, and evaluates work plans at least quarterly. Altria's Environmental Management Framework (EMF) helps guide this risk and opportunity assessment process with regard to climate change. With these processes in mind, we consider long-term climate related risks and opportunities in a 7 to 10 year time horizon.

**C2.2**

**(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.**

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

**C2.2a**

**(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.**

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Annually	>6 years	Risks are assessed on an ongoing basis in order to effectively anticipate changes that may impact Altria and its subsidiaries' businesses. Historically, Altria's companies have participated in an annual planning and risk assessment process to assess risks and opportunities for both near and long-term horizons. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes, and evaluates work plans at least quarterly. Altria's Environmental Management Framework (EMF) helps guide this risk and opportunity assessment process with regard to climate change.

**C2.2b**

**(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.**

The Enterprise Risk Management Process is a coordinated process to identify, prioritize and manage strategy, operations, finance, and compliance risks that could impede Altria's companies from meeting business objectives. The process focuses on several risk areas, including environmental hazards which could pose threats to business continuity. At an Altria Group, Inc. level, this process formalizes coordination of key risk reporting processes, improves information sharing between multiple risk assessment processes, and provides the CEO, his direct reports and Altria's Board of Directors an annual update. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes. Altria's Environmental Management Framework helps guide this assessment process with regard to climate change. In addition, Altria and its companies use several tools and processes to identify and manage financial and business risks including conducting external scans, scenario planning, and business continuity/crisis management activities.

When considering enterprise risks and opportunities, business areas consider the following:

- Strategy-Are there any events or occurrences that could significantly influence Altria's 3-year plan?
- Operations-Are there any events or occurrences that could inhibit/enhance a company's ability to produce, distribute, or market its products?
- Compliance-Are there any events or occurrences that could significantly inhibit/enhance a company's ability to comply with existing or proposed regulation?
- Other Enterprise Risks-Are there any other events or occurrences that could materially impact (positively/negatively) shareholder value?

Enterprise risks are evaluated based on:

**Likelihood**-The probability of an event occurring given the current business and processes, including mitigating factors. Risks are categorized as high, medium or low based on probability of occurrence.

**Impact**-The significance of an event occurring. Risks are classified into one of three levels of impact based on select dollar ranges of financial impact or severity of effect on strategy or reputation. If a risk has the potential to have a materially adverse effect on the business, the consolidated results of operations, cash flow or financial position of Altria and its subsidiaries, the risk would be considered substantive.

**Velocity**-The speed with which the adverse impact(s) of a risk is felt by a company after the risk event occurs. Risks are classified based on timeframe within which the event will impact the company.

Altria and its companies conduct annual external scans to identify emerging risks to the business, risk trends and risk management best practices.

We conduct scenario planning to identify the various uncertainties, including those around environmental regulations that will face our business in the next 5-10 years. We determine the potential scope and boundaries for each uncertainty to identify a range of potential outcomes including identifying potential implications & monitoring scenario development.

Crisis preparedness activities include an annual review, update, and testing of each of Altria's principal operating and service companies' business continuity, emergency response, and/or disaster recovery plans.

In 2017, a cross-functional team of Altria employees and external industry experts conducted a scenario analysis to explore how the supply of materials to manufacturers will evolve over the next decade. The desired outcome was to develop a long-term supply chain strategy for Altria's companies.

The team started by exploring the macro environment to identify trends and key uncertainties, including climate change, that could have substantial impacts on supply chains over the next 10 years, then considering how those trends could impact Altria. The team developed four possible scenarios which included assumptions about land and resource availability and environmental sustainability. Critical trends identified for Altria's supply chains included changes in technology, such as artificial intelligence and robotics; increased transparency supporting consumer and societal expectations; and flexibility to meet rapid changes in technology and consumer preference. The team identified key success factors to address these trends and conducted a gap analysis to evaluate where Altria is today compared to where we will need to be in the future.

As an outcome of this process, in 2018 we established a Procurement Center of Excellence and began focusing on developing flexible supply chain models that are sustainable, collaborative, secure, and provide a competitive advantage for Altria's companies. We are also leveraging data and transparency, and are evaluating emerging technologies to act on and share key insights through our supply chains.

**C2.2c**

**(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?**

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Altria assesses risks to the company through the use of an Enterprise Risk Management process. This coordinated process identifies risks relevant to organizational objectives on an ongoing, annual basis. It includes evaluation of immediate risks related to strategy, operations, finance, and compliance, as well as potential emerging risks within 1 year, 1-2 year and greater than 2 year timeframes. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes. Altria's Environmental Management Framework helps guide this risk and opportunity assessment process with regard to climate change. Altria is subject to laws and current regulations relating to the protection of the environment, including climate-related regulations around air emissions under the Clean Air Act in the regions where we operate. Altria and its companies operate and sell their products principally in the United States. Substantially all of Altria's net revenues are from sales generated in the United States. The locations of Altria and its operating companies' facilities include, but are not limited to Richmond, Virginia; Nashville, Tennessee; Hopkinsville, Kentucky, King of Prussia, Pennsylvania; Washington State, Oregon; and northern California. ALCS' Safety, Health and Environment team assesses risks around current climate-related regulations as part of the group's risk assessment processes, guided by Altria's Environmental Management Framework.
Emerging regulation	Relevant, always included	Altria assesses risks to the company through the use of an Enterprise Risk Management process. This coordinated process identifies risks relevant to organizational objectives on an ongoing, annual basis. It includes evaluation of immediate risks related to strategy, operations, finance, and compliance, as well as potential emerging risks within 1 year, 1-2 year and greater than 2 year timeframes. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5, 7 to 10 year timeframes. Altria's Environmental Management Framework helps guide this risk and opportunity assessment process with regard to climate change. Altria is subject to laws and regulations relating to the protection of the environment, including emerging climate-related regulations around air emissions and emerging carbon pricing systems, in the regions where we operate. Altria and its companies operate and sell their products principally in the United States. Substantially all of Altria's net revenues are from sales generated in the United States. The locations of Altria and its operating companies' facilities include, but are not limited to Richmond, Virginia; Nashville, Tennessee; Hopkinsville, Kentucky, King of Prussia, Pennsylvania; Washington state, Oregon; and northern California. Altria conducts scenario planning to identify the various uncertainties, including those around emerging environmental regulations that will face our business in the next 5-10 years. We determine the potential scope and boundaries for each uncertainty to identify a range of potential outcomes including identifying potential implications & monitoring scenario development. ALCS' Safety, Health and Environment team assesses risks around emerging climate-related regulations as part of the group's risk assessment processes, guided by Altria's Environmental Management Framework. This assessment process has helped mitigate emerging transition risks related to potential increases in greenhouse gas emissions pricing, through encouraging transition to lower-emissions technologies in our facilities, such as the replacement of coal-fired boilers with natural gas boilers at three manufacturing facilities in 2014, along with current, ongoing energy efficiency projects across various facilities.
Technology	Relevant, sometimes included	Altria assesses risks to the company through the use of an Enterprise Risk Management process. This coordinated process identifies risks relevant to organizational objectives on an ongoing, annual basis. It includes evaluation of immediate risks related to strategy, operations, finance, and compliance, as well as potential emerging risks within 1 year, 1-2 year and greater than 2 year timeframes. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes. Altria's Environmental Management Framework helps guide this risk and opportunity assessment process with regard to climate change. In 2017, a cross-functional team of Altria employees and external industry experts conducted a scenario planning process to explore how the supply of materials to manufacturers will evolve over the next decade. The desired outcome was to develop a long-term supply chain strategy for Altria's companies. The team started by exploring the macro environment to identify trends and key uncertainties, including climate change, that could have substantial impacts on supply chains over the next 10 years, then considering how those trends could specifically impact Altria. The team developed four possible scenarios which included assumptions about land and resource availability and environmental sustainability. Critical trends identified for Altria's supply chains included changes in technology; such as artificial intelligence and robotics; increased transparency supporting consumer and societal expectations; and flexibility to meet rapid changes in technology and consumer preference. The team identified key success factors to address these critical trends and conducted a gap analysis to evaluate where Altria is today compared to where our companies will need to be in the future. As an outcome of this process, in 2018 we established a Procurement Center of Excellence and began focusing on developing flexible supply chain models that are sustainable, collaborative, secure, and provide a competitive advantage for Altria's companies. We are also leveraging data and transparency, and are evaluating emerging technologies to act on and share key insights throughout our supply chains.
Legal	Relevant, always included	Altria assesses risks to the company through the use of an Enterprise Risk Management process. This coordinated process identifies risks relevant to organizational objectives on an ongoing, annual basis. It includes evaluation of immediate risks related to strategy, operations, finance, and compliance, as well as potential emerging risks within 1 year, 1-2 year and greater than 2 year timeframes. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes. Altria's Environmental Management Framework helps guide this risk and opportunity assessment process with regard to climate change. Altria is subject to laws and regulations relating to the protection of the environment in the regions where we operate such as regulations under the Clean Air Act and Clean Water Act. Altria and its companies operate and sell their products principally in the United States. Substantially all of Altria's net revenues are from sales generated in the United States. The locations of Altria and its operating companies' facilities include, but are not limited to Richmond, Virginia; Nashville, Tennessee; Hopkinsville, Kentucky, King of Prussia, Pennsylvania; Washington State, Oregon; and northern California. The Safety, Health and Environment team assesses legal risks as part of the group's regulatory risk assessment processes, guided by Altria's Environmental Management Framework.
Market	Relevant, sometimes included	Altria assesses risks to the company through the use of an Enterprise Risk Management process. This coordinated process identifies risks relevant to organizational objectives on an ongoing, annual basis. It includes evaluation of immediate risks related to strategy, operations, finance, and compliance, as well as potential emerging risks within 1 year, 1-2 year and greater than 2 year timeframes. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes. Altria's Environmental Management Framework helps guide this risk and opportunity assessment process with regard to climate change. In 2017, a cross-functional team of Altria employees and external industry experts conducted a scenario planning process to explore how the supply of materials to manufacturers will evolve over the next decade. The desired outcome was to develop a long-term supply chain strategy for Altria's companies. The team started by exploring the macro environment to identify trends and key uncertainties, including climate change, that could have substantial impacts on supply chains over the next 10 years, then considering how those trends could specifically impact Altria. The team developed four possible scenarios which included assumptions about land and resource availability and environmental sustainability. Critical trends identified for Altria's supply chains included changes in technology, such as artificial intelligence and robotics; increased transparency supporting consumer and societal expectations; and flexibility to meet rapid changes in technology and consumer preference. Climate-related market risks identified through this process included shifts in demand for agricultural commodities and future water resource restraints in water sensitive regions of the world. The team identified key success factors to address these critical trends and risks, and conducted a gap analysis to evaluate where Altria is today compared to where our companies will need to be in the future. As an outcome of this process, in 2018 we began focusing on developing flexible supply chain models that are sustainable, collaborative, secure, and provide a competitive advantage for Altria's companies.
Reputation	Relevant, always included	Altria assesses risks to the company through the use of an Enterprise Risk Management process. This coordinated process identifies risks relevant to organizational objectives on an ongoing, annual basis. It includes evaluation of immediate risks related to strategy, operations, finance, & compliance, as well as potential emerging risks within 1 year, 1-2 year and greater than 2 year timeframes. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes. Altria's Environmental Management Framework helps guide this risk and opportunity assessment process with regard to climate change. Altria has a Mission Strategy to drive positive change, through helping solve societal issues important to our businesses, stakeholders and communities. With this strategy in mind, we remain aware of societal expectations of our businesses regarding environmental-stewardship and transparency on climate-related issues. To help meet these expectations and manage reputational risks associated with inaction against them – such as negative media coverage - Altria's operating and service companies continue to focus on making progress against enterprise-wide long-term environmental goals. These goals include by 2025: reducing Altria's Scope 1 and 2 emissions by 20%; cutting absolute energy use by 18%; reducing waste to landfill by 25%; and achieving 50% water neutrality across operations. In addition to these goals, in 2018 we set a goal to reduce absolute Scope 3 emissions by 15% by 2030 and formally committed to the Science Based Targets initiative. Driving progress against this goal will include ongoing engagement with our companies' suppliers going forward. Altria also supports leading non-profit organizations, like National Fish and Wildlife Foundation, focused on water quality and conservation in our operating communities; sustainable agriculture in tobacco-growing regions; and nationwide cigarette litter prevention and clean-up. This strategic philanthropic focus, along with ongoing progress against our environmental goals allows us to continue to address societal expectations to reduce the environmental impacts of our businesses.
Acute physical	Relevant, always included	Altria assesses risks to the company through the use of an Enterprise Risk Management (ERM) process. This coordinated process identifies risks relevant to organizational objectives on an ongoing, annual basis. It includes evaluation of immediate risks related to strategy, operations, finance, and compliance, as well as potential emerging risks within 1 year, 1-2 year and greater than 2 year timeframes. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes. Altria's Environmental Management Framework helps guide this risk and opportunity assessment process with regard to climate change. On top of the ERM process, Altria conducts external scans, scenario planning, and business continuity/crisis management planning activities to help mitigate the potential impacts posed by acute physical risks including a natural or man-made disaster or other disruption that affects the manufacturing operations of any of Altria's tobacco subsidiaries. An example of how acute physical risks have been considered as part of this risk assessment process includes USSTC's decision to construct an additional manufacturing facility in 2015. USSTC's Hopkinsville, KY, and Nashville, TN facilities reside in regions of the United States prone to outbreaks of severe weather. Due to this acute physical risk potentially impacting business continuity, the decision was made to construct an additional manufacturing facility deemed outside of the same severe weather risk zones as these locations. This new facility provides the processing and manufacturing capabilities of USSTC's existing facilities, allowing for shifts in production to occur in the event of severe weather impacting another location. In addition, PM USA made a similar decision to construct a new warehouse complex in Virginia with the same goal of maintaining business continuity if severe weather were to impact its existing warehouse facilities.
Chronic physical	Relevant, always included	Altria assesses risks to the company through the use of an Enterprise Risk Management process. This coordinated process identifies risks relevant to organizational objectives on an ongoing, annual basis. It includes evaluation of immediate risks related to strategy, operations, finance, & compliance, as well as potential emerging risks within 1 year, 1-2 year and greater than 2 year timeframes. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes. Altria's Environmental Management Framework helps guide this risk and opportunity assessment process with regard to climate change. Altria's operating companies evaluate and manage chronic physical risks including changes in precipitation patterns and extreme variability in weather patterns in tobacco and wine grape growing regions, the same way Altria manages risk in other procured products and services, by having a diversified sourcing model that allows the purchase of these commodities from various sources. This approach accounts for changes in quality or quantity of raw materials due to variations in weather, among other factors. These chronic physical risks are also evaluated and mitigated through: Weekly monitoring of crop and weather reports; Good Agriculture Practices (GAP) assessments; and our Grower Representatives' ongoing relationships with our tobacco growers. GAP assessments are conducted annually to help ensure a sustainable tobacco leaf supply both in the United States and internationally.

	Relevance & inclusion	Please explain
Upstream	Relevant, always included	Altria assesses risks to the company through the use of an Enterprise Risk Management process. This coordinated process identifies risks relevant to organizational objectives on an ongoing, annual basis. It includes evaluation of immediate risks related to strategy, operations, finance, & compliance, as well as potential emerging risks within 1 year, 1-2 year and greater than 2 year timeframes. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes. Altria's Environmental Management Framework helps guide this risk and opportunity assessment process with regard to climate change. In 2017, a cross-functional team of Altria employees and external industry experts conducted a scenario planning process to explore how the supply of materials to manufacturers will evolve over the next decade. The desired outcome was to develop a long-term supply chain strategy for Altria's companies. The team started by exploring the macro environment to identify trends and key uncertainties, including climate change, that could have substantial impacts on supply chains over the next 10 years, then considering how those trends could specifically impact Altria. The team developed four possible scenarios which included assumptions about land and resource availability and environmental sustainability. Critical trends identified for Altria's supply chains included changes in technology; such as artificial intelligence and robotics; increased upstream and downstream value chain transparency supporting consumer and societal expectations of a responsible company; and flexibility to meet rapid changes in technology and consumer preference. To manage and address transparency within our supply chains, as well as plan for uncertainties surrounding future physical climate-related risks, in 2018 we began focusing on developing flexible supply chain models that support an evolving product portfolio, and a diversified sourcing model for tobacco, wine grapes and other procured products and services. Through leveraging the latest technologies in data management, supply chain integration and transparency, our companies can continue to meet consumer preferences and regulatory requirements, while effectively addressing upstream physical climate-related risks in the supply chain.
Downstream	Relevant, always included	Altria assesses risks to the company through an Enterprise Risk Management process. This coordinated process identifies risks relevant to organizational objectives on an ongoing, annual basis. It includes evaluation of immediate risks related to strategy, operations, finance, and compliance, as well as potential emerging risks within 1 year, 1-2 year and greater than 2 year timeframes. In addition, ALCS' Safety, Health and Environment team assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes. Altria's Environmental Management Framework helps guide this risk and opportunity assessment process with regard to climate change. In 2017, a cross-functional team of Altria employees and external industry experts conducted a scenario planning process to explore how the supply of materials to manufacturers will evolve over the next decade. The desired outcome was to develop a long-term supply chain strategy for Altria's companies. The team started by exploring the macro environment to identify trends and key uncertainties, including climate change, that could have substantial impacts on supply chains over the next 10 years, then considering how those trends could specifically impact Altria. The team developed four possible scenarios which included assumptions about resource availability and environmental sustainability. Critical trends for Altria's supply chains included changes in technology, such as artificial intelligence and robotics; increased upstream and downstream value chain transparency supporting consumer and societal expectations of a responsible company; and flexibility to meet rapid changes in technology and consumer preference. To manage and address transparency within our supply chains, and plan for uncertainties for future climate-related risks, including potential for increased GHG emissions pricing impacting downstream transportation and distribution costs for Altria's operating companies' tobacco and wine products, we are focusing on flexible supply chain models, and continue to evaluate and implement more efficient logistics practices. Through leveraging the latest technologies in data management and supply chain integration and transparency, our companies can continue to meet consumer preferences and regulatory requirements, while effectively addressing downstream climate-related risks in the supply chain.

## C2.2d

### (C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

The Enterprise Risk Management (ERM) Process is a coordinated process to identify, prioritize and manage strategy, operations (including operating company facilities and other company assets), finance, and compliance risks that could impede Altria and its companies from meeting business objectives. The process focuses on a number of risk areas, which includes environmental hazards which could pose threats to business continuity. At an Altria Group, Inc. level, this process formalizes coordination of key risk reporting processes, improves information sharing between multiple business risk assessment processes, and provides the CEO, his direct reports and Altria's Board of Directors an annual update. The ERM process identifies risks relevant to organizational objectives on an ongoing, annual basis. It includes evaluation of immediate risks related to strategy, operations, finance, & compliance, as well as potential emerging risks within 1 year, 1-2 year and greater than 2 year timeframes. ALCS' Safety, Health and Environment team also assesses risks and opportunities in 3 to 5 and 7 to 10 year timeframes. Altria's Environmental Management Framework (EMF) helps guide this risk and opportunity assessment process with regard to climate change.

In addition, Altria and its companies use several tools and processes to identify and manage financial and business risks including conducting external scans, scenario planning, and business continuity/crisis management activities.

Climate-related risks and opportunities are managed in line with the ERM process, with immediate and emerging risks and opportunities within 1 year, 1-2 year and greater than two year timeframes being given priority for mitigation and control. Depending on scale, management decisions to address the risk or opportunity can be made at an enterprise-level or business unit level.

For example, Altria's companies monitor climate-related physical risks to our direct operations, and tobacco and wine grape supply chains. Altria's tobacco operating companies use tobacco in their products. American-grown tobacco is purchased for PM USA's and USSTC's products. PM USA and JMC buy international tobacco leaf through third-party suppliers who purchase from farmers across the globe. The availability of tobacco at the price and quantity needed for these operating companies is at risk from changing weather conditions, including extreme precipitation situations such as; droughts in Malawi and Brazil, flooding in Turkey or hurricanes in the southeast United States. The quality and quantity of Ste. Michelle 's grape supply is influenced by precipitation extremes, drought and temperature extremes experienced on its more than 3,900 company-owned vineyard acres in Washington, California and Oregon. If prolonged periods of precipitation extremes, drought or temperature extremes were to occur, the ability to control levels of stress on grape vines could be impacted, potentially decreasing both quality and quantity of the wine grapes harvested in these areas. In order to manage these climate-related physical risks, Altria's companies maintain a diversified sourcing model at an enterprise-level that allows the purchase of tobacco and wine grapes from various sources. This approach accounts for changes in quality or quantity of raw materials due to both short-term and longer-term variations in weather, among other factors, and is a key component of business continuity planning.

We are also working to manage transition risks related to Scope 1 and Scope 2 GHG emissions - including risks related to the price of energy and emerging climate-related regulations identified by ALCS' Safety, Health and Environment team – by setting an ambitious enterprise-wide target of reducing absolute Scope 1 and Scope 2 emissions 20% by 2025, based on a 2015 baseline. Progress against this target has been driven by emissions reduction activities across Altria's operating companies, including replacing coal-fired boilers with natural gas boilers at three manufacturing facilities, along with ongoing energy-efficiency projects across various facilities, managed at a business unit level. The proactive approach of implementing these projects also manages transition risks of the cost to transition to lower emissions technologies in the future.

## 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**

Physical risk

**Primary climate-related risk driver**

Chronic: Changes in precipitation patterns and extreme variability in weather patterns

**Type of financial impact**

Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)

**Company- specific description**

The quality and quantity of Ste. Michelle 's grape supply is influenced by temperature extremes experienced on its more than 3,900 company-owned vineyard acres in Washington, California and Oregon. If prolonged periods of temperature extremes were to occur, the ability to control levels of stress on grape vines could be impacted, potentially decreasing both quality and quantity of the wine grapes harvested in these areas. Vineyard management strategy includes utilizing best management practices to mitigate the impacts of extreme heat, including increasing watering during warm temperature anomalies. Doing so reduces heat damage which can adversely affect grape quality. When temperatures hover around freezing, some vineyards will utilize wind machines to keep the ambient temperature above freezing around grapes susceptible to topographic pockets of cold air. To help determine when to increase watering during instances of extreme heat, and when to operate fans during cold spells on vineyards, vineyard management teams will check grape, vine and soil samples and utilize infrared mapping technologies to identify sections of vineyard under stress. In addition to these on-vineyard management methods, vineyard management teams will consult seasonal forecast resources and long- term weather models to help plan resource allocation for the coming growing season.

**Time horizon**

Short-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium-low

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

No, we do not have this figure

**Potential financial impact figure (currency)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

Supply shortages could increase production costs and wine prices, which ultimately may have a negative impact on Ste. Michelle's sales. Additionally, decreased quality and quantities of grapes could lead to decreased revenues as wine production and wine quality could be impacted.

**Management method**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon and maintains contracts for grapes from long-term grape-growers on over 29,000 acres. If grape quality and/or quantity on company-owned acreage in Washington, California or Oregon were to be impacted by temperature extremes, Ste. Michelle could leverage its relationship with these contract growers to mitigate potential losses from damaged grape crop. As part of our risk management processes, risks driven by changes in precipitation patterns and variability in weather patterns are considered as an ongoing aspect of organization-wide operations. Additionally, in 2017, Altria conducted a comprehensive water risk assessment to examine physical, regulatory, and reputational water risks to Altria's companies' direct operations and their value chains. This risk assessment utilized climate-related scenario analysis to determine changes in water stress by 2030, and included chronic physical risks from changes in precipitations patterns and variability in weather patterns. The cost of management figure reported represents the cost to conduct this risk assessment.

**Cost of management**

43195

**Comment**

**Identifier**

Risk 2

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Physical risk

**Primary climate-related risk driver**

Chronic: Changes in precipitation patterns and extreme variability in weather patterns

**Type of financial impact**

Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)

**Company- specific description**

The quality and quantity of Ste. Michelle's grape supply is influenced by precipitation extremes and drought experienced on its more than 3,900 company-owned vineyard acres in Washington, California and Oregon. If prolonged periods of precipitation extremes and drought were to occur, the ability to control levels of stress on grape vines could be impacted, potentially decreasing both quality and quantity of the wine grapes harvested in these areas. While water is necessary for production, Ste. Michelle works to reduce water usage on its vineyards and wineries, treat or reuse water consumed, and partner with others to conserve water in its communities, while protecting biodiversity. These innovative efficiency efforts on Ste. Michelle's more than 3,900 company-owned acres in Washington, California and Oregon include; conservation of hot water and increased efficiency of tank heating systems, re-use of winery grey water, use of water-conserving nozzles on hoses, implementation of enhanced heat exchangers which reduce water needs in fermentation cellars, employee education on water conservation, and maintenance of water-efficient landscaping. As part of vineyard and winery management strategy and best management practices, vineyard management teams will consult seasonal weather forecast models to help plan resource allocation for the coming growing season, while monitoring grape, vine and soil samples, and infrared mapping technologies to identify sections of vineyard under stress during prolonged periods of precipitation extremes and drought.

**Time horizon**

Short-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium-low

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

No, we do not have this figure

**Potential financial impact figure (currency)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

Supply shortages could increase production costs and wine prices, which ultimately may have a negative impact on Ste. Michelle's sales. Additionally, decreased quality and quantities of grapes could lead to decreased revenues as wine production and wine quality could be impacted.

**Management method**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon and maintains contracts for grapes from long-term grape-growers on over 29,000 acres. If grape quality and/or quantity on company-owned acreage in Washington, California or Oregon were to be impacted by precipitation extremes, Ste. Michelle could leverage its relationship with these contract growers to mitigate potential losses from damaged grape crop. As part of our risk management processes, risks driven by changes in precipitation patterns and variability in weather patterns are considered as an ongoing aspect of organization-wide operations. Additionally, in 2017, Altria conducted a comprehensive water risk assessment to examine physical, regulatory, and reputational water risks to Altria's companies' direct operations and their value chains. This risk assessment utilized climate-related scenario analysis to determine changes in water stress by 2030, and included chronic physical risks from changes in precipitations patterns and variability in weather patterns. The cost of management figure reported represents the cost to conduct this risk assessment.

**Cost of management**

43195

**Comment**

**Identifier**

Risk 3

**Where in the value chain does the risk driver occur?**

Supply chain

**Risk type**

Physical risk

**Primary climate-related risk driver**

Acute: Increased severity of extreme weather events such as cyclones and floods

**Type of financial impact**

Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)

**Company- specific description**

Altria's tobacco operating companies use tobacco in their products. American-grown tobacco is purchased for PM USA's and USSTC's products. PM USA and JMC buy international tobacco leaf through third-party suppliers who purchase from farmers across the globe. The availability of tobacco at the price and quantity needed for these operating companies is at risk from changing weather conditions, including extreme precipitation situations such as; droughts in Malawi and Brazil, flooding in Turkey or hurricanes in the southeast United States. Altria's operating companies manage risks driven by changes in the severity of extreme weather events the same way Altria manages risk in other procured products and services, by having a flexible, diversified sourcing model that allows the purchase of tobacco from various sources. This approach accounts for changes in quality or quantity of raw materials due to variations in weather, among other factors.

**Time horizon**

Medium-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

0

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

Altria's operating companies maintain a flexible, diversified sourcing model that allows the purchase of tobacco from various sources. In the event of a severe weather event impacting the quality or quantity of tobacco leaf purchased from a specific region, operating costs could increase due to potentially higher pricing of tobacco sourced from the impacted region. However, if this situation were to occur, Altria's operating companies would adjust their sourcing model as part of business continuity plans, with no material financial impact experienced, as tobacco would be purchased from another region not impacted by quality, quantity or pricing fluctuations.

**Management method**

Risk mitigation practices supporting our approach to maintaining a flexible, diversified sourcing model include; Weekly monitoring of crop and weather reports; Good Agriculture Practices (GAP) assessments; and our Grower Representatives' ongoing relationships with our direct contracted growers. GAP assessments are conducted at and established frequency to help ensure a sustainable tobacco leaf supply both in the United States and internationally. GAP assessments provide direct feedback to growers on their compliance with practices related to crop, environment and labor management, and areas they may need to improve to meet our expectations. In 2018, we continued year two of a three-year assessment cycle during which all of our contracted growers will be assessed at least once, and growers with findings will be reassessed again the following year. In 2018, these assessments covered approximately one-third of our total grower base. As part of our risk management processes, risks driven by changes in the severity of extreme weather events are considered as an ongoing aspect of organization-wide operations and business continuity planning. Administration of business continuity plans is estimated at around \$100,000.

**Cost of management**

100000

**Comment****Identifier**

Risk 4

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Policy and legal: Increased pricing of GHG emissions

**Type of financial impact**

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

**Company- specific description**

Altria is subject to laws and regulations relating to the protection of the environment in the regions where we operate. Altria and its companies operate and sell their products principally in the United States. Substantially all of Altria's net revenues are from sales generated in the United States. The locations of Altria and its operating companies' facilities include, but are not limited to Richmond, Virginia; Nashville, Tennessee; Hopkinsville, Kentucky; King of Prussia, Pennsylvania; Washington state; Oregon; and California. If greenhouse gas emissions pricing, including but not limited to a carbon tax or cap and trade system were to be implemented in these locations where Altria's companies maintain operations, operating costs could potentially increase. Altria's operating companies are working to manage transition risks related to Scope 1 and Scope 2 GHG emissions - including risks related to the prices of energy, greenhouse gases and regulations – by setting an ambitious enterprise-wide target of reducing absolute Scope 1 and Scope 2 emissions 20% by 2025, based on a 2015 baseline.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Low

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

0

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

Increases in greenhouse gas emissions pricing resulting in potential increases in operating costs, are not expected to have a material adverse effect on Altria's consolidated results of operations, capital expenditures, financial position or cash flows due to ongoing activities across our operating companies to reduce Scope 1 and Scope 2 greenhouse gas emissions. Emissions reduction activities are part of enterprise-wide, long-term environmental goals to reduce absolute Scope 1 and Scope 2 emissions 20% by 2025 against a 2015 baseline.

**Management method**

Progress against our Scope 1 and Scope 2 greenhouse gas emissions target has been driven by emissions reduction activities across Altria's operating companies, including PM USA's and USSTC's conversion of boilers at three total manufacturing facilities from coal to natural gas, along with ongoing energy-efficiency projects across various facilities. To date, emissions reduction activities have helped contribute to an over 15 percent reduction in Scope 1 and Scope 2 emissions against our baseline, and around \$1.6 million in annual energy and maintenance cost savings to our operating companies. The proactive approach to implementing these projects additionally manages transition risks related to costs to transition to lower emissions technologies in the future. Altria's operating companies replaced coal-fired boilers with natural gas boilers at three of our manufacturing facilities. This conversion was completed in 2014 with a project cost of \$29,500,000 and an estimated annual savings of \$3,200,000.

While the conversion from coal to natural gas helped the company meet some compliance requirements, the decision to convert fuels rather than mitigate emission through other means was voluntarily made to further reduce the company's environmental impacts and reduce long-term operational costs, including those related to potential increases in future greenhouse gas emissions pricing.

**Cost of management**

29500000

**Comment**

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C2.4

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**(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

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

**Identifier**

Opp1

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

Direct operations

**Opportunity type**

Resource efficiency

**Primary climate-related opportunity driver**

Move to more efficient buildings

**Type of financial impact**

Reduced operating costs (e.g., through efficiency gains and cost reductions)

**Company-specific description**

Altria assesses opportunities and implements projects through the use of an Enterprise Risk Management (ERM) process. This is a coordinated process to identify opportunities relevant to an organization's objectives. It typically includes evaluation of opportunities related to strategy, operations, finance, and compliance. Guided by this process, annual planning and with a focus on making progress against enterprise-wide long-term environmental goals, Altria's operating companies and service companies evaluate and implement projects that have the potential to make our direct operations more resource efficient on an ongoing basis. These goals include by 2025: reducing Altria's Scope 1 and 2 emissions by 20%; cutting absolute energy use by 18%; reducing waste to landfill by 25%; and achieving 50% water neutrality across operations. In addition to these goals, in 2018 we set a goal to reduce absolute Scope 3 emission by 15% by 2030. Projects that drive progress against these goals include but are not limited to retrofitting lighting fixtures at operating company facilities to more efficient technologies such as LED; optimizing set-points for refrigeration systems; replacing outdated HVAC units; and reducing manufacturing waste and water consumption.

**Time horizon**

Current

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium-low

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

1600000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

Several projects focused on resource efficiency are currently underway, including more efficient energy usage in company facilities. One of these projects, a lighting retrofit at a PM USA manufacturing facility is estimated to provide annual monetary savings of approximately \$1,400,000 in energy costs and \$200,000 in maintenance costs. Based on a multi-year project schedule, PM USA has estimated around a 6 to 8 year payback period for this project.

**Strategy to realize opportunity**

Guided by the Enterprise Risk Management process, annual planning and a focus on making progress against enterprise-wide long-term environmental goals, Altria's operating and service companies continue to evaluate and implement projects that have the potential to make our direct operations more resource efficient on an ongoing basis. Beginning in 2015, PM USA began this lighting retrofit project at one of its manufacturing facilities with the goal of reducing energy-related operating costs and making progress against enterprise-wide long-term environmental goals. This project is expected to take several years to complete but is estimated to offer around \$1,600,000 in combined energy and maintenance cost savings annually. The cost to realize this opportunity of \$8,700,000 represents the investment to implement the lighting retrofit project.

**Cost to realize opportunity**

8700000

**Comment**

---

**Identifier**

Opp2

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

Supply Chain

**Opportunity type**

Resource efficiency

**Primary climate-related opportunity driver**

Use of more efficient production and distribution processes

**Type of financial impact**

Reduced operating costs (e.g., through efficiency gains and cost reductions)

**Company-specific description**

Altria assesses opportunities and implements projects through the use of an Enterprise Risk Management (ERM) process. This is a coordinated process to identify opportunities relevant to an organization's objectives. It typically includes evaluation of opportunities related to strategy, operations, finance, and compliance. Guided by this process, annual planning and with a focus on making progress against enterprise-wide long-term environmental goals, Altria's operating and service companies evaluate and implement projects that have the potential to make our operations and supply chain more resource efficient on an ongoing basis. These goals include by 2025: reducing Altria's Scope 1 and 2 emissions by 20%; cutting absolute energy use by 18%; reducing waste to landfill by 25%; and achieving 50% water neutrality across operations. In addition to these goals, in 2018 we set a goal to reduce absolute Scope 3 emission by 15% by 2030. Projects that drive progress against these goals can include the implementation of efficient logistics practices as well as the evaluation of more fuel-efficient vehicles for use within Altria's companies' production and distribution processes.

**Time horizon**

Medium-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium-low

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

568000

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

Altria's operating and service companies are evaluating current and emerging technologies in vehicle efficiency for potential use within our direct operations and value chain. These technologies, including alternative fuel vehicles, have the potential to provide cost savings and emissions reductions over time. The potential financial impact of implementing these emerging technologies is currently being evaluated, and has the potential to be cost neutral with presently utilized vehicles. Additionally, one of Altria's operating companies is in the process of implementing more efficient logistics processes with the potential to provide both emissions and cost reduction over the next several years. Potential financial savings in fuel costs from more efficient logistics processes is estimated at around \$568,000 based on the national average diesel fuel costs from the U.S. Energy Information Administration.

**Strategy to realize opportunity**

Guided by the Enterprise Risk Management process, annual planning and a focus on making progress against enterprise-wide long-term environmental goals, Altria's operating companies and service companies continue to evaluate and implement projects that have the potential to make our operations and supply chain more resource efficient on an ongoing basis. In addition to evaluating ROI calculations as part of the strategy to potentially implement technologies in vehicle efficiency into our operations and value chain, any alternative fuel vehicle would first be part of a pilot program to determine the actual feasibility of long-term utilization of the technology. If successful, the pilot program would make way to more widespread utilization across Altria's operations and/or value chain. The cost to realize this opportunity of \$4,400,000 represents the estimated cost of diesel fuel still consumed in logistics processes, based on the national average diesel fuel costs from the U.S. Energy Information Administration.

**Cost to realize opportunity**

4400000

**Comment****Identifier**

Opp3

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

Direct operations

**Opportunity type**

Energy source

**Primary climate-related opportunity driver**

Use of lower-emission sources of energy

**Type of financial impact**

Reduced exposure to future fossil fuel price increases

**Company-specific description**

Altria assesses opportunities and implements projects through the use of an Enterprise Risk Management (ERM) process. This is a coordinated process to identify opportunities relevant to an organization's objectives. It typically includes evaluation of opportunities related to strategy, operations, finance, and compliance. If biomass sourced power generation expands over the long term, Altria's companies may find that spent material from grape processing at Ste. Michelle's facilities in Washington, Oregon and California could be used as a feed stock for these power plants. Additionally, if tax credits/incentives continue to be available for renewable energy development opportunities both on-site, and through tools such as power purchase agreements, Altria and its companies could pursue such options to offset organization-

wide energy consumption in the future.

**Time horizon**

Long-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium-low

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

0

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

By investing in renewable energy opportunities, there is the potential that Altria's operating costs associated with energy consumption could be reduced over time. Depending on the type of renewable energy pursued, there may be the opportunity over time to see revenues from the sale of energy to the grid. Such technology would likely require an up-front investment, a favorable regulatory environment and energy market, and have cost benefits and/or revenues accruing over time. At this time, we have not determined an estimated financial impact of this opportunity to be greater than \$0, due to current variability in the regulatory environment and energy markets in the regions where we operate.

**Strategy to realize opportunity**

In 2018, Altria's operating and service companies evaluated renewable energy opportunities available to the enterprise, but determined that no immediate options existed for investment with a favorable ROI to be implemented within the reporting year. As energy regulations and markets continue to evolve at both a national and local-level in relation to company operating locations, there may be future opportunities for renewable energy investment. Altria's operating and service companies are continuing to monitor such opportunities on an ongoing basis, with the goal of potentially reducing enterprise-wide Scope 2 emissions and mitigating transition risks related to potential future increases in greenhouse gas emissions pricing. The cost to realize opportunity of \$7,500,000 represents an estimated potential financial investment required to pursue renewable energy opportunities for select Altria operating company locations, based on the current regulatory environment and energy markets in the regions where we operate.

**Cost to realize opportunity**

7500000

**Comment**

C2.5

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

	Impact	Description
Products and services	Not impacted	Physical risks, including risk related to an increased severity of extreme weather events and changes in precipitation patterns and extreme variability in weather patterns, have not impacted Altria's operating companies' products. Altria's operating companies maintain a flexible, diversified sourcing model that allows the purchase of tobacco leaf and wine grapes necessary for operations from various sources. In the event of an acute severe weather occurrence or longer-term changes in precipitation patterns or extreme variability of weather patterns impacting the quality or quantity of tobacco leaf or wine grapes from a specific region, Altria's operating companies would adjust their sourcing model as part of business continuity plans, with no material business impact experienced.
Supply chain and/or value chain	Impacted for some suppliers, facilities, or product lines	Physical risks, including risks related to an increased severity of extreme weather events, have impacted some of Altria's operating companies' suppliers. Altria's tobacco operating companies use tobacco in their products. American-grown tobacco is purchased for PM USA's and USSTC's products. PM USA and JMC buy international tobacco leaf through third-party suppliers who purchase from farmers across the globe. The availability of tobacco at the price and quantity needed for these operating companies is at risk from changing weather conditions, including extreme precipitation situations such as droughts in Malawi and Brazil, flooding in Turkey or hurricanes in the southeast United States. Altria's operating companies maintain a flexible, diversified sourcing model that allows the purchase of tobacco leaf and wine grapes necessary for operations from various sources. In past instances of an acute severe weather event impacting the quality or quantity of tobacco leaf or wine grapes from a specific region, Altria's operating companies have adjusted their sourcing model as part of business continuity plans, with no material business impact experienced.
Adaptation and mitigation activities	Impacted for some suppliers, facilities, or product lines	Physical risks, including risk related to an increased severity of extreme weather events and changes in precipitation patterns and extreme variability in weather patterns, have not impacted Altria's operating companies' products. Altria's operating companies maintain a flexible, diversified sourcing model that allows the purchase of tobacco leaf and wine grapes necessary for operations from various sources. In the event of an acute severe weather occurrence or longer-term changes in precipitation patterns or extreme variability of weather patterns impacting the quality or quantity of tobacco leaf or wine grapes from a specific region, Altria's operating companies would adjust their sourcing model as part of business continuity plans, with no material business impact experienced. Additionally, to mitigate the risk of an extreme weather event impacting direct operations, USSTC made the decision to construct an additional manufacturing facility in 2015. USSTC's Hopkinsville, KY, and Nashville, TN facilities reside in regions of the United States prone to outbreaks of severe weather. Due to this risk, the decision was made to construct an additional manufacturing facility deemed outside of the same severe weather risk zones as these locations. This new facility provides the processing and manufacturing capabilities of USSTC's existing facilities, allowing for shifts in production to occur in the event of severe weather impacting another location. In addition, PM USA made a similar decision to construct a new warehouse complex in Virginia with the same goal of maintaining business continuity if severe weather were to impact its existing warehouse facilities. Although capital expenditures were made to invest in these additional facilities, the benefits of maintaining business continuity outweigh the cost impacts from potential business disruption due to severe weather impacting our direct operations.
Investment in R&D	Not impacted	Physical and regulatory climate-related risks and opportunities have not impacted product-related investment in research and development for any of Altria's operating companies' products. Investments in emissions reduction activities by our operating companies, as well as the evaluation of renewable energy technologies and the use of more efficient production and distribution processes are not classified as R&D by Altria's operating and service companies.
Operations	Impacted for some suppliers, facilities, or product lines	In order to mitigate transition risks from potential increases in pricing of GHG emissions, Altria's companies have implemented numerous emissions reduction projects as part of enterprise-wide, long-term environmental goals to reduce Scope 1 and Scope 2 emissions. One of the more substantial decisions impacting company operations to mitigate this risk includes the replacement of coal-fired boilers with natural gas boilers at three manufacturing facilities located in Richmond, VA and Nashville, TN, in 2014, along with current, ongoing energy-efficiency projects across various facilities. These projects can include but are not limited to retrofitting lighting fixtures at operating company facilities to more efficient technologies such as LED; optimizing set-points for refrigeration systems; replacing outdated HVAC units; and reducing manufacturing waste and water consumption. The proactive approach to implementing these projects additionally manages transition risks related to costs to transition to lower emissions technologies in the future, and provides Altria's companies the opportunity to move towards more resource efficient facilities over the coming years. Through this management approach, the overall potential impact of these transition risks to Altria's operating companies is considered to be low.
Other, please specify	Please select	

**(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.**

	Relevance	Description
Revenues	Not impacted	Physical risks, including risk related to an increased severity of extreme weather events and changes in precipitation patterns and extreme variability in weather patterns, have not impacted Altria's operating companies' revenues. Altria's operating companies maintain a flexible, diversified sourcing model that allows the purchase of tobacco leaf and wine grapes necessary for operations from various sources. In the event of an acute severe weather occurrence or longer-term changes in precipitation patterns or extreme variability of weather patterns impacting the quality or quantity of tobacco leaf or wine grapes from a specific region, Altria's operating companies would adjust their sourcing model as part of business continuity plans, with no material financial planning impact experienced.
Operating costs	Impacted for some suppliers, facilities, or product lines	In order to mitigate transition risks from potential increases in pricing of GHG emissions, Altria's companies have implemented numerous emissions reduction projects as part of enterprise-wide, long-term environmental goals to reduce Scope 1 and Scope 2 emissions. One of the more substantial decisions to mitigate this risk which impacts company operating costs includes the replacement of coal-fired boilers with natural gas boilers at three manufacturing facilities located in Richmond, VA and Nashville, TN, in 2014, along with current, ongoing energy-efficiency projects across various facilities. These projects can include but are not limited to retrofitting lighting fixtures at operating company facilities to more efficient technologies such as LED; optimizing set-points for refrigeration systems; replacing outdated HVAC units; and reducing manufacturing waste and water consumption. The proactive approach to implementing these projects additionally manages transition risks related to costs to transition to lower emissions technologies in the future, and provides Altria's companies the opportunity to move towards more resource efficient facilities over the coming years. Due to inclusion of operating costs in project ROI calculations, as well as the cost savings and emissions reduction benefits of implementing these projects, the overall magnitude of impact of these transition risks on financial planning is considered low.
Capital expenditures / capital allocation	Impacted for some suppliers, facilities, or product lines	In order to mitigate transition risks from potential increases in pricing of GHG emissions, Altria's companies have implemented numerous emissions reduction projects as part of enterprise-wide, long-term environmental goals to reduce Scope 1 and Scope 2 emissions. One of the more substantial decisions to mitigate this risk which impacts capital expenditures includes the replacement of coal-fired boilers with natural gas boilers at three manufacturing facilities located in Richmond, VA and Nashville, TN, in 2014, along with current, ongoing energy-efficiency projects across various facilities. These projects can include but are not limited to retrofitting lighting fixtures at operating company facilities to more efficient technologies such as LED; optimizing set-points for refrigeration systems; replacing outdated HVAC units; and reducing manufacturing waste and water consumption. The proactive approach to implementing these projects additionally manages transition risks related to costs to transition to lower emissions technologies in the future, and provides Altria's companies the opportunity to move towards more resource efficient facilities over the coming years. Due to the inclusion of capital expenditures in ROI calculations, as well as the cost savings and emissions reduction benefits of implementing these projects, the overall magnitude of impact of these transition risks on financial planning is considered low.
Acquisitions and divestments	Not impacted	Physical and regulatory climate-related risks and opportunities have not impacted Altria's operating or service companies' acquisition or divestment decisions. Investments in emissions reduction activities by our operating companies, as well as the evaluation of renewable energy technologies and the use of more efficient production and distribution processes has not been attributable to any acquisitions or divestment.
Access to capital	Not impacted	Physical and regulatory climate-related risks and opportunities have not impacted Altria's operating or service companies' access to capital. Investments in emissions reduction activities by our operating companies, as well as the evaluation of renewable energy technologies and the use of more efficient production and distribution processes has not influenced operating company or service company affiliate's access to capital.
Assets	Impacted for some suppliers, facilities, or product lines	In order to mitigate transition risks from potential increases in pricing of GHG emissions, Altria's companies have implemented numerous emissions reduction projects as part of enterprise-wide, long-term environmental goals to reduce Scope 1 and Scope 2 emissions. One of the more substantial decisions to mitigate this risk which impacts company assets includes the replacement of coal-fired boilers with natural gas boilers at three manufacturing facilities located in Richmond, VA and Nashville, TN, in 2014, along with current, ongoing energy-efficiency projects across various facilities. These projects can include but are not limited to retrofitting lighting fixtures at operating company facilities to more efficient technologies such as LED; optimizing set-points for refrigeration systems; replacing outdated HVAC units; and reducing manufacturing waste and water consumption. The proactive approach to implementing these projects additionally manages transition risks related to costs to transition to lower emissions technologies in the future, and provides Altria's companies the opportunity to move towards more resource efficient facilities over the coming years. Due to the inclusion of impacts on assets in ROI calculations, as well as the cost savings and emissions reduction benefits of implementing these projects, the overall magnitude of impact of these transition risks on financial planning is considered low.
Liabilities	Impacted for some suppliers, facilities, or product lines	In order to mitigate transition risks from increases in pricing of GHG emissions, Altria's companies have implemented numerous emissions reduction projects as part of enterprise-wide, long-term environmental goals to reduce Scope 1 and Scope 2 emissions. One of the more substantial decisions to mitigate this risk which impacts company liabilities includes the replacement of coal-fired boilers with natural gas boilers at three manufacturing facilities located in Richmond, VA and Nashville, TN, in 2014, along with current, ongoing energy-efficiency projects across various facilities. These projects can include but are not limited to retrofitting lighting fixtures at operating company facilities to more efficient technologies such as LED; optimizing set-points for refrigeration systems; replacing outdated HVAC units; and reducing manufacturing waste and water consumption. The proactive approach to implementing these projects additionally manages transition risks related to costs to transition to lower emissions technologies in the future, and provides Altria's companies the opportunity to move towards more resource efficient facilities over the coming years. The impact of managing these transition risks on the financial planning process has not been substantive, as impacts on company liabilities associated with these projects are considered as part of ROI calculations in project planning activities, with the majority of projects offering year over year cost savings as well as long-term emissions reductions. Due to the inclusion of impacts on liabilities in ROI calculations, as well as the cost savings and emissions reduction benefits of implementing these projects, the overall magnitude of impact of these transition risks on financial planning is considered low.
Other	Please select	

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

Yes

**C3.1a****(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?**

Yes, qualitative

C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b

**(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.**

Yes

**(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.**

## A Commitment to Responsibility

Altria and its operating companies take a long-term approach to achieving their goals. This approach has helped make us the leader in the tobacco industry for more than 30 years. Responsibility is core to our Mission, which guides our businesses and communicates our priorities. As part of our Mission Strategy to Drive Positive Change, our companies seek to help solve societal issues important to our business, stakeholders and communities, including issues stemming from climate change.

Below are some examples of how climate change is integrated into our Mission Strategy;

- (i) We utilize an Environmental Management Framework (EMF) to influence our business strategy to address environmental impacts, including those impacts associated with climate change. The Environmental Management Framework includes expectations of employees that are communicated through Altria's Code of Conduct, and expectations of suppliers that are communicated through Altria's Supplier Code of Conduct. The framework is supported by elements and processes that include the following: Management Guidance, Actions and Implementations, Review and Feedback and Measurement. Management Guidance includes Altria's enterprise-wide long-term environmental goals. Through an organization-wide commitment to make progress against these goals, operating companies include progress against emissions, energy and waste reduction activities, as well as water stewardship as part of annual plans. As a part of the EMF our Chief Financial Officer, who is the sponsor of Altria's long-term environmental goals, receives periodic updates on our companies' progress against their goals and they provide direction to help our companies advance our Mission Strategy.
- (ii) Several aspects of climate change have and will likely continue to influence our business strategies. Altria's tobacco and wine operating companies rely on agricultural products, and we understand the effect that nature, including changes to our climate may have on our businesses. Additionally, we understand that natural disasters may have an impact on our companies' facilities and their supply chains. We are also aware of and responsive to the regulatory elements related to climate change. An example of how the potential for natural disasters have influenced our business strategy includes USSTC's decision to construct an additional manufacturing facility in 2015. USSTC's Hopkinsville, KY, and Nashville, TN facilities reside in regions of the United States prone to outbreaks of severe weather. Due to this risk, the decision was made to construct an additional manufacturing facility deemed outside of the same severe weather risk zones as these locations. This new facility provides the processing and manufacturing capabilities of USSTC's existing facilities, allowing for shifts in production to occur in the event of severe weather impacting another location, and began operating in 2016. In addition, PM USA made a similar decision to construct a new warehouse complex in Virginia with the same goal of maintaining business continuity if severe weather were to impact its existing warehouse facilities.
- (iii) Currently, our companies are working against enterprise-wide 2025 environmental goals in the areas of greenhouse gas emissions, energy use, water sustainability and waste reduction. We are working to reduce risks related to Scope 1 and Scope 2 GHG emissions - including risks related to the price of energy and regulations - by setting an ambitious target of reducing our combined Scope 1 and Scope 2 emissions by 20% based on a 2015 baseline. Through 2018, we have been successful in reducing our Scope 1 and Scope 2 emissions by 15.3% driven by emissions reduction activities across our businesses, including facility lighting retrofits and other operational efficiencies.
- (iv) Longer-term, we are working to understand our environmental impacts and opportunities beyond our facilities. This work includes data gathering and analysis of Altria's Scope 3 greenhouse gas inventory, working with our supply chain to improve Good Agricultural Practices which in part focus on reducing environmental impacts, and continuing to monitor the evolution of alternative and renewable forms of energy generation. In establishing our 2025 long-term environmental goals, best practices and resources from the Science Based Targets initiative were considered when setting Altria's greenhouse gas emissions reduction target. Additionally, in 2018 we set a goal to reduce absolute Scope 3 emissions by 15% by 2030 and formally committed to the Science Based Targets initiative. By aligning our emissions goals with science-based targets methodology, we hope to do our part in reducing the global impacts of climate change brought on by a 2-degrees Celsius warming scenario.
- (v) Our work on reducing environmental impacts provides our companies with the opportunity to reduce the cost associated with operating their businesses. One of the most substantial business decisions made by our operating companies in the reporting year has been the ongoing implementation of a lighting retrofit at one of PM USA's manufacturing facilities. This retrofit project is estimated to provide annual monetary savings of approximately \$1.4MM in energy costs and \$0.2MM in maintenance costs which frees up resources to invest in other area of the business. Based on a multi-year project schedule, PM USA has estimated around a 6-8 year payback period for this initiative. On top of helping achieve our long-term emissions reduction goals, moving to more energy efficient technologies in our facilities has the potential to mitigate emerging transition risks related to future increases in greenhouse gas emissions pricing. Reducing our cost base is one of the elements that allows us to compete more effectively in the marketplace.

**(C3.1d) Provide details of your organization’s use of climate-related scenario analysis.**

Climate-related scenarios	Details
Other, please specify (Internally conducted exercise)	<p>To continue fostering strong, sustainable supply chains, companies must understand the driving forces in the marketplace and society that will influence long-term success. In 2017, a cross-functional team of Altria employees and external industry experts conducted a scenario planning process to explore how the supply of materials to manufacturers will evolve over the next decade. The desired outcome was to develop a long-term supply chain strategy for Altria’s companies. The team started by exploring the macro environment to identify trends and key uncertainties, including climate change, that could have substantial impacts on supply chains over the next 10 years, then considering how those trends could specifically impact Altria. The team also consider Altria’s current procurement approach, including over 2,000 tobacco growers and sourcing of materials for our major tobacco brands like Marlboro and Copenhagen. The team developed four possible scenarios which included assumptions about land and resource availability and environmental sustainability. Critical trends identified for Altria’s supply chains included changes in technology, such as artificial intelligence and robotics; increased transparency supporting consumer and societal expectations of a responsible company; and flexibility to meet rapid changes in technology and consumer preference. The team identified key success factors to address these critical trends and conducted a gap analysis to evaluate where Altria is today compared to where our companies will need to be in the future. As an outcome of this process, in 2018 we established a Procurement Center of Excellence and began focusing on developing flexible supply chain models that are sustainable, collaborative, secure, and provide a competitive advantage for Altria’s companies. We are also leveraging data and transparency to act on and share key insights throughout our supply chains. This approach to data and transparency and insights sharing will be critical as we work to understand and address environmental impacts beyond our facilities, and manage climate-related physical risks within our supply chains.</p>

**C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e**

**(C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e) Disclose details of your organization’s low-carbon transition plan.**

Altria’s companies have maintained long-term environmental goals, including greenhouse gas emissions reduction targets, for more than ten years.

Currently, our companies are working against enterprise-wide 2025 environmental goals in the areas of greenhouse gas emissions, energy use, water sustainability and waste reduction. We are working to reduce absolute Scope 1 and Scope 2 GHG emissions by 20% based on a 2015 baseline. Through 2018, we have been successful in reducing our Scope 1 and Scope 2 emissions by 15.3%, driven by emissions reduction activities across our businesses, including facility lighting retrofits and other operational efficiencies.

Additionally, we are working to understand our environmental impacts and opportunities beyond our facilities. This work includes data gathering and analysis of Altria’s Scope 3 greenhouse gas inventory, working with our supply chain to improve Good Agricultural Practices which in part focus on reducing environmental impacts, and continuing to monitor the evolution of alternative and renewable forms of energy generation. In establishing our 2025 long-term environmental goals, best practices and resources from the Science Based Targets initiative were considered when setting Altria’s Scope 1 and Scope 2 emissions reduction target. This past year, we also set a goal to reduce absolute Scope 3 emissions by 15% by 2030 and formally committed to the Science Based Targets initiative. By aligning our emissions goals with science-based targets methodology, we hope to do our part in reducing the global impacts of climate change brought on by a 2-degrees Celsius warming scenario.

**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

**Scope**

Scope 1+2 (location-based)

**% emissions in Scope**

100

**Targeted % reduction from base year**

20

**Base year**

2015

**Start year**

2016

**Base year emissions covered by target (metric tons CO2e)**

392172

**Target year**

2025

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

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

**% of target achieved**

76.5

**Target status**

Underway

**Please explain**

This target has been set using methodology provided by the Sectoral Decarbonization Approach. Altria and its operating companies' Scope 1 and Scope 2 GHG emissions for full year 2018 decreased 2.3% compared with 2017.

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**Target reference number**

Abs 2

**Scope**

Scope 3 (upstream & downstream)

**% emissions in Scope**

100

**Targeted % reduction from base year**

15

**Base year**

2017

**Start year**

2018

**Base year emissions covered by target (metric tons CO2e)**

1977298

**Target year**

2030

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

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

**% of target achieved**

25.3

**Target status**

Underway

**Please explain**

This target has been set through internal collaboration and engagement between Altria's Corporate Responsibility and Procurement departments. Altria and its operating companies' Scope 3 GHG emissions for full year 2018 decreased 3.8% compared with 2017.

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**C4.2**

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

**Target**

Waste

**KPI – Metric numerator**

21,000,000 lbs.

**KPI – Metric denominator (intensity targets only)**

**Base year**

2015

**Start year**

2016

**Target year**

2025

**KPI in baseline year**

28200000

**KPI in target year**

21200000

**% achieved in reporting year**

100

**Target Status**

Achieved

**Please explain**

Altria's companies are working towards a long-term goal to reduce waste sent to landfill from operations 25% by 2025, against a 2015 baseline.

**Part of emissions target**

Although not currently part of Altria's Scope 1 and 2 emissions reduction target, reducing waste generated from operations will drive progress against enterprise-wide Scope 3 emissions over the coming years.

**Is this target part of an overarching initiative?**

Other, please specify (Part of long-term environmental goals)

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**Target**

Energy usage

**KPI – Metric numerator**

4,264 BBTU

**KPI – Metric denominator (intensity targets only)**

**Base year**

2015

**Start year**

2016

**Target year**

2025

**KPI in baseline year**

4799

**KPI in target year**

3935

**% achieved in reporting year**

62

**Target Status**

Underway

**Please explain**

Altria's companies are working towards a long-term goal to cut absolute energy use by 18% across operations by 2025 against a 2015 baseline.

**Part of emissions target**

Progress against this energy use target directly influences progress against Altria's Scope 1 and 2 emissions reduction target.

**Is this target part of an overarching initiative?**

Other, please specify (Part of long-term environmental goals)

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**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	6	
To be implemented*	0	0
Implementation commenced*	1	67.9
Implemented*	1	2413
Not to be implemented	0	

C4.3b

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

**Initiative type**

Energy efficiency: Building services

**Description of initiative**

Lighting

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

2413

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

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

1600000

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

8700000

**Payback period**

4 - 10 years

**Estimated lifetime of the initiative**

Ongoing

**Comment**

C4.3c

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

Method	Comment
Financial optimization calculations	Initial project identification is by need (i.e. end of life, maintenance or process change). Project execution and selection of design criteria is based upon energy reduction goals and business requirements. Justification is based on business need and financial return on investment.
Other (Emissions reduction benefit)	Altria's Safety, Health and Environment, and Operating Company Engineering teams conduct third-party energy assessments periodically to help identify energy savings opportunities at our facilities. In addition to these activities, when a project or opportunity offers superior environmental benefits from its implementation, these teams may choose to pursue such projects even if results of financial optimization calculations do not show a strong financial return on investment. An example of this type of decision includes USSTC's choice to replace coal-fired boilers with natural gas boilers at one of its facilities, even though financial optimization calculations indicated cost effectiveness for the continued operation of the existing boilers.

C-AC4.4/C-FB4.4/C-PF4.4

(C-AC4.4/C-FB4.4/C-PF4.4) Do you implement management practices on your own land with a climate change mitigation and/or adaption benefit?

Yes

C-AC4.4a/C-FB4.4a/C-PF4.4a

(C-AC4.4a/C-FB4.4a/C-PF4.4a) Specify the agricultural or forest management practice(s) implemented on your own land with climate change mitigation and/or adaptation benefits and provide a corresponding emissions figure, if known.

**Management practice reference number**

MP1

**Management practice**

Biodiversity considerations

**Description of management practice**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon. Vineyard management strategy includes utilizing best management practices with biodiversity considerations in mind. These management practices include but are not limited to utilizing cover crops to reduce soil erosion and promote beneficial insect habitats; planting trees besides streams to control runoff and erosion; and using natural methods to control weeds and pests. At this time, we do not measure emissions reductions associated with biodiversity considerations on Ste. Michelle's company-owned vineyards.

**Primary climate change-related benefit**

Emission reductions (mitigation)

**Estimated CO2e savings (metric tons CO2e)****Please explain**

Currently, we do not estimate CO2e savings from biodiversity considerations on our land.

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**Management practice reference number**

MP2

**Management practice**

Efficient equipment use

**Description of management practice**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon. Vineyard management strategy includes utilizing best management practices with efficient equipment use in mind. These management practices include but are not limited to using water-conserving nozzles on cellar hoses; re-using winery gray water; and conserving hot water and increasing efficiencies of tank heating systems. While efficient equipment use does reduce vineyard and winery energy use, emissions reductions associated with these individual projects are not measured at a project or initiative level, but are included in Ste. Michelle's overall Scope 1 and Scope 2 emissions.

**Primary climate change-related benefit**

Emission reductions (mitigation)

**Estimated CO2e savings (metric tons CO2e)****Please explain**

Currently, we do not estimate CO2e savings from efficiency equipment use on our land.

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**Management practice reference number**

MP3

**Management practice**

Equipment maintenance and calibration

**Description of management practice**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon. Vineyard management strategy includes utilizing best management practices with equipment maintenance and calibration in mind. An example of this management practice includes the implementation of enhanced heat exchangers to reduce water usage in fermentation cellars at some of Ste. Michelle's wineries. While equipment maintenance and calibration does reduce vineyard and winery energy use, emissions reductions associated with these individual projects are not measured at a project or initiative level, but are included in Ste. Michelle's overall Scope 1 and Scope 2 emissions.

**Primary climate change-related benefit**

Emission reductions (mitigation)

**Estimated CO2e savings (metric tons CO2e)****Please explain**

Currently, we do not estimate CO2e savings from equipment maintenance and calibration on our land.

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**Management practice reference number**

MP4

**Management practice**

Fertilizer management

**Description of management practice**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon. Vineyard management strategy includes utilizing best management practices with fertilizer management in mind. These management practices include but are not limited to utilizing cover crops to reduce soil erosion and promote beneficial insect habitats, and planting trees besides streams to control runoff and erosion. While fertilizer management does reduce vineyard fertilizer usage, emissions reductions associated with these individual management practices are not measured at a vineyard level.

**Primary climate change-related benefit**

Reduced demand for fertilizers (adaptation)

**Estimated CO2e savings (metric tons CO2e)****Please explain**

Currently, we do not estimate CO2e savings from fertilizer management practices on our land.

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**Management practice reference number**

MP5

**Management practice**

Integrated pest management

**Description of management practice**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon. Vineyard management strategy includes utilizing best management practices with integrated pest management in mind. These integrated pest management techniques include using cover crops specifically designed to attract certain insects which feed on harmful bugs and fungi; maintaining and expanding the registered virus-free mother block of disease-resistant wine grape vines; and increasing the use of environmentally friendly pest control agents as well as company reliance on materials such as biodegradable soaps, oils and plant extracts. While

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integrated pest management does reduce demand for pesticide usage, emissions reductions associated with these individual management practices are not measured at a vineyard level.

**Primary climate change-related benefit**

Reduced demand for pesticides (adaptation)

**Estimated CO2e savings (metric tons CO2e)**

**Please explain**

Currently, we do not estimate CO2e savings from integrated pest management on our land.

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**Management practice reference number**

MP6

**Management practice**

Knowledge sharing

**Description of management practice**

Ste. Michelle has had a long history of taking a leading role in engaging with other wine grape growers. In 2007, Ste. Michelle spearheaded the creation of Vinewise in conjunction with the Washington Association of Wine Grape Growers to provide wineries with information and tools to help evaluate business practices and implement sustainable management strategies. Vinewise includes knowledge sharing including but not limited to pest management; soil management; vineyard site selection; and water management. Ste. Michelle has integrated the Vinewise self-assessment tool into its contract grower relationships to help improve grower practices. At this time, emissions reductions directly attributable to these activities are not captured at a grower level.

**Primary climate change-related benefit**

Emission reductions (mitigation)

**Estimated CO2e savings (metric tons CO2e)**

**Please explain**

Currently, we do not estimate CO2e savings from knowledge on our land.

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**Management practice reference number**

MP7

**Management practice**

Pest, disease and weed management practices

**Description of management practice**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon. Vineyard management strategy includes utilizing best management practices with pest, disease and weed management mind. Through using integrated pest management techniques include using cover crops specifically designed to attract certain insects which feed on harmful bugs and fungi; maintaining and expanding the registered virus-free mother block of disease-resistant wine grape vines; and increasing the use of environmentally friendly pest control agents as well as company reliance on materials such as biodegradable soaps, oils and plant extracts. While integrated pest management does reduce demand for pesticide usage, emissions reductions associated with these individual management practices are not measured at a vineyard level.

**Primary climate change-related benefit**

Reduced demand for pesticides (adaptation)

**Estimated CO2e savings (metric tons CO2e)**

**Please explain**

Currently, we do not estimate CO2e savings from pest, disease and weed management practices on our land.

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**Management practice reference number**

MP8

**Management practice**

Timing of farm operations

**Description of management practice**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon. As part of vineyard management strategy, timing of operations, such as irrigation systems to account for daily precipitation and hourly temperature conditions, maximizes efficient water consumption and energy use on the vineyard. While timing of operations does reduce vineyard water consumption and energy use, emissions reductions associated with the timing of operations are not measured at the vineyard-level, but are included in Ste. Michelle's overall Scope 2 emissions.

**Primary climate change-related benefit**

Emission reductions (mitigation)

**Estimated CO2e savings (metric tons CO2e)**

**Please explain**

Currently, we do not estimate CO2e savings from the timing of farm operations on our land.

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**Management practice reference number**

MP9

**Management practice**

Waste management

**Description of management practice**

Ste. Michelle's wineries and vineyards actively seek ways to reduce waste across their operations. In addition to on-site waste reduction and recycling, Ste. Michelle actively seeks ways to reduce packaging resources while maintaining product quality, including the use of lighter weight EcoBottles for some of its wines as well as alternative packaging such as kegs and aluminum cans for select products. Scope 3 emissions reductions associated with reducing waste to landfill from direct operations and from the disposal of used products are not currently captured at a vineyard or winery level.

**Primary climate change-related benefit**

Emission reductions (mitigation)

**Estimated CO2e savings (metric tons CO2e)**

**Please explain**

Currently, we do not estimate CO2e savings from waste management practices on our land.

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C4.5

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

No

C5. Emissions methodology

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C5.1

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

**Scope 1**

**Base year start**

January 1 2015

**Base year end**

December 31 2015

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

183450

**Comment**

**Scope 2 (location-based)**

**Base year start**

January 1 2015

**Base year end**

December 31 2015

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

208722

**Comment**

**Scope 2 (market-based)**

**Base year start**

January 1 2015

**Base year end**

December 31 2015

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

204900

**Comment**

C5.2

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**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.**

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

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C6.1

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(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)

162139

Start date

January 1 2018

End date

December 31 2018

Comment

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 are reporting a Scope 2, market-based figure

Comment

C6.3

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

Reporting year

Scope 2, location-based

170119

Scope 2, market-based (if applicable)

166706

Start date

January 1 2018

End date

December 31 2018

Comment

C6.4

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(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

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**(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**

Electricity and natural gas usage is estimated for some small offices in 2018.

**Relevance of Scope 1 emissions from this source**

No emissions excluded

**Relevance of location-based Scope 2 emissions from this source**

No emissions excluded

**Relevance of market-based Scope 2 emissions from this source (if applicable)**

No emissions excluded

**Explain why this source is excluded**

Altria's companies maintain a small number of offices in the United States and Canada. These offices are located in leased office space and are typically under 10,000 square feet, and natural gas and electricity usage is estimated for these locations.

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**Source**

International emissions from our Nu Mark operating company's Green Smoke division.

**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**

Altria's operating company Nu Mark acquired Green Smoke in 2014, with offices in Israel and distribution warehouses in the United States. Altria discontinued our e-vapor business under Nu Mark in 2018, and emissions from Nu Mark operating company's Green Smoke division have not been included. Emissions from this subsidiary's international location in Israel are not material to Altria's operating companies' overall emissions.

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**Source**

Emissions from operating company Nat Sherman.

**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**

Altria acquired Nat Sherman in 2017. Nat Sherman maintains offices in New Jersey, a manufacturing facility in North Carolina, and a flagship store in New York City. We are in the process of developing the infrastructure to collect environmental data from Nat Sherman's facilities, however we do not expect emissions at these locations to be material to Altria's overall emissions.

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**C6.5**

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

**Purchased goods and services**

**Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

1345000

**Emissions calculation methodology**

Emissions were calculated using a hybrid life cycle assessment approach for 100% of non-capital spend data over the reporting period. All values represent cradle-to-gate emissions across all GHG emissions identified in the GHG Protocol Value Chain Standard and GWP values from the IPCC Fifth Assessment Report. Being a high-impact category of spend, the estimate for tobacco-related emissions was further refined using agronomic data from the Tobacco Production Guides produced by the US Department of Agriculture extension services. These calculations, originally performed using 2017 spend data, have been adjusted to reflect 2018 activities based on operating company shipment volume changes reported in Altria's SEC Form 10-K.

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

0

**Explanation**

**Capital goods****Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

12000

**Emissions calculation methodology**

Emissions were calculated using an economic input-output life cycle assessment approach for 100% of capital expenditures data over the reporting period. All values represent cradle-to-gate emissions across all GHG emissions identified in the GHG Protocol Value Chain Standard and GWP values from the IPCC Fifth Assessment Report. These calculations, originally performed using 2017 spend data, have been adjusted to reflect 2018 activities based on operating company shipment volume changes reported in Altria's SEC Form 10-K.

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

0

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

Relevant, calculated

**Metric tonnes CO2e**

98000

**Emissions calculation methodology**

Emissions were calculated using data on Altria's energy consumption across operating companies. Location-based emissions factors at the regional level were derived using regional fuel mix and T&D losses reported by the US EPA's eGRID2016 data and the fuel-based supply chain inventory from the Ecoinvent database. Values were calculated using GWP values from the IPCC Fifth Assessment Report and represent upstream emissions from the production and transportation of fuels consumed by Altria companies in the reporting year as well as T&D losses associated with electricity use. These calculations, originally performed using 2017 spend data, have been adjusted to reflect 2018 activities based on operating company shipment volume changes reported in Altria's SEC Form 10-K.

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

0

**Explanation****Upstream transportation and distribution****Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

226000

**Emissions calculation methodology**

Emissions were calculated using an economic input-output life cycle assessment approach for 100% of logistics expenditures data over the reporting period. All values represent cradle-to-gate emissions across all GHG emissions identified in the GHG Protocol Value Chain Standard and GWP values from the IPCC Fifth Assessment Report. These calculations, originally performed using 2017 spend data, have been adjusted to reflect 2018 activities based on operating company shipment volume changes reported in Altria's SEC Form 10-K.

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

0

**Explanation****Waste generated in operations****Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

5000

**Emissions calculation methodology**

Emissions associated with landfill and incineration activities were calculated using detailed data on landfilling and incineration activities by material type at Altria operating companies and emissions factors associated with waste processes from the U.S. EPA's Waste Action and Reduction Model (WARM). Emissions associated with materials sent to offsite recycling/WTE incineration/composting were calculated using DEFRA factors, which only account for the collection and transportation of the materials to the processing facility. All values represent cradle-to-gate emissions across all GHG emissions identified in the GHG Protocol Value Chain Standard and GWP values from the IPCC Fifth Assessment Report. These calculations, originally performed using 2017 spend data, have been adjusted to reflect 2018 activities based on operating company shipment volume changes reported in Altria's SEC Form 10-K.

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

0

**Explanation**

## Business travel

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

20286

### Emissions calculation methodology

Values represent all emissions associated with purchased air travel and rental cars. Emissions were calculated using miles flown and miles driven in rental cars by employees and emissions factors specific to air travel distance and cabin class and rental car fuel economy class.

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

96.5

### Explanation

Emissions from accommodations (3.5% of total) were not provided by travel vendors and were estimated for this analysis.

## Employee commuting

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

17000

### Emissions calculation methodology

Emissions were estimated using the total number of Altria employees, an assumed breakdown of commuting patterns (mode and distance) based on American Community Survey Reports published by the U.S. Census Bureau and average emissions factors for U.S. automobiles and mass transit from WRI's GHG Protocol Calculation Tools. These calculations, originally performed using 2017 spend data, have been adjusted to reflect 2018 activities based on operating company shipment volume changes reported in Altria's SEC Form 10-K.

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

0

### Explanation

## Upstream leased assets

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Explanation

Emissions associated with AGDC's leased vehicle fleet have been included in the Scope 1 and Scope 3 Category 3 (Fuel-and-energy-related activities (not included in Scope 1 or 2))

## Downstream transportation and distribution

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

148000

### Emissions calculation methodology

Values represents an estimate of downstream emissions associated with wholesale warehouses and retail stores for tobacco products; all inbound and outbound transportation is tracked in Category 4 as per the GHG Protocol Value Chain Standard. Emissions were estimated using GWP values from the IPCC Fifth Assessment Report and average energy consumption intensities of U.S. warehouses and retail stores from the Department of Energy's most recent Commercial Buildings Energy Consumption Survey (CBECS) and estimates of the floor space and time that Altria products take up in warehouses and retail stores. Retail stores were modeled as an average U.S. convenience store. These calculations, originally performed using 2017 spend data, have been adjusted to reflect 2018 activities based on operating company shipment volume changes reported in Altria's SEC Form 10-K.

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

0

### Explanation

## Processing of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Explanation

This category is not relevant to Altria, as its products are exclusively consumer products that are not further processed before consumption.

## Use of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Explanation

Other than biogenic CO2 emissions associated with consumption of smoked tobacco products (treated in "Other" categories below as per the GHG Protocol Value Chain Standard), this category is not relevant to Altria, as its products do not generally emit GHG or consume energy directly. Electronic vapor cigarettes do consume a small amount of energy during their recharge. However, these impacts are negligible. As such, this category is not relevant due to size and influence and we excluded these impacts from our scope 3 boundary.

## End of life treatment of sold products

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

80000

### Emissions calculation methodology

Emissions represent the landfilling of Altria products and packaging post-consumer use. Besides corrugated cardboard packaging (assumed to be recycled at 85% rate), all post-consumer products (unconsumed portion of cigarettes, moist snuff, and snus) and packaging (boxes, tins, plastic wrap, etc.) were assumed to be landfilled to produce a conservative estimate of the likely importance of this category. Emissions were estimated using a combination of estimated and measured masses of packaging and products with emissions factors from U.S. EPA's Waste Action and Reduction Model (WARM). These calculations, originally performed using 2017 spend data, have been adjusted to reflect 2018 activities based on operating company shipment volume changes reported in Altria's SEC Form 10-K.

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

0

### Explanation

## Downstream leased assets

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Explanation

This category is not relevant to Altria as it does not lease assets to any other organization.

## Franchises

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Explanation

This category is not relevant to Altria as it does not operate franchises.

## Investments

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Explanation

This category is not relevant to Altria as it is neither an investor nor a financial intermediary.

**Other (upstream)****Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

206000

**Emissions calculation methodology**

Value represents the biogenic sequestration associated with growing of tobacco purchased by Altria within the reporting year and are accounted in "Other" categories as per the GHG Protocol Value Chain Standard. These calculations, originally performed using 2017 spend data, have been adjusted to reflect 2018 activities based on operating company shipment volume changes reported in Altria's SEC Form 10-K.

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

0

**Explanation****Other (downstream)****Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

156000

**Emissions calculation methodology**

Value represents the biogenic CO2 emissions from the use of sold products and are accounted in "Other" categories as per the GHG Protocol Value Chain Standard. Emissions represent an estimate of the CO2 emissions released during consumption of combustible tobacco products sold by Altria during the reporting year. These calculations, originally performed using 2017 spend data, have been adjusted to reflect 2018 activities based on operating company shipment volume changes reported in Altria's SEC Form 10-K.

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

0

**Explanation****C-AC6.6/C-FB6.6/C-PF6.6****(C-AC6.6/C-FB6.6/C-PF6.6) Can you break down your Scope 3 emissions by relevant business activity area?**

Partially

**C-AC6.6a/C-FB6.6a/C-PF6.6a****(C-AC6.6a/C-FB6.6a/C-PF6.6a) Disclose your Scope 3 emissions for each of your relevant business activity areas.****Activity**

Agriculture/Forestry

**Scope 3 category**

Purchased goods and services

**Emissions (metric tons CO2e)**

713832

**Please explain**

Emissions were calculated using a hybrid life cycle assessment approach for 100% of non-capital spend data over the reporting period. All values represent cradle-to-gate emissions across all GHG emissions identified in the GHG Protocol Value Chain Standard and GWP values from the IPCC Fifth Assessment Report. Being a high-impact category of spend, the estimate for tobacco-related emissions was further refined using agronomic data from the Tobacco Production Guides produced by the US Department of Agriculture extension services. For tobacco: An input-output LCA was conducted to quantify (1) on-farm emissions from tobacco growing; (2) farm's embedded supply chain emissions; and (3) the upstream manufacturing emissions of pre-processed tobacco. This model was hybridized to account for differences in price and farming practices across the various grades of tobacco purchased by Altria's companies. Further adjustments were made to account for upstream manufacturing of purchased pre-processed tobacco. For wine grapes: An input-output LCA was conducted to quantify (1) on-vineyard emissions of grape growing and (2) vineyard's embedded supply chain emissions. This calculation, originally performed using 2017 spend data, has been adjusted to reflect 2018 activities based on operating company shipment volume changes reported in Altria's SEC Form 10-K.

**C6.7****(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?**

No

**C-AC6.8/C-FB6.8/C-PF6.8****(C-AC6.8/C-FB6.8/C-PF6.8) Is biogenic carbon pertaining to your direct operations relevant to your current CDP climate change disclosure?**

No

**(C-AC6.9/C-FB6.9/C-PF6.9) Do you collect or calculate greenhouse gas emissions for each commodity reported as significant to your business in C-AC0.7/FB0.7/PF0.7?**

**Agricultural commodities**

Tobacco

**Do you collect or calculate GHG emissions for this commodity?**

Yes

**Please explain**

Altria's tobacco companies purchase tobacco leaf for the manufacturing of their products. Scope 3 emissions calculations and methodology associated with the purchase of tobacco are disclosed in C6.5

**Agricultural commodities**

Other (Wine Grapes)

**Do you collect or calculate GHG emissions for this commodity?**

Yes

**Please explain**

Ste. Michelle Wine Estates owns 3,934 acres of vineyards and contracts for grapes from long-term grape growers on approximately 29,083 acres. Scope 3 emissions calculations and methodology associated with the purchase of wine grapes are disclosed in C6.5. Emissions from wine grapes grown on Ste. Michelle's company-owned acres are captured as part of Altria's overall Scope 1 emissions.

**(C-AC6.9a/C-FB6.9a/C-PF6.9a) Report your greenhouse gas emissions figure(s) for your disclosing commodity(ies), explain your methodology, and include any exclusions.**

**Tobacco**

**Reporting emissions by**

Total

**Emissions (metric tons CO2e)**

1001205

**Denominator: unit of production**

<Not Applicable>

**Change from last reporting year**

Lower

**Please explain**

The total figure reported includes Scope 1 and Scope 2 greenhouse gas emissions from Altria's operating companies and service companies related to the manufacturing and distribution of tobacco products, as well as Scope 3 emissions from: (1) on-farm emissions from tobacco growing; (2) farm's embedded supply chain emissions; and (3) the upstream manufacturing emissions of pre-processed tobacco. Emissions were calculated using a hybrid life cycle assessment approach for 100% of non-capital spend data over the reporting period. All values represent cradle-to-gate emissions across all GHG emissions identified in the GHG Protocol Value Chain Standard and GWP values from the IPCC Fifth Assessment Report. Being a high-impact category of spend, the estimate for tobacco-related emissions was further refined using agronomic data from the Tobacco Production Guides produced by the US Department of Agriculture extension services. Calculation of Scope 3 data, originally performed using 2017 spend data, has been adjusted to reflect 2018 activities based on operating company shipment volume changes reported in Altria's SEC Form 10-K.

**Other**

**Reporting emissions by**

Total

**Emissions (metric tons CO2e)**

44886

**Denominator: unit of production**

<Not Applicable>

**Change from last reporting year**

Higher

**Please explain**

The total figure reported includes Scope 1 and Scope 2 greenhouse gas emissions from Ste. Michelle, as well as Scope 3 emissions from (1) on-vineyard emissions of grape growing; and (2) vineyard's embedded supply chain emissions. Emissions were calculated using a hybrid life cycle assessment approach for 100% of non-capital spend data over the reporting period. All values represent cradle-to-gate emissions across all GHG emissions identified in the GHG Protocol Value Chain Standard and GWP values from the IPCC Fifth Assessment Report. Calculation of Scope 3 data, originally performed using 2017 spend data, has been adjusted to reflect 2018 activities based on operating company shipment volume changes reported in Altria's SEC Form 10-K.

**(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**

0.0000131

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

332258

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

25364000000

**Scope 2 figure used**

Location-based

**% change from previous year**

1.5

**Direction of change**

Decreased

**Reason for change**

Scope 1 and Scope 2 emissions on an intensity basis per unit of revenue decreased 1.5 percent from 2017 to 2018, with revenues decreasing by 0.82 percent. This decrease in emissions has resulted from GHG reduction activities across Altria's operating companies' facilities. These projects have included but are not limited to retrofitting lighting fixtures at operating company facilities to more efficient technologies such as LED; optimizing set-points for refrigeration systems; replacing outdated HVAC units; and reducing manufacturing waste and water consumption.

**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	159318	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	208	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	160	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	2454	IPCC Fifth Assessment Report (AR5 – 100 year)

**C7.2**

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

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	162139

**C7.3**

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

By business division

**C7.3a**

**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

Business division	Scope 1 emissions (metric ton CO2e)
Altria Group Distribution Company	19422
Altria Client Services LLC	14001
John Middleton Company	3424
Philip Morris USA	99701
Ste. Michelle Wine Estates	6508
U.S. Smokeless Tobacco Company	18921
Nu Mark	0
Other	161.8

**C-AC7.4/C-FB7.4/C-PF7.4**

**(C-AC7.4/C-FB7.4/C-PF7.4) Do you include emissions pertaining to your business activity(ies) in your direct operations as part of your global gross Scope 1 figure?**

Yes

**C-AC7.4a/C-FB7.4a/C-PF7.4a**

**(C-AC7.4a/C-FB7.4a/C-PF7.4a) Select the form(s) in which you are reporting your agricultural/forestry emissions.**

Total emissions

**C-AC7.4b/C-FB7.4b/C-PF7.4b**

**(C-AC7.4b/C-FB7.4b/C-PF7.4b) Report the Scope 1 emissions pertaining to your business activity(ies) and explain any exclusions. If applicable, disaggregate your agricultural/forestry by GHG emissions category.**

**Activity**

Agriculture/Forestry

**Emissions category**

<Not Applicable>

**Emissions (metric tons CO2e)**

768.6

**Methodology**

Default emissions factor

**Please explain**

The total emissions figure reported includes Scope 1 emissions associated with agricultural activities across Ste. Michelle's vineyards.

**Activity**

Processing/Manufacturing

**Emissions category**

<Not Applicable>

**Emissions (metric tons CO2e)**

161370.82

**Methodology**

Default emissions factor

**Please explain**

The total emissions figure reported includes Scope 1 emissions associated with business activities related to the Processing and Manufacturing of tobacco and wine products.

**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)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
United States of America	170119	166706	447327	10515

C7.6

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

By business division

C7.6a

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

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Altria Group Distribution Company	934.2	934.2
Altria Client Services LLC	15323	12236
John Middleton Company	2760	2760
Philip Morris USA	103051	103051
Ste. Michelle Wine Estates	17244	16918
U.S. Smokeless Tobacco Company	30736	30736
Nu Mark	71.6	71.6
Other	0	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	Altria's operating companies purchase a Renewable Energy Certificate (REC) for a portion of one of our facility's energy use, participate in Dominion Energy's Green Power Program, and participate in MCE's Light Green (50%) Power Program at Ste. Michelle's Conn Creek and Stag's Leap Wineries. Around 1 percent of enterprise-wide energy use is derived from renewable sources. The purchase of RECs did not change in 2018 versus 2017.
Other emissions reduction activities	7749	Decreased	2.28	Through emissions reduction activities and variations in business unit production volumes across Altria's operating company facilities combined Scope 1 and 2 emissions decreased by 7,749 tonnes of CO2e in 2018 versus 2017. Total Scope 1 and Scope 2 emissions in 2017 were 340,007. In 2018, Total Scope 1 and Scope 2 emissions were 332,258. Emissions Value Decrease: 340,007 – 332,258 = 7,749 (7,749/340,007) = 2.28%
Divestment	0	No change	0	In December 2018, Altria announced the decision to refocus its innovative product efforts, which included Nu Mark's discontinuation of production and distribution of all e-vapor products. Prior to that time, Nu Mark was engaged in the manufacture and sale of innovative tobacco products. Combined Scope 1 and 2 emissions from this operating company accounted for less than 1 percent of Altria's overall Scope 1 and 2 emissions in 2018.
Acquisitions		<Not Applicable >		
Mergers		<Not Applicable >		
Change in output	0	No change	0	Product output decreased slightly across some of Altria's operating companies and increased slightly amongst others in 2018. Regardless of the direction of output change, Altria's combined Scope 1 and Scope 2 emissions continued to decrease in 2018.
Change in methodology		<Not Applicable >		
Change in boundary		<Not Applicable >		
Change in physical operating conditions		<Not Applicable >		
Unidentified		<Not Applicable >		
Other		<Not Applicable >		

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

### C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	802252	802252
Consumption of purchased or acquired electricity	<Not Applicable>	10515	436812	447327
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	10515	1239064	1249579

### 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	Yes
Consumption of fuel for the generation of cooling	Yes
Consumption of fuel for co-generation or tri-generation	Yes

### C8.2c

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

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

637376.82

**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 steam**

0

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

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

---

**Fuels (excluding feedstocks)**

Propane Gas

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

46584.82

**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 steam**

0

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

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

---

**Fuels (excluding feedstocks)**

Diesel

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

5667.37

**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 steam**

0

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

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

---

**Fuels (excluding feedstocks)**

Jet Kerosene

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

20361.69

**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 steam**

0

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

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

---

**Fuels (excluding feedstocks)**

Fuel Oil Number 2

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

858.41

**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 steam**

0

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

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

---

**Fuels (excluding feedstocks)**

Motor Gasoline

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

91393.04

**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 steam**

0

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

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

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## C8.2d

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

**Diesel**

**Emission factor**

10.21

**Unit**

kg CO2e per gallon

**Emission factor source**

From: EPA Climate Leaders - EPA (2014) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012. ([https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors\\_2014.pdf](https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf))

**Comment**

**Fuel Oil Number 2**

**Emission factor**  
10.21

**Unit**  
kg CO2e per gallon

**Emission factor source**  
From: EPA Climate Leaders - EPA (2014) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012. ([https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors\\_2014.pdf](https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf))

**Comment**

**Jet Kerosene**

**Emission factor**  
9.75

**Unit**  
kg CO2e per gallon

**Emission factor source**  
From: EPA Climate Leaders - EPA (2014) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012. ([https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors\\_2014.pdf](https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf))

**Comment**

**Motor Gasoline**

**Emission factor**  
8.78

**Unit**  
kg CO2e per gallon

**Emission factor source**  
From: EPA Climate Leaders - EPA (2014) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012. ([https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors\\_2014.pdf](https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf))

**Comment**

**Natural Gas**

**Emission factor**  
53.06

**Unit**  
kg CO2e per million Btu

**Emission factor source**  
From: EPA Climate Leaders - EPA (2014) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012. ([https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors\\_2014.pdf](https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf))

**Comment**

**Propane Gas**

**Emission factor**  
5.68

**Unit**  
kg CO2e per gallon

**Emission factor source**  
From: EPA Climate Leaders - EPA (2014) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012. ([https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors\\_2014.pdf](https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf))

**Comment**

**C8.2e**

**(C8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	17597	17597	0	0
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

**C8.2f**

**(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.**

**Basis for applying a low-carbon emission factor**

Energy attribute certificates, Renewable Energy Certificates (RECs)

**Low-carbon technology type**

Wind

**Region of consumption of low-carbon electricity, heat, steam or cooling**

North America

**MWh consumed associated with low-carbon electricity, heat, steam or cooling**

10515

**Emission factor (in units of metric tons CO2e per MWh)**

0.0286

**Comment**

Altria's operating companies purchase a Renewable Energy Certificate (REC) for a portion of one of our facility's energy use, participate in Dominion Energy's Green Power Program, and participate in MCE's Light Green (50%) Power Program at Ste. Michelle's Conn Creek and Stag's Leap Wineries. Around 1% of enterprise-wide energy use is derived from renewable sources.

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**C9. Additional metrics**

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**C9.1**

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

**Description**

Waste

**Metric value**

21000000

**Metric numerator**

Pounds (lbs) of waste sent to landfill

**Metric denominator (intensity metric only)**

**% change from previous year**

24.7

**Direction of change**

Decreased

**Please explain**

Altria's companies are working towards a long-term goal to reduce waste sent to landfill from operations 25% by 2025, against a 2015 baseline of 28,200,000 lbs. Waste sent to landfill decreased from 27,900,000 lbs in 2017 to 21,000,000 lbs in 2018. Reducing waste generated from operations drives progress against our enterprise-wide Scope 3 emissions reduction goal.

---

**Description**

Energy usage

**Metric value**

4264

**Metric numerator**

BBTUs of enterprise-wide energy usage

**Metric denominator (intensity metric only)**

**% change from previous year**

2.2

**Direction of change**

Decreased

**Please explain**

Altria's companies are working towards a long-term goal to cut absolute energy use by 18% across operations by 2025 against a 2015 baseline. Energy use decreased from 4,360 BBTUs in 2017 to 4,264 BBTUs in 2018, a 2.2 percent reduction in energy use driven largely by energy efficiency activities such as lighting retrofits across Altria's operating companies' facilities. Progress against this energy use target directly influences progress against Altria's Scope 1 and 2 emissions reduction target.

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**C10. Verification**

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**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	Third-party verification or assurance process in place

**C10.1a**

**(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.**

**Scope**

Scope 1

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Altria 2018 assurance statement FINAL.pdf

**Page/ section reference**

Pages 1-3

**Relevant standard**

ISAE3000

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

100

**Scope**

Scope 2 location-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Altria 2018 assurance statement FINAL.pdf

**Page/ section reference**

Pages 1-3

**Relevant standard**

ISAE3000

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

100

**Scope**

Scope 2 market-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**

Altria 2018 assurance statement FINAL.pdf

**Page/ section reference**

Pages 1-3

**Relevant standard**

ISAE3000

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

100

## C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

**Scope**

Scope 3- at least one applicable category

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Attach the statement**

Altria 2018 assurance statement FINAL.pdf

**Page/section reference**

Pages 1-3

**Relevant standard**

ISAE3000

## 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?

Yes

## C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C6. Emissions data	Year on year change in emissions (Scope 1 and 2)	ISAE 3000	ERM Certification and Verification Services, Inc. (ERM CVS) has been engaged by Altria to provide independent, 3rd-party assurance in relation to GHG, water and waste consolidated data for each calendar year since 2013. Scope 1 and 2 emissions are included in this assurance process. Altria 2018 assurance statement FINAL.pdf
C6. Emissions data	Year on year change in emissions (Scope 3)	ISAE 3000	ERM Certification and Verification Services, Inc. (ERM CVS) has been engaged by Altria to provide independent, 3rd-party assurance in relation to GHG, water and waste consolidated data for each calendar year since 2013. Scope 3 emissions related to business travel activities have also been assured since 2013. Altria 2018 assurance statement FINAL.pdf
C8. Energy	Other, please specify (Energy consumption data)	ISAE 3000	ERM Certification and Verification Services, Inc. (ERM CVS) has been engaged by Altria to provide independent, 3rd-party assurance in relation to GHG, water and waste consolidated data for each calendar year since 2013. Energy use-related data disclosed in C8. has also been assured since 2013. Altria 2018 assurance statement FINAL.pdf

## 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)?

Yes

### C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

EU ETS

### C11.1b

**(C11.1b) Complete the following table for each of the emissions trading systems in which you participate.**

**EU ETS**

**% of Scope 1 emissions covered by the ETS**

100

**Period start date**

January 1 2018

**Period end date**

December 31 2018

**Allowances allocated**

0

**Allowances purchased**

0

**Verified emissions in metric tons CO<sub>2</sub>e**

251

**Details of ownership**

Other, please specify (Corporate jet fleet fuel emissions )

**Comment**

**C11.1d**

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**(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?**

Altria's operating and service companies conduct business in compliance with all applicable environmental laws, regulations, policies and company commitments. Compliance with emissions trading schemes our operations are subject to, including the EU ETS our corporate jet fleet fuel emissions are subject to, is included in the approach that Altria's companies take towards conducting business.

**C11.2**

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**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

No

**C11.3**

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

No, and we do not currently anticipate doing so in the next two years

**C12. Engagement**

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**C12.1**

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

Yes, our suppliers

Yes, other partners in the value chain

**C12.1a**

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

**Type of engagement**

Innovation & collaboration (changing markets)

**Details of engagement**

Other, please specify (Provide training and support on sustainable agriculture practices to improve environmental stewardship)

**% of suppliers by number**

30.9

**% total procurement spend (direct and indirect)**

18.9

**% Scope 3 emissions as reported in C6.5**

37.5

**Rationale for the coverage of your engagement**

Altria engages with key suppliers through direct discussions, quality assessments and facility or farm visits. Our supplier management risk assessment methodology is used to determine current and potential opportunities and risks. In our domestic tobacco supply chain, we execute an on-farm Good Agricultural Practices (GAP) assessment process that assesses our direct contracted growers' compliance with practices related to crop, environment and labor management. The GAP assessment provides direct feedback to contracted growers on their practices and areas they may need to improve to meet our expectations. In 2018, we continued year two of a three-year assessment cycle during which all of our contracted growers will be assessed at least once, and growers with remediable findings will be reassessed again the following year. In 2018, these assessments covered approximately one-third of our total grower base. For tobacco sourced from suppliers both domestically as well as overseas, we work with tobacco suppliers to promote and maintain GAP among their growers. This includes crop, environmental and labor management, and where applicable, Green Tobacco Sickness (GTS) protocols. Ste. Michelle's Viticulture department actively works with suppliers to understand risks and opportunities related to climate and water. In 2007, Ste. Michelle spearheaded the creation of Vinewise in conjunction with the Washington Association of Wine Grape Growers to provide wineries with information and tools to help evaluate business practices and implement sustainable management strategies. Long-term grower contracts include on-site visits and Vinewise self-assessments which ask growers to report on Pest, Disease and Weed Management Practices; Integrated Pest Management; Timing of Farming Operations; Fertilizer Management; and Biodiversity considerations among other business and labor-related practices.

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

For supplier engagement, our measures of success are that 100% of our domestic contracted tobacco growers are assessed every 3 years and that all items needed to be remediated by the grower are done so in a timely manner. In 2018, 100% of growers with an up-to-date conservation plan maintained riparian buffers between tilled land and sensitive ecosystems if they had conservation easements or bodies of water adjacent to their farm. As we work to evaluate opportunities to reduce Scope 3 emissions associated with our tobacco operating companies' supply chains, we may leverage engagements through the GAP assessment process to potentially drive best management practices and track progress in reducing Scope 3 emissions from Purchased Goods and Services emissions. For Ste. Michelle, 95% of the company's contract growers employ drip irrigation and enhance their effectiveness through the use of weather stations and soil moisture-measuring probes that monitor water use and eliminate wasted water in the vineyards. The measure of success is 100% of contract vineyards use the Vinewise tool.

**Comment**

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**C12.1c**

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

Our companies support non-profit organizations that focus on: water quality and conservation in our operating communities; sustainable agriculture in tobacco-growing regions; and nationwide litter prevention and clean-up. PM USA also supports specific efforts that help reduce cigarette butt litter, including Keep America Beautiful, which implements the Cigarette Litter Prevention Program.

To address water-quality and water quantity issues in communities where our companies operate, in 2018, we continued to support the National Fish and Wildlife Foundation (NFWF) through several of its national and regional-scale programs which provide funding to local conservation organizations working directly with agricultural producers in the Chesapeake Bay watershed, Cumberland Plateau and Columbia River basin on conservation challenges unique to each region. These efforts restored over 1 billion gallons of clean water to rivers in the U.S. through the implementation of agricultural best management practices, irrigation efficiency and agricultural water use improvements, riparian buffers, and green infrastructure improvements for enhanced stormwater management.

To continue to foster sustainable agricultural practices in the tobacco value chain, Altria's funding of NFWF's programs supports work in Lancaster County, Pennsylvania and north-central Tennessee to increase the use of no-till tobacco farming amongst growers in these regions. Through these programs, interested contracted growers can more easily convert to no-till tobacco for the health of the environment and sustainability of their crop, while benefiting from cost and labor savings. Continuing to support the implementation of sustainable agricultural practices like no-till has the potential to reduce Scope 3 emissions from Purchased Goods and Services, and drive progress against our long-term Scope 3 emissions reduction goal.

In 2018, Keep America Beautiful, with support from PM USA, implemented the Cigarette Litter Prevention Program in 59 new communities and other sites across the United States. The program reduces cigarette litter on average by half in the communities in which it is implemented. More than 1,700 locations have implemented the program, now in its 17th year.

We prioritize engagements among non-profit organizations to support programs that focus on water quality and conservation in our operating communities; sustainable agriculture in tobacco-growing regions; and litter prevention and clean-up.

Our measures of success for non-profit organization engagement vary by the specific programs supported, but can include reductions in cigarette litter as part of Keep America Beautiful's Cigarette Litter Prevention Program in geographies where the program is implemented and the amount of water restored to U.S. waterways through the National Fish and Wildlife Foundation's programs we support.

**C-AC12.2/C-FB12.2/C-PF12.2**

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**(C-AC12.2/C-FB12.2/C-PF12.2) Do you encourage your suppliers to undertake any agricultural or forest management practices with climate change mitigation and/or adaptation benefits?**

Yes

**C-AC12.2a/C-FB12.2a/C-PF12.2a**

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**(C-AC12.2a/C-FB12.2a/C-PF12.2a) Specify which agricultural or forest management practices with climate change mitigation and/or adaptation benefits you encourage your suppliers to undertake and describe your role in the implementation of each practice.**

**Management practice reference number**

MP1

**Management practice**

Biodiversity considerations

**Description of management practice**

Ste. Michelle engages its contract growers in Washington State to assess their growing operations and requires growers to complete a yearly survey through Vinewise. The survey asks growers to report on Pest, Disease and Weed Management Practices; Integrated Pest Management; Timing of Farming Operations; Fertilizer Management; and Biodiversity considerations among other business and labor-related practices.

**Your role in the implementation**

Procurement

**Explanation of how you encourage implementation**

In 2007, Ste. Michelle spearheaded the creation of Vinewise in conjunction with the Washington Association of Wine Grape Growers to provide wineries with information and tools to help evaluate business practices and implement sustainable management strategies. Through this industry leadership, Ste. Michelle has continued to encourage responsible viticulture practices across its industry. By assessing contact growers annually through the Vinewise survey tool, Ste. Michelle encourages these management practices through its grape procurement practices.

**Climate change related benefit**

Emissions reductions (mitigation)

**Comment**

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**Management practice reference number**

MP2

**Management practice**

Fertilizer management

**Description of management practice**

Ste. Michelle engages its contract growers in Washington State to assess their growing operations and requires growers to complete a yearly survey through Vinewise. The survey asks growers to report on Pest, Disease and Weed Management Practices; Integrated Pest Management; Timing of Farming Operations; Fertilizer Management; and Biodiversity considerations among other business and labor-related practices.

**Your role in the implementation**

Procurement

**Explanation of how you encourage implementation**

In 2007, Ste. Michelle spearheaded the creation of Vinewise in conjunction with the Washington Association of Wine Grape Growers to provide wineries with information and tools to help evaluate business practices and implement sustainable management strategies. Through this industry leadership, Ste. Michelle has continued to encourage responsible viticulture practices across its industry. By assessing contact growers annually through the Vinewise survey tool, Ste. Michelle encourages these management practices through its grape procurement practices.

**Climate change related benefit**

Emissions reductions (mitigation)

Reduced demand for fertilizers (adaptation)

**Comment**

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**Management practice reference number**

MP3

**Management practice**

Integrated pest management

**Description of management practice**

Ste. Michelle engages its contract growers in Washington State to assess their growing operations and requires growers to complete a yearly survey through Vinewise. The survey asks growers to report on Pest, Disease and Weed Management Practices; Integrated Pest Management; Timing of Farming Operations; Fertilizer Management; and Biodiversity considerations among other business and labor-related practices.

**Your role in the implementation**

Procurement

**Explanation of how you encourage implementation**

In 2007, Ste. Michelle spearheaded the creation of Vinewise in conjunction with the Washington Association of Wine Grape Growers to provide wineries with information and tools to help evaluate business practices and implement sustainable management strategies. Through this industry leadership, Ste. Michelle has continued to encourage responsible viticulture practices across its industry. By assessing contact growers annually through the Vinewise survey tool, Ste. Michelle encourages these management practices through its grape procurement practices.

**Climate change related benefit**

Reduced demand for pesticides (adaptation)

**Comment**

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**Management practice reference number**

MP4

**Management practice**

Pest, disease and weed management practices

**Description of management practice**

Ste. Michelle engages its contract growers in Washington State to assess their growing operations and requires growers to complete a yearly survey through Vinewise. The survey asks growers to report on Pest, Disease and Weed Management Practices; Integrated Pest Management; Timing of Farming Operations; Fertilizer Management; and Biodiversity considerations among other business and labor-related practices.

**Your role in the implementation**

Procurement

**Explanation of how you encourage implementation**

In 2007, Ste. Michelle spearheaded the creation of Vinewise in conjunction with the Washington Association of Wine Grape Growers to provide wineries with information and tools to help evaluate business practices and implement sustainable management strategies. Through this industry leadership, Ste. Michelle has continued to encourage responsible viticulture practices across its industry. By assessing contact growers annually through the Vinewise survey tool, Ste. Michelle encourages these management practices through its grape procurement practices.

**Climate change related benefit**

Reduced demand for pesticides (adaptation)

**Comment**

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**Management practice reference number**

MP5

**Management practice**

Timing of farm operations

**Description of management practice**

Ste. Michelle engages its contract growers in Washington State to assess their growing operations and requires growers to complete a yearly survey through Vinewise. The survey asks growers to report on Pest, Disease and Weed Management Practices; Integrated Pest Management; Timing of Farming Operations; Fertilizer Management; and Biodiversity considerations among other business and labor-related practices.

**Your role in the implementation**

Procurement

**Explanation of how you encourage implementation**

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In 2007, Ste. Michelle spearheaded the creation of Vinewise in conjunction with the Washington Association of Wine Grape Growers to provide wineries with information and tools to help evaluate business practices and implement sustainable management strategies. Through this industry leadership, Ste. Michelle has continued to encourage responsible viticulture practices across its industry. By assessing contact growers annually through the Vinewise survey tool, Ste. Michelle encourages these management practices through its grape procurement practices.

**Climate change related benefit**

Emissions reductions (mitigation)

**Comment**

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**Management practice reference number**

MP6

**Management practice**

Crop rotation

**Description of management practice**

Atria's Supplier Code of Conduct and Tobacco GAP Supplemental guidelines requires all domestic tobacco growers to implement resource management processes that protect air, soil and water, such as crop rotation, soil samples, use of resistant tobacco varieties and proper pesticide usage. It also encourages our international leaf suppliers to replenish trees used in the tobacco curing process. Although wood is used by only a small portion of the growers of tobacco purchased by our companies, we invest in programs to repopulate the trees used. For over the past ten years, one of our tobacco suppliers has provided its contacted growers in Brazil with millions of eucalyptus seedlings, creating tens of thousands of acres of woodlot plantings. Additionally, we continue to support Total Land Care, a Malawi-based non-governmental organization whose programs address concerns about Malawi tobacco production and improving farmer livelihoods in the region. In addition to Altria's Supplier Code of Conduct, through our Tobacco Leaders Program, we support growers who use innovative ideas to promote sustainable agriculture. The Tobacco Leaders Program is based on tobacco Good Agricultural Practices (GAP), which are: -Crop Management -Integrated Pest Management -Nutrient Management -Crop and Operation Management -Curing and Barn Management -Non-Tobacco Related Materials -On-Farm Tobacco Storage -Soil and water management -Agrochemical management

**Your role in the implementation**

Knowledge sharing

Procurement

**Explanation of how you encourage implementation**

Our Tobacco Leaders Program also supports programs and research in tobacco-growing regions such as: •Farming mechanization/production innovation – developing equipment to reduce growers' production costs and their need for hand labor; •Tobacco curing efficiency – developing new curing methods that reduce the growers' cost of production and reduce negative environmental impact; •Seed variety research – developing new tobacco seed varieties to promote sustainable agriculture; •Universities & agricultural extension programs – educating tobacco growers about safety and crop management; and •Educational scholarships – supporting tobacco grower families as an investment in the future of tobacco production. Altria also participates in GAP Connections, a third-party entity, governed by a board of directors consisting of leaf buyers, tobacco manufacturers and grower organizations. GAP Connections oversees the Good Agricultural Practices standards which cover crop production practices, environmental practices and labor standards. GAP Connections provides resources to help growers be more sustainable with their land and the environment as well as how to comply with labor management practices which protect the rights of their workers and promote a safe working environment. All of our direct contracted growers must be members of GAP Connections and attend annual GAP training meetings. As a member of the board, in 2017 we approached our industry peers, grower organizations and GAP Connections with an idea to develop a voluntary grower certification program with the goal of continuing to enhance the sustainability of our grower base and tobacco supply chain. As a result, the GAP Connections Certification Program was launched in January of 2018. For our growers, the voluntary program gives them a chance to distinguish themselves in the marketplace. The certification program provides access to monitoring, such as on-farm audits, which identify areas in need of improvement and a clear remediation plan that makes correcting deficiencies easier. We were very active in encouraging our growers to participate in 2018. In 2018, 25 percent of our grower base applied for certification, and of that, 98 percent of them achieved it. It is our goal that 100 percent of contracted growers will be GAP Connections certified by 2021.

**Climate change related benefit**

Emissions reductions (mitigation)

**Comment**

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**Management practice reference number**

MP7

**Management practice**

Fertilizer management

**Description of management practice**

Atria's Supplier Code of Conduct and Tobacco GAP Supplemental guidelines requires all domestic tobacco growers to implement resource management processes that protect air, soil and water, such as crop rotation, soil samples, use of resistant tobacco varieties and proper pesticide usage. It also encourages our international leaf suppliers to replenish trees used in the tobacco curing process. Although wood is used by only a small portion of the growers of tobacco purchased by our companies, we invest in programs to repopulate the trees used. For over the past ten years, one of our tobacco suppliers has provided its contacted growers in Brazil with millions of eucalyptus seedlings, creating tens of thousands of acres of woodlot plantings. Additionally, we continue to support Total Land Care, a Malawi-based non-governmental organization whose programs address concerns about Malawi tobacco production and improving farmer livelihoods in the region. In addition to Altria's Supplier Code of Conduct, through our Tobacco Leaders Program, we support growers who use innovative ideas to promote sustainable agriculture. The Tobacco Leaders Program is based on tobacco Good Agricultural Practices (GAP), which are: -Crop Management -Integrated Pest Management -Nutrient Management -Crop and Operation Management -Curing and Barn Management -Non-Tobacco Related Materials -On-Farm Tobacco Storage -Soil and water management -Agrochemical management

**Your role in the implementation**

Knowledge sharing

Procurement

**Explanation of how you encourage implementation**

Our Tobacco Leaders Program also supports programs and research in tobacco-growing regions such as: •Farming mechanization/production innovation – developing equipment to reduce growers' production costs and their need for hand labor; •Tobacco curing efficiency – developing new curing methods that reduce the growers' cost of production and reduce negative environmental impact; •Seed variety research – developing new tobacco seed varieties to promote sustainable agriculture; •Universities & agricultural extension programs – educating tobacco growers about safety and crop management; and •Educational scholarships – supporting tobacco grower families as an investment in the future of tobacco production. Altria also participates in GAP Connections, a third-party entity, governed by a board of directors consisting of leaf buyers, tobacco manufacturers and grower organizations. GAP Connections oversees the Good Agricultural Practices standards which cover crop production practices, environmental practices and labor standards. GAP Connections provides resources to help growers be more sustainable with their land and the environment as well as how to comply with labor management practices which protect the rights of their workers and promote a safe working environment. All of our direct contracted growers must be members of GAP Connections and attend annual GAP training meetings. As a member of the board, in 2017 we approached our industry peers, grower organizations and GAP Connections with an idea to develop a voluntary grower certification program with the goal of continuing to enhance the sustainability of our grower base and tobacco

supply chain. As a result, the GAP Connections Certification Program was launched in January of 2018. For our growers, the voluntary program gives them a chance to distinguish themselves in the marketplace. The certification program provides access to monitoring, such as on-farm audits, which identify areas in need of improvement and a clear remediation plan that makes correcting deficiencies easier. We were very active in encouraging our growers to participate in 2018. In 2018, 25 percent of our grower base applied for certification, and of that, 98 percent of them achieved it. It is our goal that 100 percent of contracted growers will be GAP Connections certified by 2021.

**Climate change related benefit**

Emissions reductions (mitigation)  
Reduced demand for fertilizers (adaptation)

**Comment**

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**Management practice reference number**

MP8

**Management practice**

Integrated pest management

**Description of management practice**

Atria's Supplier Code of Conduct and Tobacco GAP Supplemental guidelines requires all domestic tobacco growers to implement resource management processes that protect air, soil and water, such as crop rotation, soil samples, use of resistant tobacco varieties and proper pesticide usage. It also encourages our international leaf suppliers to replenish trees used in the tobacco curing process. Although wood is used by only a small portion of the growers of tobacco purchased by our companies, we invest in programs to repopulate the trees used. For over the past ten years, one of our tobacco suppliers has provided its contacted growers in Brazil with millions of eucalyptus seedlings, creating tens of thousands of acres of woodlot plantings. Additionally, we continue to support Total Land Care, a Malawi-based non-governmental organization whose programs address concerns about Malawi tobacco production and improving farmer livelihoods in the region. In addition to Altria's Supplier Code of Conduct, through our Tobacco Leaders Program, we support growers who use innovative ideas to promote sustainable agriculture. The Tobacco Leaders Program is based on tobacco Good Agricultural Practices (GAP), which are: -Crop Management -Integrated Pest Management -Nutrient Management -Crop and Operation Management -Curing and Barn Management -Non-Tobacco Related Materials -On-Farm Tobacco Storage -Soil and water management -Agrochemical management

**Your role in the implementation**

Knowledge sharing  
Procurement

**Explanation of how you encourage implementation**

Our Tobacco Leaders Program also supports programs and research in tobacco-growing regions such as: •Farming mechanization/production innovation – developing equipment to reduce growers' production costs and their need for hand labor; •Tobacco curing efficiency – developing new curing methods that reduce the growers' cost of production and reduce negative environmental impact; •Seed variety research – developing new tobacco seed varieties to promote sustainable agriculture; •Universities & agricultural extension programs – educating tobacco growers about safety and crop management; and •Educational scholarships – supporting tobacco grower families as an investment in the future of tobacco production. Altria also participates in GAP Connections, a third-party entity, governed by a board of directors consisting of leaf buyers, tobacco manufacturers and grower organizations. GAP Connections oversees the Good Agricultural Practices standards which cover crop production practices, environmental practices and labor standards. GAP Connections provides resources to help growers be more sustainable with their land and the environment as well as how to comply with labor management practices which protect the rights of their workers and promote a safe working environment. All of our direct contracted growers must be members of GAP Connections and attend annual GAP training meetings. As a member of the board, in 2017 we approached our industry peers, grower organizations and GAP Connections with an idea to develop a voluntary grower certification program with the goal of continuing to enhance the sustainability of our grower base and tobacco supply chain. As a result, the GAP Connections Certification Program was launched in January of 2018. For our growers, the voluntary program gives them a chance to distinguish themselves in the marketplace. The certification program provides access to monitoring, such as on-farm audits, which identify areas in need of improvement and a clear remediation plan that makes correcting deficiencies easier. We were very active in encouraging our growers to participate in 2018. In 2018, 25 percent of our grower base applied for certification, and of that, 98 percent of them achieved it. It is our goal that 100 percent of contracted growers will be GAP Connections certified by 2021.

**Climate change related benefit**

Reduced demand for pesticides (adaptation)

**Comment**

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**Management practice reference number**

MP9

**Management practice**

Land use change

**Description of management practice**

Atria's Supplier Code of Conduct and Tobacco GAP Supplemental guidelines requires all domestic tobacco growers to implement resource management processes that protect air, soil and water, such as crop rotation, soil samples, use of resistant tobacco varieties and proper pesticide usage. It also encourages our international leaf suppliers to replenish trees used in the tobacco curing process. Although wood is used by only a small portion of the growers of tobacco purchased by our companies, we invest in programs to repopulate the trees used. For over the past ten years, one of our tobacco suppliers has provided its contacted growers in Brazil with millions of eucalyptus seedlings, creating tens of thousands of acres of woodlot plantings. Additionally, we continue to support Total Land Care, a Malawi-based non-governmental organization whose programs address concerns about Malawi tobacco production and improving farmer livelihoods in the region. In addition to Altria's Supplier Code of Conduct, through our Tobacco Leaders Program, we support growers who use innovative ideas to promote sustainable agriculture. The Tobacco Leaders Program is based on tobacco Good Agricultural Practices (GAP), which are: -Crop Management -Integrated Pest Management -Nutrient Management -Crop and Operation Management -Curing and Barn Management -Non-Tobacco Related Materials -On-Farm Tobacco Storage -Soil and water management -Agrochemical management

**Your role in the implementation**

Knowledge sharing  
Procurement

**Explanation of how you encourage implementation**

Our Tobacco Leaders Program also supports programs and research in tobacco-growing regions such as: •Farming mechanization/production innovation – developing equipment to reduce growers' production costs and their need for hand labor; •Tobacco curing efficiency – developing new curing methods that reduce the growers' cost of production and reduce negative environmental impact; •Seed variety research – developing new tobacco seed varieties to promote sustainable agriculture; •Universities & agricultural extension programs – educating tobacco growers about safety and crop management; and •Educational scholarships – supporting tobacco grower families as an investment in the future of tobacco production. Altria also participates in GAP Connections, a third-party entity, governed by a board of directors consisting of leaf buyers, tobacco manufacturers and grower organizations. GAP Connections oversees the Good Agricultural Practices standards which cover crop production practices, environmental practices and labor standards. GAP Connections provides resources to help growers be more sustainable with their land and the environment as well as how to comply with labor management practices which protect the rights of their workers and promote a safe working environment. All of our direct contracted growers must be

members of GAP Connections and attend annual GAP training meetings. As a member of the board, in 2017 we approached our industry peers, grower organizations and GAP Connections with an idea to develop a voluntary grower certification program with the goal of continuing to enhance the sustainability of our grower base and tobacco supply chain. As a result, the GAP Connections Certification Program was launched in January of 2018. For our growers, the voluntary program gives them a chance to distinguish themselves in the marketplace. The certification program provides access to monitoring, such as on-farm audits, which identify areas in need of improvement and a clear remediation plan that makes correcting deficiencies easier. We were very active in encouraging our growers to participate in 2018. In 2018, 25 percent of our grower base applied for certification, and of that, 98 percent of them achieved it. It is our goal that 100 percent of contracted growers will be GAP Connections certified by 2021.

**Climate change related benefit**

Emissions reductions (mitigation)

**Comment**

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**Management practice reference number**

MP10

**Management practice**

Seed variety selection

**Description of management practice**

Atria's Supplier Code of Conduct and Tobacco GAP Supplemental guidelines requires all domestic tobacco growers to implement resource management processes that protect air, soil and water, such as crop rotation, soil samples, use of resistant tobacco varieties and proper pesticide usage. It also encourages our international leaf suppliers to replenish trees used in the tobacco curing process. Although wood is used by only a small portion of the growers of tobacco purchased by our companies, we invest in programs to repopulate the trees used. For over the past ten years, one of our tobacco suppliers has provided its contacted growers in Brazil with millions of eucalyptus seedlings, creating tens of thousands of acres of woodlot plantings. Additionally, we continue to support Total Land Care, a Malawi-based non-governmental organization whose programs address concerns about Malawi tobacco production and improving farmer livelihoods in the region. In addition to Altria's Supplier Code of Conduct, through our Tobacco Leaders Program, we support growers who use innovative ideas to promote sustainable agriculture. The Tobacco Leaders Program is based on tobacco Good Agricultural Practices (GAP), which are: -Crop Management -Integrated Pest Management -Nutrient Management -Crop and Operation Management -Curing and Barn Management -Non-Tobacco Related Materials -On-Farm Tobacco Storage -Soil and water management -Agrochemical management

**Your role in the implementation**

Knowledge sharing

Procurement

**Explanation of how you encourage implementation**

Our Tobacco Leaders Program also supports programs and research in tobacco-growing regions such as: •Farming mechanization/production innovation – developing equipment to reduce growers' production costs and their need for hand labor; •Tobacco curing efficiency – developing new curing methods that reduce the growers' cost of production and reduce negative environmental impact; •Seed variety research – developing new tobacco seed varieties to promote sustainable agriculture; •Universities & agricultural extension programs – educating tobacco growers about safety and crop management; and •Educational scholarships – supporting tobacco grower families as an investment in the future of tobacco production. Altria also participates in GAP Connections, a third-party entity, governed by a board of directors consisting of leaf buyers, tobacco manufacturers and grower organizations. GAP Connections oversees the Good Agricultural Practices standards which cover crop production practices, environmental practices and labor standards. GAP Connections provides resources to help growers be more sustainable with their land and the environment as well as how to comply with labor management practices which protect the rights of their workers and promote a safe working environment. All of our direct contracted growers must be members of GAP Connections and attend annual GAP training meetings. As a member of the board, in 2017 we approached our industry peers, grower organizations and GAP Connections with an idea to develop a voluntary grower certification program with the goal of continuing to enhance the sustainability of our grower base and tobacco supply chain. As a result, the GAP Connections Certification Program was launched in January of 2018. For our growers, the voluntary program gives them a chance to distinguish themselves in the marketplace. The certification program provides access to monitoring, such as on-farm audits, which identify areas in need of improvement and a clear remediation plan that makes correcting deficiencies easier. We were very active in encouraging our growers to participate in 2018. In 2018, 25 percent of our grower base applied for certification, and of that, 98 percent of them achieved it. It is our goal that 100 percent of contracted growers will be GAP Connections certified by 2021.

**Climate change related benefit**

Emissions reductions (mitigation)

Reduced demand for pesticides (adaptation)

**Comment**

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**C-AC12.2b/C-FB12.2b/C-PF12.2b**

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**(C-AC12.2b/C-FB12.2b/C-PF12.2b) Do you collect information from your suppliers about the outcomes of any implemented agricultural/forest management practices you have encouraged?**

Yes

**C12.3**

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

Trade associations

Funding research organizations

**C12.3b**

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

Yes

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## C12.3c

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

#### Trade association

U.S. Chamber of Commerce

#### Is your position on climate change consistent with theirs?

Consistent

#### Please explain the trade association's position

"The climate is changing and humans are contributing to these changes. We believe that there is much common ground on which all sides of this discussion could come together to address climate change with policies that are practical, flexible, predictable, and durable. We believe in a policy approach that acknowledges the costs of action and inaction and the competitiveness of the U.S. economy. The Chamber believes that an effective climate policy should; Leverage the power of business; Maintain U.S. leadership in climate science; Embrace technology innovation; Aggressively pursue greater energy efficiency; Promote climate resilient infrastructure; Support trade in U.S. technologies and products; and Encourage international cooperation." (<https://www.uschamber.com/addressing-climate-change>)

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

While Altria's companies focus on a variety of public policy issues, our companies have not advocated for or against climate change policy. Moreover, our companies have not asked any third-party organizations to take any position on such standards.

#### Trade association

National Association of Manufacturers

#### Is your position on climate change consistent with theirs?

Consistent

#### Please explain the trade association's position

"Environment – Everyone wants clean water and clean air. Everyone needs a good job and an economy that delivers new opportunities and a better life. Manufacturers are proving we can deliver both." (<https://www.nam.org/issue/environment/>) "Energy - Manufacturers use one-third of all energy consumed in the United States, and we're committed to finding ways to reduce costs, promote sustainability and develop new energy solutions." (<https://www.nam.org/issue/energy/>)

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

While Altria's companies focus on a variety of public policy issues, our companies have not advocated for or against climate change policy. Moreover, our companies have not asked any third-party organizations to take any position on such standards.

## C12.3d

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

Yes

## C12.3f

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

Responsibility stems from our Mission & Values and is central to how we operate. Altria's Mission is to own and develop financially disciplined businesses that are leaders in responsibility providing adult tobacco and wine consumers with superior branded products. The Mission is supported by a number of Mission Strategies, one of which is to Drive Positive Change, through helping solve societal issues important to our businesses, stakeholders and communities. With this strategy in mind, we remain aware of societal expectations of our businesses regarding environmental-stewardship and transparency on climate-related issues. In addition to setting enterprise-wide long-term environmental goals, Altria supports leading non-profit organizations focused on water quality and conservation in our operating communities; sustainable agriculture in tobacco-growing regions; and nationwide litter prevention and clean-up.

Our approach to advocacy and engagement is grounded in maintaining compliance with the law and acting responsibly. Altria and its companies, like most major corporations, are members of various trade associations and public policy organizations focused on issues that affect our businesses. In developing and maintaining partnerships with these organizations, we expect that they will engage in effective and responsible advocacy within the political and public policy processes. We consider these organizations in the context of our Mission Strategies and our responsibility expectations. In the "Investing in Communities" section of [altria.com](http://altria.com), we disclose an extensive list of organizations to which Altria and its companies contribute, including many that are involved in public policy issues.

While we may not necessarily agree with every position taken by each organization we support, we do assess whether the intended use of a contribution is consistent with Altria's Mission & Values. If an organization we support adopts a public policy position that we do not agree with, we may voice our objection to it and choose to not participate in advocacy related to that subject. In some cases, we may actively lobby against the position of an organization of which we are a member.

While Altria's companies focus on a variety of public policy issues, our companies have not advocated for or against climate change policy. Moreover, our companies have not asked any third-party organizations to take any position on such standards.

## C12.4

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

**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

2018 Corporate Responsibility Progress Report.pdf

**Page/Section reference**

Appendix A: Environmental Supplement - Pages 56-60 Environmental Assurance Letter -Pages 61-63 GRI Content Index - Pages 74, 77-82

**Content elements**

Governance  
Strategy  
Risks & opportunities  
Emissions figures  
Emission targets  
Other metrics

**Comment**

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**Publication**

In voluntary communications

**Status**

Complete

**Attach the document**

Environmental Management - Altria.pdf

**Page/Section reference**

All

**Content elements**

Governance  
Strategy  
Risks & opportunities  
Emissions figures  
Emission targets  
Other metrics

**Comment**

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## C13. Other land management impacts

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### C-AC13.1/C-FB13.1/C-PF13.1

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**(C-AC13.1/C-FB13.1/C-PF13.1) Do you know if any of the management practices implemented on your own land disclosed in C-AC4.4a/C-FB4.4a/C-PF4.4a have other impacts besides climate change mitigation/adaptation?**

Yes

### C-AC13.1a/C-FB13.1a/C-PF13.1a

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**(C-AC13.1a/C-FB13.1a/C-PF13.1a) Provide details on those management practices that have other impacts besides climate change mitigation/adaptation and on your management response.**

**Management practice reference number**

MP1

**Overall effect**

Positive

**Which of the following has been impacted?**

Biodiversity

**Description of impact**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon. Vineyard management strategy includes utilizing best management practices with biodiversity considerations in mind. These management practices include but are not limited to utilizing cover crops to reduce soil erosion and promote beneficial insect habitats; planting trees besides streams to control runoff and erosion; and using natural methods to control weeds and pests.

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**Have you implemented any response(s) to these impacts?**

Yes

**Description of the response(s)**

Ste. Michelle is continuing to expand biodiversity considerations across its company-owned vineyards, and has a goal to increase the number of vineyards and wineries certified for biodiversity by a third party.

---

**Management practice reference number**

MP2

**Overall effect**

Positive

**Which of the following has been impacted?**

Water

Other, please specify (Energy use reduction )

**Description of impact**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon. Vineyard management strategy includes utilizing best management practices with efficient equipment use in mind. These management practices include but are not limited to using water-conserving nozzles on cellar hoses; re-using winery gray water; and conserving hot water and increasing efficiencies of tank heating systems. These practices help make progress against Altria's long-term environmental goals by reducing energy use as well as overall water use.

**Have you implemented any response(s) to these impacts?**

Yes

**Description of the response(s)**

Ste. Michelle is continuing to implement efficient equipment use across its vineyard and winery operations, and provides job specific training regarding environmental stewardship to employees. An example of this training includes a recent water saving initiatives at one of Ste. Michelle's wineries. Wine grapes consume water not just in the form of irrigation, but through the grape cleaning process during harvesting. To reduce water consumption, newer, more efficient cleaning nozzles coupled with increased employee awareness of water consumption during this process has helped this winery achieve a 25% reduction in water use compared to the prior year's harvest.

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**Management practice reference number**

MP3

**Overall effect**

Positive

**Which of the following has been impacted?**

Water

Other, please specify (Energy use reduction)

**Description of impact**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon. Vineyard management strategy includes utilizing best management practices with equipment maintenance and calibration in mind. An example of this management practice includes the implementation of enhanced heat exchangers to reduce water usage in fermentation cellars at some of Ste. Michelle's wineries.

**Have you implemented any response(s) to these impacts?**

Yes

**Description of the response(s)**

Ste. Michelle continues to implement equipment maintenance and calibration as part of its vineyard management strategy across its operations.

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**Management practice reference number**

MP4

**Overall effect**

Positive

**Which of the following has been impacted?**

Soil

Water

**Description of impact**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon. Vineyard management strategy includes utilizing best management practices with fertilizer management in mind. These management practices include but are not limited to utilizing cover crops to reduce soil erosion and promote beneficial insect habitats, and planting trees besides streams to control runoff and erosion.

**Have you implemented any response(s) to these impacts?**

Yes

**Description of the response(s)**

Ste. Michelle is continuing to expand biodiversity considerations across its company-owned vineyards, and has a goal to increase the number of vineyards and wineries certified for biodiversity by a third party. Fertilizer management practices are a key component of expanding biodiversity certification across its company-owned vineyards.

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**Management practice reference number**

MP5

**Overall effect**

Positive

**Which of the following has been impacted?**

Biodiversity

Soil

Water

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Yield

**Description of impact**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon. Vineyard management strategy includes utilizing best management practices with integrated pest management in mind. These integrated pest management techniques include using cover crops specifically designed to attract certain insects which feed on harmful bugs and fungi; maintaining and expanding the registered virus-free mother block of disease-resistant wine grape vines; and increasing the use of environmentally friendly pest control agents.

**Have you implemented any response(s) to these impacts?**

Yes

**Description of the response(s)**

Ste. Michelle continues to implement integrated pest management practices across its company-owned vineyards.

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**Management practice reference number**

MP6

**Overall effect**

Positive

**Which of the following has been impacted?**

Biodiversity

Soil

Water

Yield

**Description of impact**

Ste. Michelle has had a long history of taking a leading role in engaging with other wine grape growers. In 2007, Ste. Michelle spearheaded the creation of Vinewise in conjunction with the Washington Association of Wine Grape Growers to provide wineries with information and tools to help evaluate business practices and implement sustainable management strategies. Vinewise includes knowledge sharing including but not limited to pest management; soil management; vineyard site selection; and water management.

**Have you implemented any response(s) to these impacts?**

Yes

**Description of the response(s)**

Ste. Michelle has integrated the Vinewise self-assessment tool into its contract grower relationships to help improve grower practices.

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**Management practice reference number**

MP7

**Overall effect**

Positive

**Which of the following has been impacted?**

Biodiversity

Soil

Water

Yield

**Description of impact**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon. Vineyard management strategy includes utilizing best management practices with integrated pest management in mind. These integrated pest management techniques include using cover crops specifically designed to attract certain insects which feed on harmful bugs and fungi; maintaining and expanding the registered virus-free mother block of disease-resistant wine grape vines; and increasing the use of environmentally friendly pest control agents.

**Have you implemented any response(s) to these impacts?**

Yes

**Description of the response(s)**

Ste. Michelle continues to implement integrated pest management practices across its company-owned vineyards.

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**Management practice reference number**

MP8

**Overall effect**

Positive

**Which of the following has been impacted?**

Water

**Description of impact**

Ste. Michelle harvests grapes from more than 3,900 company-owned acres in Washington, California and Oregon. As part of vineyard management strategy, timing of operations, such as irrigation systems to account for daily precipitation and hourly temperature conditions, maximizes efficient water consumption and energy use on the vineyard.

**Have you implemented any response(s) to these impacts?**

Yes

**Description of the response(s)**

Both decreased water consumption and energy use from the timing of operations drive operating cost reductions for Ste. Michelle's vineyards, and continue to be implemented across company-owned acreage.

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**Management practice reference number**

MP9

**Overall effect**

Positive

**Which of the following has been impacted?**

Other, please specify (Packaging and waste reduction)

**Description of impact**

Ste. Michelle's wineries and vineyards actively seek ways to reduce waste across their operations. In addition to on-site waste reduction and recycling, Ste. Michelle actively seeks ways to reduce packaging resources while maintaining product quality, including the use of lighter weight EcoBottles for some of its wines as well as alternative packaging such as kegs and aluminum cans for select products.

**Have you implemented any response(s) to these impacts?**

Yes

**Description of the response(s)**

Ste. Michelle's ongoing efforts to reduce waste helps drive progress against Altria's enterprise-wide long-term environmental goal to reduce waste sent to landfill by 25% through 2025.

**C-AC13.2/C-FB13.2/C-PF13.2****(C-AC13.2/C-FB13.2/C-PF13.2) Do you know if any of the management practices mentioned in C-AC12.2a/C-FB12.2a/C-PF12.2a that were implemented by your suppliers have other impacts besides climate change mitigation/adaptation?**

Yes

**C-AC13.2a/C-FB13.2a/C-PF13.2a****(C-AC13.2a/C-FB13.2a/C-PF13.2a) Provide details of those management practices implemented by your suppliers that have other impacts besides climate change mitigation/adaptation.****Management practice reference number**

MP1

**Overall effect**

Positive

**Which of the following has been impacted?**

Biodiversity

**Description of impacts**

Ste. Michelle engages its contract growers in Washington State to assess their growing operations and requires growers to complete a yearly survey through Vinewise. The survey asks growers to report on Pest, Disease and Weed Management Practices; Integrated Pest Management; Timing of Farming Operations; Fertilizer Management; and Biodiversity considerations among other business and labor-related practices. In 2007, Ste. Michelle spearheaded the creation of Vinewise in conjunction with the Washington Association of Wine Grape Growers to provide wineries with information and tools to help evaluate business practices and implement sustainable management strategies. Through this industry leadership, Ste. Michelle has continued to encourage responsible viticulture practices across its industry. In addition to the emissions reduction benefits of implementing the practices measured through the Vinewise survey tool, these practices each provide biodiversity, soil, water and yield benefits.

**Have any response to these impacts been implemented?**

Yes

**Description of the response(s)**

By assessing contact growers annually through the Vinewise survey tool, Ste. Michelle encourages its growers to continue to implement these management practices. Through this encouragement, Ste. Michelle along with its growers continues to protect the region's reputation for high-quality wines and environmentally responsible production practices.

**Management practice reference number**

MP2

**Overall effect**

Positive

**Which of the following has been impacted?**

Soil

Water

**Description of impacts**

Ste. Michelle engages its contract growers in Washington State to assess their growing operations and requires growers to complete a yearly survey through Vinewise. The survey asks growers to report on Pest, Disease and Weed Management Practices; Integrated Pest Management; Timing of Farming Operations; Fertilizer Management; and Biodiversity considerations among other business and labor-related practices. In 2007, Ste. Michelle spearheaded the creation of Vinewise in conjunction with the Washington Association of Wine Grape Growers to provide wineries with information and tools to help evaluate business practices and implement sustainable management strategies. Through this industry leadership, Ste. Michelle has continued to encourage responsible viticulture practices across its industry. In addition to the emissions reduction benefits of implementing the practices measured through the Vinewise survey tool, these practices each provide biodiversity, soil, water and yield benefits.

**Have any response to these impacts been implemented?**

Yes

**Description of the response(s)**

By assessing contact growers annually through the Vinewise survey tool, Ste. Michelle encourages its growers to continue to implement these management practices. Through this encouragement, Ste. Michelle along with its growers continues to protect the region's reputation for high-quality wines and environmentally responsible production practices.

**Management practice reference number**

MP3

**Overall effect**

Positive

**Which of the following has been impacted?**

Biodiversity  
Soil  
Water  
Yield

**Description of impacts**

Ste. Michelle engages its contract growers in Washington State to assess their growing operations and requires growers to complete a yearly survey through Vinewise. The survey asks growers to report on Pest, Disease and Weed Management Practices; Integrated Pest Management; Timing of Farming Operations; Fertilizer Management; and Biodiversity considerations among other business and labor-related practices. In 2007, Ste. Michelle spearheaded the creation of Vinewise in conjunction with the Washington Association of Wine Grape Growers to provide wineries with information and tools to help evaluate business practices and implement sustainable management strategies. Through this industry leadership, Ste. Michelle has continued to encourage responsible viticulture practices across its industry. In addition to the emissions reduction benefits of implementing the practices measured through the Vinewise survey tool, these practices each provide biodiversity, soil, water and yield benefits.

**Have any response to these impacts been implemented?**

Yes

**Description of the response(s)**

By assessing contact growers annually through the Vinewise survey tool, Ste. Michelle encourages its growers to continue to implement these management practices. Through this encouragement, Ste. Michelle along with its growers continues to protect the region's reputation for high-quality wines and environmentally responsible production practices.

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**Management practice reference number**

MP4

**Overall effect**

Positive

**Which of the following has been impacted?**

Biodiversity  
Soil  
Water  
Yield

**Description of impacts**

Ste. Michelle engages its contract growers in Washington State to assess their growing operations and requires growers to complete a yearly survey through Vinewise. The survey asks growers to report on Pest, Disease and Weed Management Practices; Integrated Pest Management; Timing of Farming Operations; Fertilizer Management; and Biodiversity considerations among other business and labor-related practices. In 2007, Ste. Michelle spearheaded the creation of Vinewise in conjunction with the Washington Association of Wine Grape Growers to provide wineries with information and tools to help evaluate business practices and implement sustainable management strategies. Through this industry leadership, Ste. Michelle has continued to encourage responsible viticulture practices across its industry. In addition to the emissions reduction benefits of implementing the practices measured through the Vinewise survey tool, these practices each provide biodiversity, soil, water and yield benefits.

**Have any response to these impacts been implemented?**

Yes

**Description of the response(s)**

By assessing contact growers annually through the Vinewise survey tool, Ste. Michelle encourages its growers to continue to implement these management practices. Through this encouragement, Ste. Michelle along with its growers continues to protect the region's reputation for high-quality wines and environmentally responsible production practices.

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**Management practice reference number**

MP5

**Overall effect**

Positive

**Which of the following has been impacted?**

Water

**Description of impacts**

Ste. Michelle engages its contract growers in Washington State to assess their growing operations and requires growers to complete a yearly survey through Vinewise. The survey asks growers to report on Pest, Disease and Weed Management Practices; Integrated Pest Management; Timing of Farming Operations; Fertilizer Management; and Biodiversity considerations among other business and labor-related practices. In 2007, Ste. Michelle spearheaded the creation of Vinewise in conjunction with the Washington Association of Wine Grape Growers to provide wineries with information and tools to help evaluate business practices and implement sustainable management strategies. Through this industry leadership, Ste. Michelle has continued to encourage responsible viticulture practices across its industry. In addition to the emissions reduction benefits of implementing the practices measured through the Vinewise survey tool, these practices each provide biodiversity, soil, water and yield benefits.

**Have any response to these impacts been implemented?**

Yes

**Description of the response(s)**

By assessing contact growers annually through the Vinewise survey tool, Ste. Michelle encourages its growers to continue to implement these management practices. Through this encouragement, Ste. Michelle along with its growers continues to protect the region's reputation for high-quality wines and environmentally responsible production practices.

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**Management practice reference number**

MP6

**Overall effect**

Positive

**Which of the following has been impacted?**

Soil  
Yield

**Description of impacts**

Atria's Supplier Code of Conduct and Tobacco GAP Supplemental guidelines requires all domestic tobacco growers to implement resource management processes that protect air, soil and water, such as crop rotation, soil samples, use of resistant tobacco varieties and proper pesticide usage. It also encourages our international leaf suppliers to replenish trees used in the tobacco curing process. In addition to Altria's Supplier Code of Conduct, through our Tobacco Leaders Program, we support growers who use innovative ideas to promote sustainable agriculture. In addition to the emissions reduction benefits of implementing these management practices, crop rotation, fertilizer management, integrated pest management, land use change and seed variety selection all have significant benefits to biodiversity, soil health and water quality in tobacco growing regions both domestically and internationally.

**Have any response to these impacts been implemented?**

Yes

**Description of the response(s)**

Through these strategies encouraging both domestic and international growers to undertake management practices focused on crop rotation; fertilizer management; integrated pest management; land use change; and seed variety selection, the number of growers implementing these practices continues to increase. To continue to foster sustainable agricultural practices in the tobacco value chain, Altria's funding of the National Fish and Wildlife Foundation's programs supports work in Lancaster County, Pennsylvania and north-central Tennessee to increase the use of no-till tobacco farming amongst growers in these regions. Through these programs, interested contracted growers can more easily convert to no-till tobacco for the health of the environment and sustainability of their crop, while benefiting from cost and labor savings. Internationally, although wood is used by only a small portion of the growers of tobacco purchased by our companies for curing, we invest in programs to repopulate the trees used by these growers. For over the past ten years, one of our tobacco suppliers has provided its contracted growers in Brazil with millions of eucalyptus seedlings, creating tens of thousands of acres of woodlot plantings. Additionally, we continue to support Total Land Care, a Malawi-based non-governmental organization whose programs address concerns about Malawi tobacco production, including sustainable tobacco curing, and improving farmer livelihoods in the region. These initiatives help continue to foster sustainable land use management in the international tobacco value chain, as more international growers receive these resources.

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**Management practice reference number**

MP7

**Overall effect**

Positive

**Which of the following has been impacted?**

Soil  
Water

**Description of impacts**

Atria's Supplier Code of Conduct and Tobacco GAP Supplemental guidelines requires all domestic tobacco growers to implement resource management processes that protect air, soil and water, such as crop rotation, soil samples, use of resistant tobacco varieties and proper pesticide usage. It also encourages our international leaf suppliers to replenish trees used in the tobacco curing process. In addition to Altria's Supplier Code of Conduct, through our Tobacco Leaders Program, we support growers who use innovative ideas to promote sustainable agriculture. In addition to the emissions reduction benefits of implementing these management practices, crop rotation, fertilizer management, integrated pest management, land use change and seed variety selection all have significant benefits to biodiversity, soil health and water quality in tobacco growing regions both domestically and internationally.

**Have any response to these impacts been implemented?**

Yes

**Description of the response(s)**

Through these strategies encouraging both domestic and international growers to undertake management practices focused on crop rotation; fertilizer management; integrated pest management; land use change; and seed variety selection, the number of growers implementing these practices continues to increase. To continue to foster sustainable agricultural practices in the tobacco value chain, Altria's funding of National Fish and Wildlife Foundation's programs supports work in Lancaster County, Pennsylvania and north-central Tennessee to increase the use of no-till tobacco farming amongst growers in these regions. Through these programs, interested contracted growers can more easily convert to no-till tobacco for the health of the environment and sustainability of their crop, while benefiting from cost and labor savings. Internationally, although wood is used by only a small portion of the growers of tobacco purchased by our companies for curing, we invest in programs to repopulate the trees used by these growers. For over the past ten years, one of our tobacco suppliers has provided its contracted growers in Brazil with millions of eucalyptus seedlings, creating tens of thousands of acres of woodlot plantings. Additionally, we continue to support Total Land Care, a Malawi-based non-governmental organization whose programs address concerns about Malawi tobacco production, including sustainable tobacco curing, and improving farmer livelihoods in the region. These initiatives help continue to foster sustainable land use management in the international tobacco value chain, as more international growers receive these resources.

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**Management practice reference number**

MP8

**Overall effect**

Positive

**Which of the following has been impacted?**

Biodiversity  
Soil  
Water  
Yield

**Description of impacts**

Atria's Supplier Code of Conduct and Tobacco GAP Supplemental guidelines requires all domestic tobacco growers to implement resource management processes that protect air, soil and water, such as crop rotation, soil samples, use of resistant tobacco varieties and proper pesticide usage. It also encourages our international leaf suppliers to replenish trees used in the tobacco curing process. In addition to Altria's Supplier Code of Conduct, through our Tobacco Leaders Program, we support growers who use innovative ideas to promote sustainable agriculture. In addition to the emissions reduction benefits of implementing these management practices, crop rotation, fertilizer management, integrated pest management, land use change and seed variety selection all have significant benefits to biodiversity, soil health and water quality in tobacco growing regions both domestically and internationally.

**Have any response to these impacts been implemented?**

Yes

**Description of the response(s)**

Through these strategies encouraging both domestic and international growers to undertake management practices focused on crop rotation; fertilizer management; integrated pest management; land use change; and seed variety selection, the number of growers implementing these practices continues to increase. To continue to foster sustainable agricultural practices in the tobacco value chain, Altria's funding of National Fish and Wildlife Foundation's programs supports work in Lancaster County, Pennsylvania and north-central Tennessee to increase the use of no-till tobacco farming amongst growers in these regions. Through these programs, interested contracted growers can more easily convert to no-till tobacco for the health of the environment and sustainability of their crop, while benefiting from cost and labor savings. Internationally, although wood is used by only a small portion of the growers of tobacco purchased by our companies for curing, we invest in programs to repopulate the trees used by these growers. For over the past ten years, one of our tobacco suppliers has provided its contracted growers in Brazil with millions of eucalyptus seedlings, creating tens of thousands of acres of woodlot plantings. Additionally, we continue to support Total Land Care, a Malawi-based non-governmental organization whose programs address concerns about Malawi tobacco production, including sustainable tobacco curing, and improving farmer livelihoods in the region. These initiatives help continue to foster sustainable land use management in the international tobacco value chain, as more international growers receive these resources.

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**Management practice reference number**

MP9

**Overall effect**

Positive

**Which of the following has been impacted?**

Biodiversity

Soil

Water

Yield

**Description of impacts**

Altria's Supplier Code of Conduct and Tobacco GAP Supplemental guidelines requires all domestic tobacco growers to implement resource management processes that protect air, soil and water, such as crop rotation, soil samples, use of resistant tobacco varieties and proper pesticide usage. It also encourages our international leaf suppliers to replenish trees used in the tobacco curing process. In addition to Altria's Supplier Code of Conduct, through our Tobacco Leaders Program, we support growers who use innovative ideas to promote sustainable agriculture. In addition to the emissions reduction benefits of implementing these management practices, crop rotation, fertilizer management, integrated pest management, land use change and seed variety selection all have significant benefits to biodiversity, soil health and water quality in tobacco growing regions both domestically and internationally.

**Have any response to these impacts been implemented?**

Yes

**Description of the response(s)**

Through these strategies encouraging both domestic and international growers to undertake management practices focused on crop rotation; fertilizer management; integrated pest management; land use change; and seed variety selection, the number of growers implementing these practices continues to increase. To continue to foster sustainable agricultural practices in the tobacco value chain, Altria's funding of National Fish and Wildlife Foundation's programs supports work in Lancaster County, Pennsylvania and north-central Tennessee to increase the use of no-till tobacco farming amongst growers in these regions. Through these programs, interested contracted growers can more easily convert to no-till tobacco for the health of the environment and sustainability of their crop, while benefiting from cost and labor savings. Internationally, although wood is used by only a small portion of the growers of tobacco purchased by our companies for curing, we invest in programs to repopulate the trees used by these growers. For over the past ten years, one of our tobacco suppliers has provided its contracted growers in Brazil with millions of eucalyptus seedlings, creating tens of thousands of acres of woodlot plantings. Additionally, we continue to support Total Land Care, a Malawi-based non-governmental organization whose programs address concerns about Malawi tobacco production, including sustainable tobacco curing, and improving farmer livelihoods in the region. These initiatives help continue to foster sustainable land use management in the international tobacco value chain, as more international growers receive these resources.

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**Management practice reference number**

MP10

**Overall effect**

Positive

**Which of the following has been impacted?**

Yield

**Description of impacts**

Altria's Supplier Code of Conduct and Tobacco GAP Supplemental guidelines requires all domestic tobacco growers to implement resource management processes that protect air, soil and water, such as crop rotation, soil samples, use of resistant tobacco varieties and proper pesticide usage. It also encourages our international leaf suppliers to replenish trees used in the tobacco curing process. In addition to Altria's Supplier Code of Conduct, through our Tobacco Leaders Program, we support growers who use innovative ideas to promote sustainable agriculture. In addition to the emissions reduction benefits of implementing these management practices, crop rotation, fertilizer management, integrated pest management, land use change and seed variety selection all have significant benefits to biodiversity, soil health and water quality in tobacco growing regions both domestically and internationally.

**Have any response to these impacts been implemented?**

Yes

**Description of the response(s)**

Through these strategies encouraging both domestic and international growers to undertake management practices focused on crop rotation; fertilizer management; integrated pest management; land use change; and seed variety selection, the number of growers implementing these practices continues to increase. To continue to foster sustainable agricultural practices in the tobacco value chain, Altria's funding of National Fish and Wildlife Foundation's programs supports work in Lancaster County, Pennsylvania and north-central Tennessee to increase the use of no-till tobacco farming amongst growers in these regions. Through these programs, interested contracted growers can more easily convert to no-till tobacco for the health of the environment and sustainability of their crop, while benefiting from cost and labor savings. Internationally, although wood is used by only a small portion of the growers of tobacco purchased by our companies for curing, we invest in programs to repopulate the trees used by these growers. For over the past ten years, one of our tobacco suppliers has provided its contracted growers in Brazil with millions of eucalyptus seedlings, creating tens of thousands of acres of woodlot plantings. Additionally, we continue to support Total Land Care, a Malawi-based non-governmental organization whose programs address concerns about Malawi tobacco production, including sustainable tobacco curing, and improving farmer livelihoods in the region. These initiatives help continue to foster sustainable land use management in the international tobacco value chain, as more international growers receive these resources.

C-FI

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

C14.1

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

	Job title	Corresponding job category
Row 1	Vice Chairman and Chief Financial Officer	Chief Financial Officer (CFO)

Submit your response

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In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

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

Please confirm below

I have read and accept the applicable Terms