

Module: Introduction

Page: Introduction

0.1

Introduction

Please give a general description and introduction to your organization

Molson Coors' Board and Executive Leadership Team have identified world class corporate responsibility performance as one of the four drivers of our global business strategy. Consistent with this commitment we are responding to the Carbon Disclosure Project for the sixth year. As a major global brewer, we are committed to cost effective improvements in our operations that result in more efficient use of energy, reductions in GHG emissions and improvements in our environmental performance.

Molson Coors is a leading brewer in Canada through Molson Coors Canada, in the UK through Molson Coors (United Kingdom & Ireland), and in the United States (MillerCoors). We also have a growing presence in India through our Molson Coors International operations. The latter also markets beer in many other markets around the world.

In 2008, Molson Coors and SABMiller PLC combined their US and Puerto Rico operations to form a joint venture called MillerCoors LLC. For financial reporting under US accounting standards, MillerCoors LLC is accounted for by Molson Coors under the equity method. While MillerCoors' revenues and expenses are not reported in Molson Coors' consolidated results, Molson Coors does receive and report 42% of the net profits of MillerCoors. For our CDP reporting, we include UK and Canada emissions plus 42% of MillerCoors emissions. (Note: For intensity calculations, emissions/reported profit are used, along with emissions/revenues adjusted to include 42% of MillerCoors revenues which are not included in our financial statements per US accounting rules.)

In June of 2012, Molson Coors acquired the Starbev group comprising of 9 breweries throughout Central and Eastern Europe. As a result of the acquisition, the UK operations and the former Starbev operations have been grouped into a single European Business Unit as of January 1st, 2013. Molson Coors policy is to incorporate environmental data from acquisitions starting the first full calendar year. As such, the GHG data from the former Starbev breweries is not included in this 2012 submission but will be included the following year. The analysis of risks and opportunities, however, does consider the new structure.

Molson Coors has evaluated and disclosed climate change risk to investors in our 10-K.

0.2**Reporting Year**

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed
Sun 01 Jan 2012 - Mon 31 Dec 2012

0.3**Country list configuration**

Please select the countries for which you will be supplying data. This selection will be carried forward to assist you in completing your response

Select country
Canada
United States of America
United Kingdom
India

0.4**Currency selection**

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

USD(\$)

0.6

Modules

As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors, companies in the oil and gas industry and companies in the information technology and telecommunications sectors should complete supplementary questions in addition to the main questionnaire.

If you are in these sectors (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will not appear below but will automatically appear in the navigation bar when you save this page. If you want to query your classification, please email respond@cdproject.net.

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see <https://www.cdproject.net/en-US/Programmes/Pages/More-questionnaires.aspx>.

Module: Management [Investor]

Page: 1. Governance

1.1

Where is the highest level of direct responsibility for climate change within your company?

Individual/Sub-set of the Board or other committee appointed by the Board

1.1a

Please identify the position of the individual or name of the committee with this responsibility

As a committee appointed by the board, the Corporate Responsibility Steering Group (CRSG) has been established to take responsibility for climate change and other sustainability issues within Molson Coors. The CRSG is comprised of members of the executive leadership team (the highest level of management within the organisation) and nominated senior management representatives from each business unit. As a member of the CRSG and executive leadership team, the Global Chief Legal Officer is accountable for reporting progress to the board supported by the Audit Committee of the Board of Directors which independently reviews and approves the overall Corporate Responsibility Plan bi-annually. The CR Plan includes action on GHG mitigation and climate risk management.

1.2

Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

1.2a

Please complete the table

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator
Board/Executive board	Monetary reward	i) Energy used per hectolitre of production (MJ/hl) as both a cost and GHG intensity indicator. ii) A water consumption per hl of production metric as sustainability and climate risk indicator. iii) Performance in external benchmarking indices such as CDP and DJSI to ensure we are meeting stakeholder expectations on climate change and sustainability.
Corporate executive team	Monetary reward	i) Energy used per hectolitre of production (MJ/hl) as both a cost and GHG intensity indicator. ii) A water consumption per hl of production metric as sustainability and climate risk indicator. iii) Performance in external benchmarking indices such as CDP and DJSI to ensure we are meeting stakeholder expectations on climate change and sustainability.
Chief Executive Officer (CEO)	Monetary reward	i) Energy used per hectolitre of production (MJ/hl) as both a cost and GHG intensity indicator. ii) A water consumption per hl of production metric as sustainability and climate risk indicator. iii) Performance in external benchmarking indices such as CDP and DJSI to ensure we are meeting stakeholder expectations on climate change and sustainability.
Chief Operating Officer (COO)	Monetary reward	i) Energy used per hectolitre of production (MJ/hl) as both a cost and GHG intensity indicator. ii) A water consumption per hl of production metric as sustainability and climate risk indicator. iii) Performance in external benchmarking indices such as CDP and DJSI to ensure we are meeting stakeholder expectations on climate change and sustainability.
Management group	Monetary reward	i) Energy used per hectolitre of production (MJ/hl) as both a cost and GHG intensity indicator. ii) A water consumption per hl of production metric as sustainability and climate risk indicator. iii) Performance in external benchmarking indices such as CDP and DJSI to ensure we are meeting stakeholder expectations on climate change and sustainability.
Business unit managers	Monetary reward	i) Energy used per hectolitre of production (MJ/hl) as both a cost and GHG intensity indicator. ii) A water consumption per hl of production metric as sustainability and climate risk indicator. iii) Performance in external benchmarking indices such as CDP and DJSI to ensure we are meeting stakeholder expectations on climate change and sustainability.
Energy managers	Monetary	i) Energy used per hectolitre of production (MJ/hl) as both a cost and GHG intensity indicator. ii) A water

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator
	reward	consumption per hl of production metric as sustainability and climate risk indicator.
Other: Environment/sustainability managers	Monetary reward	i) Energy used per hectolitre of production (MJ/hl) as both a cost and GHG intensity indicator. ii) A water consumption per hl of production metric as sustainability and climate risk indicator.
Facility managers	Monetary reward	i) Energy used per hectolitre of production (MJ/hl) as both a cost and GHG intensity indicator. ii) A water consumption per hl of production metric as sustainability and climate risk indicator.
Process operation managers	Monetary reward	i) Energy used per hectolitre of production (MJ/hl) as both a cost and GHG intensity indicator. ii) A water consumption per hl of production metric as sustainability and climate risk indicator.
Public affairs managers	Monetary reward	i) Energy used per hectolitre of production (MJ/hl) as both a cost and GHG intensity indicator. ii) A water consumption per hl of production metric as sustainability and climate risk indicator. iii) Performance in external benchmarking indices such as CDP and DJSI to ensure we are meeting stakeholder expectations on climate change and sustainability.
Risk managers	Monetary reward	i) Energy used per hectolitre of production (MJ/hl) as both a cost and GHG intensity indicator. ii) A water consumption per hl of production metric as sustainability and climate risk indicator. iii) Performance in external benchmarking indices such as CDP and DJSI to ensure we are meeting stakeholder expectations on climate change and sustainability.
All employees	Recognition (non-monetary)	i) Energy used per hectolitre of production (MJ/hl) as both a cost and GHG intensity indicator. ii) A water consumption per hl of production metric as sustainability and climate risk indicator.

Page: 2. Strategy

2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

2.1a

Please provide further details

i) The scope of process - The Company's Enterprise Risk Management (ERM) process identifies risks and opportunities from climate change. The scope of the risk review covers our entire business value chain allowing us to identify and respond to risks that may arise in areas of the value chain outside of our direct operations. As a result of this risk evaluation we have taken action to reduce risk exposure in our own operations as well as in our supply chain. With respect to the latter, we put in place sustainable sourcing programs and continue to work to understand the potential longer term impacts of climate change on our extended supply chain through collaboration with external research agencies and academic institutions.

ii) How risks/opportunities are assessed at a company level – Climate risks and opportunities are identified and assessed as part of our Enterprise Risk Management system (ERM), which operates at several levels (asset, business unit, enterprise). A business unit level, the senior manager responsible for ERM interviews all the executives and compiles a report of identified risks & opportunities, including those related to climate. The process identifies climate risks and opportunities by means of subject matter knowledge of functional specialists, management systems reviews, interaction with trade associations, monitoring of political and media issues (through a third party) and engagement with stakeholders (including regulators, government departments, local community groups and NGOs). The business unit CEO reviews and approves the report, after which it is disseminated to all the CEO's direct reports.

A summary of the approved business unit report is submitted to the Enterprise Leadership Team (ELT) and the Director, Global Risk Management interviews every member of the ELT to obtain their input on strategic risk and opportunity changes, trends and priorities. Following interviews with each ELT member, one document is produced which the CEO reviews and approves. This document is then approved by the ELT and taken to the Board of Directors for their approval. The Board reviews the risks and opportunities report twice a year, once through the Audit Committee and a second time through a Strategic Planning Session. Every risk has an owner who is accountable for mitigation plans. Priorities are established at company and local level based upon magnitude and the time horizon of each risk.

The Company also has a Chief Ethics and Compliance Officer responsible for ensuring that all business units have the appropriate processes in place to identify and mitigate ethics and compliance risks. In addition, the Global Chief Legal Officer and Global Chief Supply Chain Officer chair the Corporate Responsibility Steering Group which identifies corporate responsibility risks and opportunities and assesses how to manage risks from GHG emissions from our operations and identify cost-effective mitigation opportunities.

iii) How risks/opportunities are assessed at an asset level - Risks & opportunities are identified at asset level as part of the ERM process and use the same sources as described for the identification process at business unit level: subject matter knowledge of functional specialists, management systems reviews, interaction with trade associations, monitoring of political and media issues (through a third party) and engagement with stakeholders (including regulators, government departments, local community groups and NGOs).

iv) The frequency of monitoring – Molson Coors has personnel responsible for Enterprise Risk Management that are continuously monitoring risks and opportunities related to climate change in the course of their every-day work. The more formal ERM process is done twice a year at all levels. The Board reviews the global document twice a year, once through the Audit Committee and a second time through a Strategic Planning Session.

v) Criteria for determining materiality/priorities – Molson Coors uses risk heat maps and sensitivity/stress analysis to determine frequency, severity and velocity of risks (see ERM Heat Map attached). The ERM process categorizes all risks on a 4x4 matrix of frequency and severity with 16 points being the highest. Severity is measured in terms of the effect to MCBC's market capitalization. By focusing on Market Cap, this process allows us to consider the effect of risks to both business/financial performance and our reputation with stakeholders. Mitigation efforts are prioritized for the highest risks. All areas participate: Sales, Marketing, Procurement (working with Action Sustainability) Finance, IT, HR, Internal Audit, Legal, Public Affairs, Ethics and Compliance, each Business Unit, including Corporate and International.

vi) To whom are the results reported – The bottom-up process ensures that all asset level risks and opportunities are reported to the Business Unit CEO and the results of the ERM process reported back downwards. Risks and opportunities are then summarized and reported to the Executive Leadership Team, including the

CEO. Finally, the results are reported to the Board of Directors through the Audit Committee and through the Strategy Planning Session.

2.2

Is climate change integrated into your business strategy?

Yes

2.2a

Please describe the process and outcomes

1. **How the strategy has been influenced?** – Climate Change undoubtedly represents both risks and opportunities for Molson Coors in relation to regulation designed to mitigate GHGs, changes to the commercial environment, security of our supply chain and physical impacts to our assets. As a result, we have adapted our strategy to better monitor climate risks and opportunities, reduce our exposure and contribution to climate change (mitigation) and work with our supply chain to understand and adapt to the impacts of climate change. An example of this influence is the modification of our global Procurement Strategy to demand of our suppliers standards related to transparency and performance on sustainability, as well as training of Procurement personnel on the standards.
2. **What aspects of climate change have influenced the strategy?** – Climate change has had a significant impact on Molson Coors short term and long term strategy. As a leading global brewer, climate change impacts Molson Coors in many different ways; from changing consumer attitudes and customer requirements to changes in water availability and risks to agricultural raw materials. To be more specific, the risk of greater stress on water resources for both our brewery operations and the supply of agricultural raw materials such as barley and hops has been the most influencing factor to date.
3. **The most important components of the short term strategy that have been influenced by climate change?**
 - i. The Enterprise has annual energy and GHG reduction objectives that drive capital investment and operational improvements throughout the organization. Last year, over \$ 4.3 million was spent on targeted energy efficiency and GHG mitigation.
 - ii. MCBC has developed a Sustainable Procurement Programme integrating climate and water criteria into purchasing standards and training personnel on sustainability. As part of this approach we have reviewed a number of supplier locations using data from the WBCSD water tool, including agricultural and packaging suppliers. In the US we have worked with growers and RTI International to map water stress in our barley supply chain. Where appropriate we look for specific sustainability projects to work with our suppliers on, that will either manage risk or are an opportunity. For example in the UK we have partnered with charity LEAF to support our barley growers around water, while in the US we continue engaging with growers to drive water efficiency.
 - iii. Risks to our water supply have caused us to undertake an in-depth analysis of each production site's exposure using the WBCSD Water Tool World Resources Institute Aqueduct tool and 3rd party risk assessments, as well as developing our own Water Risk Index methodology.
4. **The most important components of the long term strategy that have been influenced by climate change?**

1. The Company has been working towards ambitious GHG, energy and water reduction targets that it set itself in 2009 to achieve in 2012. This was done to mitigate exposure to climate change regulatory risk, reduce cost and adapt to greater expectations related to sustainability on behalf of stakeholders and consumers. We have reduced our GHG intensity by 24% from a 2008 baseline as a result and have since adopted challenging targets for the 2013-2020 period. The long-range targets build on achievements to date by aspiring to a further 25% reduction in energy intensity, a 20% savings in water intensity and a 15% reduction in GHG intensity by 2020 from a 2011 baseline.
2. In long range planning for asset care we including climate change risks and opportunities into the decision making through our Enterprise Risk Management Process. This has conditioned our plans for capital expenditure to maintain and upgrade our breweries, an example of which is a plan to reduce energy use and GHG emissions at our brewery in Burton through capture of biogas from processes.
3. Our product development cycle has been developed to include a number of stage gates and at each stage the sustainability impact (including climate change and water risk) of the project is evaluated to help guide our future portfolio footprint.
4. The evaluation of potential greenfield breweries accounts for water risk to our operations and to our supply chain in making decisions about physical location and infrastructure.
5. Additionally to help manage the risks from those GHG emissions from our JV operations and identify cost-effective mitigation opportunities, MillerCoors participates in the U.S. Environmental Protection Agency (EPA)'s Climate Leaders program. Through the Climate Leaders program, MillerCoors is committed to:
 - i. Develop a corporate-wide GHG inventory of the six major greenhouse gases and report progress annually based on detailed EPA protocols and guidance;
 - ii. Develop a corporate GHG Inventory Management Plan based on a detailed EPA checklist to institutionalize the inventory process; and
 - iii. Set an aggressive corporate-wide GHG emissions reduction goal to be achieved over 4 to 6 years.

5. How this is gaining the company strategic advantage over competitors? Molson Coors activities in sustainable procurement and the resulting partnerships with our suppliers are solidifying a strategic advantage for the Company in sourcing the best quality agricultural raw materials. It is also helping to build resilience to supply shocks and find efficiencies in the supply chain. We promote the use of sustainable agriculture practices, supporting our suppliers in the adoption of the six principles of our Agricultural Brewing Ingredients Policy

(http://www.molsoncoors.co.uk/en/Responsibility/~/_media/BEDF1687C47B4FD0B910BA4CCD777ECE.ashx):

- Comply with Molson Coors quality specifications,
- Adopt agricultural policies that strive to maintain soil fertility, water resources, air quality and biodiversity, and manage natural resources in an efficient manner,
- Recognise the importance of accreditation and adopt it in farm assurance programs where appropriate,
- Meet food safety guidelines and traceability specifications, and
- Understand and address any future guidelines, best practice and legislative change.

Large capital investments underway in Burton brewery, the largest in the UK, will also deliver important savings in energy, GHG emissions and water use through deployment of the latest technology in brewing, energy conversion and packaging. The technology will deliver efficiencies that will position the UK business in a competitive advantage related to production costs, including energy and GHG compliance costs.

6. What have been the most substantial business decisions made?

The most substantial business decision made in 2012 was the adoption of ambitious 2020 GHG, energy and water intensity targets. Molson Coors believes these targets will drive savings that will make the business more sustainable, competitive and less exposed to climate-related risks. Another important decision was the Canadian business unit ring-fencing over \$4 million in their capital budget to invest in reducing energy, GHG emissions and water. This is evidence of how long-term climate and sustainability objectives are driving tangible short-term behaviour.

2.2b

Please explain why not

2.3

Do you engage in activities that could either directly or indirectly influence policy on climate change through any of the following? (tick all that apply)

- Direct engagement
- Trade associations
- Other

2.3a

On what issues have you been engaging directly?

Focus of legislation	Corporate Position	Details of engagement	Proposed solution
Clean energy generation	Support with minor exceptions	Canada - MolsonCoors is engaged with a local authority where we operate to explore the opportunity for district heating using biomass from our operations.	We have provided technical expertise and input into the process but are unable to disclose details due to confidentiality constraints.
Adaptation resiliency	Support with minor exceptions	EU - Molson Coors has participated, and continues to do so, in the consultation process for the EU Water Framework Directive and its transposition to UK regulation. The Directive and corresponding national regulation relates to future water abstraction licensing in the	Molson Coors supports the Directive and its transposition into UK law, we believe that the UK needs to plan for Climate Change and changing demographics in securing water supplies for the future. Our position has been to

Focus of legislation	Corporate Position	Details of engagement	Proposed solution
		UK to adapt to climate change and changing demographics.	ensure that this process takes into account local watershed considerations and is inclusive of all stakeholders.
Energy efficiency	Support	US - Our Miller Coors JV supports the "Energy Savings and Industrial Competitiveness Act". This legislation will help identify federal and state policy barriers to increased industrial energy efficiency, demand response and greater use of combined heat and power. Miller Coors is engaged with a coalition of industrial energy companies to advance the legislation.	Miller Coors supports the intent of the legislation and is contributing towards a solution that works for industry.
Cap and trade	Support with major exceptions	US - American Clean Energy Act of 2009 - Current political climate in Congress would not favour consideration of a cap and trade bill. However, the Obama Administration is assessing the feasibility of administrative action. In 2009, the company worked with bill sponsors to amend the bill by: Allowing industrial manufacturers to aggregate their allowances to permit internal trading between plants; clarifying that short cycle CO2 emissions are not and should not be covered by the provisions of this legislation; and calculating only direct emissions to lower our cost of compliance.	Miller Coors' position was that the legislation picked winners and losers and that the purpose could be better accomplished through strong energy efficiency legislation.
Energy efficiency	Support	US - Truck Weights "Safe and Efficient Transportation Act" (SETA), HR 612. This policy change will enable Miller Coors and our family of beer distributors to move the same amount of freight more efficiently using fewer trucks, thereby reducing fuel consumption , (4.6M gallons) and CO2 (9,373 tons) emissions, Miller Coors has interfaced directly with Congress and the Obama Administration and is also working through the Coalition for Transportation productivity.	Miller Coors supports the Act.

2.3b

Are you on the Board of any trade associations or provide funding beyond membership?

No

2.3c

Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to influence the position?
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2.3d

Do you publically disclose a list of all the research organizations that you fund?

2.3e

Do you fund any research organizations to produce public work on climate change?

2.3f

Please describe the work and how it aligns with your own strategy on climate change

2.3g

Please provide details of the other engagement activities that you undertake

Our breweries engage with local authorities on a host of issues, including availability of water resources. This is the case in breweries such as Tadcaster where we have collaborated with authorities and many other stakeholders in protecting the watershed in the face of climate risks, amongst others.

We also engage on energy and GHG issues such as the UK Climate Change Agreements and GHG inventory reporting requirements through participation in sector associations. This is explained further in section 2.3h.

2.3h

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?

Molson Coors actively seeks to engage both local, national and international policy makers in an effort to encourage practical policies and legislation in the area of both mitigation and adaptation, as well as drive the establishment of voluntary schemes and community programs that function where legislation is missing or inappropriate. We take an open approach to engagement encouraging transparency and advocating collaborative work for mutual benefit, including sharing of best practice. Wherever possible, we champion pragmatic, clear and simple approaches (including legislation and voluntary schemes) and are advocates of taking concrete action no matter how small rather than prolonged deliberation.

In the UK, the Company is a member of the British Beer and Pub Association trade body and has participated in number of its committees and policy forming bodies including the Environmental Panel which advises on energy and carbon policy. As a trade body, the BBPA do meet with the policy makers to discuss future legislation and the potential impact of it on the brewing industry, including climate change legislation and emission trading schemes. The BBPA also responds to consultation documents on future legislation incorporating the views of all its members. Recent consultations to which Molson Coors have contributed include the response to the UK Government proposals for the next phase of the UK Climate Change Agreements and European Emission Trading Scheme.

At the national level in Canada, MCBC participates in the Beverage Industry Environmental Roundtable which has developed sector guidance on GHG accounting and reporting and engages policy makers on behalf of the industry. In the US, the company has been working with the EPA through voluntary programs such as the Climate Leaders' Voluntary Greenhouse Gas Reduction Program and EPA Smartways Program. These programs encourage adoption of fuel-saving equipment and practices in transportation. In addition, we are members of The Sustainability Consortium, a university based and led group of manufacturers, retailers, researchers, and suppliers who are developing a science-based sustainability measurement and reporting system to assist with identifying product "hot spots" and the associated best-practices to reduce product impacts. We also have a government affairs representative in Washington, DC who is monitoring developments and working with our food industry and manufacturing industry counterparts for comments to regulators on legislative activities and their potential impact on industry and climate.

In addition, as part of our adaptation strategy our local site management teams participate in roundtable discussions with local authorities to address issues such as watershed management and we have established the Molson Coors Growers group that allows us to influence farming practices. We are also a member of Linking Farming and Environment (LEAF) which advocate Integrated Farm Management to growers and Policy makers.

2.3i

Please explain why you do not engage with policy makers

Attachments

[https://www.cdproject.net/sites/2013/48/12348/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/2.Strategy/D5221-01-57 Project Flyer - Catchment Case Studies - Issue 2.pdf](https://www.cdproject.net/sites/2013/48/12348/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/2.Strategy/D5221-01-57%20Project%20Flyer%20-%20Catchment%20Case%20Studies%20-%20Issue%202.pdf)

Page: 3. Targets and Initiatives

3.1

Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?

Absolute and intensity targets

3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
MilC	Scope 1+2	100%	8%	2008	1803125	2015	This target applies to our US Joint Venture, Miller Coors which makes up around 73% of our scope 1 and 2 emissions

3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
MCBC	Scope 1+2	95.7%	7%	metric tonnes CO2e per unit of production	2008	21.4	2012	Molson Coors enterprise wide target including the 42% share of MillerCoors JV. Emissions from Maltings operations are excluded due to the unit of production being Tonnes of dry product as opposed to hl of beer production. The Maltings have yearly energy reduction targets.

3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
MCBC	Decrease	7	No change	0	Although no real change in Scope 3 emissions is anticipated, reported emissions in this category are forecast to increase as our emission inventory progressively covers more of the entire supply chain. We believe that our activities in sustainable procurement will have a positive impact on scope 3 emissions but our ability to quantify the percentage reduction of carbon emissions is limited at this time and remains outside of scope of target.

3.1d

Please provide details on your progress against this target made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
MiIC	57%	100%	In 2012, Miller Coors achieved a 24,800 tCO ₂ e reduction (-16%) in absolute Scope 1 and 2 emissions, contributing to performance that is far ahead of the 2015 target. Performance has been driven by energy reduction activities at the breweries and this continues to be a priority focus.
MCBC	100%	100%	We have surpassed our reduction target by a significant distance (24.2% reduction versus a 7% target). This has resulted in over 274,886 tCO ₂ e fewer emissions in 2012 with respect to 2008. In 2012, we took a hard look at the progress-to-date in reducing our carbon footprint and the continued savings that would be needed to adequately mitigate against climate risk and meet our Stakeholder's expectations on climate change mitigation and sustainability. As a result, we have publically committed to further reductions of our GHG intensity by 15% by 2020 from 2011 levels.

3.1e

Please explain (i) why not; and (ii) forecast how your emissions will change over the next five years

3.2

Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?

No

3.2a

Please provide details (see guidance)

3.3

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and implementation phases)

Yes

3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO₂e savings

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	53	1600
To be implemented*	15	150
Implementation commenced*	10	485
Implemented*	37	3900
Not to be implemented	4	100

3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in Q0.4)	Investment required (unit currency - as specified in Q0.4)	Payback period
Low carbon energy installation	Scope 1&2 (20 year lifetime) - Montreal 2nd phase HVAC Retrofit with high efficiency technology.	988	135000	1100000	4-10 years
Energy efficiency: Processes	Scope 1 (20 year lifetime) Montreal boiler stack heat recovery with the installation of a Condex	780	185000	1200000	4-10 years
Energy efficiency: Processes	Scope 2 (20 year lifetime) - Montreal - Installation of a variable drive on the ammonia compressor engine	490	140000	825000	4-10 years
Energy efficiency: Processes	Scope 1 (15 year lifetime) - Tadcaster - Optimization of condensate return vessels to recover more hot water to use as boiler make-up water, thereby reducing gas consumption to produce the same amount of heat.	410	80000	70000	<1 year
Energy efficiency: Processes	Scope 1 (unlimited lifetime) - Montreal - Optimization of boilers rinsing cycle time	108	16000	0	<1 year
Energy efficiency: Building services	Scope 2 (20 year lifetime) - Burton - Lighting retrofit (more efficient fixtures, dimming controls) in canning and process areas.	87	55000	80000	1-3 years

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in Q0.4)	Investment required (unit currency - as specified in Q0.4)	Payback period
Energy efficiency: Processes	Scope 2 (20 year lifetime) - Tadcaster - Installation of power optimization equipment which effectively optimizers the power voltage, resulting in quantifiable power savings.	77	15000	70000	4-10 years
Energy efficiency: Processes	Scope 1 (7 year lifetime) - Moncton - Applied Thermal Insulating Paint to the Bottle washer for better heat retention	68	17000	11000	<1 year
Energy efficiency: Processes	Scope 1 (unlimited lifetime) - Burton - Reduction in evaporation rates in the wort kettle as a result of process modification	59	19000	0	<1 year
Energy efficiency: Processes	Scope 2 (10 year lifetime) Montreal conveyor control with an automatic stop to reduce engine energy consumption and process steam required	47	6500	32000	4-10 years
Energy efficiency: Processes	Scope 1 (unlimited lifetime) - Burton - Modification of temperature set-points in keg washing to find a better balance between quality and energy use	28	9300	10000	1-3 years
Energy efficiency: Processes	Scope 1 (15 year lifetime) - Toronto - Boiler #3 Control Upgrade - Install high efficiency motor, VFD & burner management system	331	39000	160000	4-10 years
Energy efficiency: Building services	Scope 2 (20 year lifetime) - Moncton - Installed new LED wall pack outdoor lighting in place of metal halide.	11	1700	6000	4-10 years
Energy efficiency: Processes	Scope 2 (15 year lifetime) - Moncton- Installed control equipment to optimize sequencing of 2 60hp air compressors.	10	1800	8000	4-10 years
Energy efficiency: Processes	Scope 1 (5 year lifetime) -St. John's - Installation of carbon filter regeneration controls	9	17000	67000	4-10 years
Transportation: use	Scope 1 (unlimited lifetime) - NDC Warehouse in the UK - Optimize fork-lift use in the warehouse and save on fuel use.	5	8600	0	<1 year
Transportation: use	Scope 1 (unlimited lifetime) - MNM Warehouse - Reduce FLT travel around the Warehouse 2012	5	6000	0	<1 year
Energy efficiency: Building services	Scope 2 (20 year lifetime) - Vancouver - Undertook a lighting upgrade by replacing fixtures with induction lighting in an area within the brewery	5	10500	53000	4-10 years
Energy efficiency: Processes	Scope 2 (15 year lifetime) - Vancouver- Installed Variable Speed Drive to automate control of Boiler combustion air supply fan, thereby reducing energy consumption by not running it at a constant speed regardless of the load.	3	6250	46000	4-10 years

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in Q0.4)	Investment required (unit currency - as specified in Q0.4)	Payback period
Energy efficiency: Processes	Scope 2 (15 year lifetime) - St. John's - Automation of Compressed Air Isolation	3	11000	46000	4-10 years
Energy efficiency: Processes	Scope 1 (unlimited lifetime) - Tadcaster - Optimization of Cleaning-in-Place cycles to use less hot water.	2	2700	0	<1 year
Energy efficiency: Processes	Scope 1 (unlimited lifetime) - Tadcaster - Substitution of chemicals in process water filtering in order to reduce energy usage in the filtration process.	2	4500	0	<1 year
Energy efficiency: Processes	Scope 2 (unlimited lifetime) - Burton - Improvements in line shut-down procedures to reduce wasted electrical load	1.5	1400	2200	1-3 years
Energy efficiency: Processes	Scope 1 (20 year lifetime) -St. John's - Improve bottling line heating and ventilation controls	1	4000	20000	4-10 years
Energy efficiency: Building services	Scope 2 (15 year lifetime) - Toronto - Interior and Exterior Lighting Upgrade Project - To replace outdoor lighting with high efficiency lighting. In investigating stage.	76	70	330000	4-10 years
Low carbon energy installation	Scope 1 (25 year lifetime) - Patna, India - Rice husk biomass replacement of natural gas in boilers for steam generation. Being undertaken as a Clean Development Mechanism Project Activity	4500		550000	

3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	Our UK breweries are subject to IPPC permits, four UK sites are subject to the EU ETS and all of our UK sites are signatories to Climate Change Levy Agreements.
Dedicated budget for energy efficiency	Both the UK and Canadian business units have a dedicated central capital budget to undertake energy efficiency and GHG reduction projects, ensuring that savings plans are adequately resourced to meet targets. Individual breweries also have their own capital allocations and R&M budgets.

Method	Comment
Employee engagement	We actively engage employees in energy and carbon reduction initiatives and we successfully consolidated "Our Beerprint" as a way of engaging employees further in understanding their contribution to Molson Coors' environmental footprint (see video explanation of Our Beer Print: http://www.molsoncoors.com/en/Responsibility.aspx). There are regular communications discussing energy and carbon issues and reduction activities and employees are encouraged to suggest ways of improving.
Internal incentives/recognition programs	Annual bonus payments for all employees are linked to achievement of business goals, including our energy reduction target. Additional financial incentives for those with the greatest decision-making authority over energy consumption are included in the internal recognition program. During 2012, we worked on establishing brewery-level GHG intensity targets to incorporate in the KPI reporting process and complement the energy reduction target. As of January, 2013, these carbon targets are monitored and tracked at brewery, business unit and corporate level.
Other	Energy Managers and other relevant internal stakeholders share energy, water and GHG management best practices during bi-monthly meetings of the Global Utilities Council. This helps to disseminate best practice throughout the organization and leads to better adoption of low emitting technology or operational procedures.

3.3d

If you do not have any emissions reduction initiatives, please explain why not

Further Information

MCBC covers climate change in our mainstream financial reporting (Pg 16 of 10K report), identifying climate related risks to the business. We have reported this same information as part of its annual submission to the Dow Jones Sustainability Index. We also provide this information to our customers upon request and via our website.

Page: 4. Communication

4.1

Have you published information about your company'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	Page/Section reference	Attach the document
In voluntary communications (underway) – previous year attached	CR Report	https://www.cdproject.net/sites/2013/48/12348/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation1/2011 MC Responsibility Report.pdf
In mainstream financial reports (complete)	10k filing. Pg 16	https://www.cdproject.net/sites/2013/48/12348/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation2/MCBC 10K Report.pdf
In voluntary communications (complete)	DJSI	https://www.cdproject.net/sites/2013/48/12348/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation3/Sustainability Assessment - DJSI Sustainability Assessment 2013 - MOLSON COORS BREWING CO.pdf

Further Information

MCBC covers climate change in our mainstream financial reporting (Pg 16 of 10K report), identifying climate related risks to the business. MCBC has reported this same information as part of its annual submission to the Dow Jones Sustainability Index. We also provide this information to our customers upon request and via our website.

Module: Risks and Opportunities [Investor]

Page: 5. Climate Change Risks

5.1

Have you identified any climate change risks (current or future) that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Risks driven by changes in regulation
- Risks driven by changes in physical climate parameters
- Risks driven by changes in other climate-related developments

5.1a

Please describe your risks driven by changes in regulation

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
1A	Cap and trade schemes	<p>Risk related to Cap and Trade legislation is substantive to the business in so far as it materializes for several jurisdictions; UK, Hungary, Romania, US, Quebec, British Columbia, Croatia, Montenegro. The analysis of impact is done individually for jurisdictions where new or changes to existing emissions trading schemes are being considered. However, the sum of the risk is greater than the individual risks due to the greater likelihood of a local/regional risk materializing as a result of continental or international cooperation on climate change mitigation.</p> <p>EU ETS– the impact of the 3rd phase of the EU ETS in so far as it applies to 3 breweries (Burton UK, Ploiesti Romania, Bocs Hungary) is highly uncertain. The 3rd phase, as is, does not represent a material risk. However, the continuity of the EU ETS is in doubt if current conditions persist, and the alternative (carbon taxes, performance standards) represents a risk of higher energy costs. In all cases, the potential impact is one of higher energy costs. Our Tadcaster and Alton breweries are exempt from the EU ETS per se but are subject to equivalent limitations on fuel-related CO2 emissions.</p>	Increased operational cost	1-5 years	Direct	About as likely as not	High
1B	Cap and trade schemes	<p>US – California has implemented a Cap and trade program as a result of AB32 and that impacts the Miller Coors Irwingdale brewery. If greenhouse gas reductions are not made at the brewery, carbon credits may need to be procured in 2017.</p>	Increased operational cost	1-5 years	Direct	Likely	Medium-high
1C	Cap and trade schemes	<p>Croatia and Montenegro – Both countries are candidates to accede to the EU. New regulation of CO2 emissions as a result of policy/standards alignment in the campaign to accede and certainly upon successful succession represents a risk of higher operational spend on energy. To the extent that the EU ETS continues to be in vigour and allowance prices recover from historic lows, accession could mean that our either breweries in</p>	Increased operational cost	1-5 years	Direct	Unlikely	Medium

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		these countries are covered under the trading scheme as new entrants in the later stages of Phase III or they are exposed to higher energy prices as EU ETS compliance costs are passed through.					
1D	Cap and trade schemes	Canada – Recently approved cap and trade legislation in Quebec that covers the energy sector initially represents a likely indirect risk of higher energy costs as power producers pass on compliance costs in electricity tariffs. More importantly, it is a risk of direct impact in so far as the scheme amplifies its coverage in the future to include the Montreal brewery. This represents a risk of compliance costs related to the combustion of natural gas, which represents a larger proportion of the brewery's energy spend than electricity. In relation to our Vancouver brewery, the Province is discussing a potential revision of the climate policy which could either change the current carbon taxation levels (30\$/tCO2) or substitute it with a cap and trade system.	Increased operational cost	Current	Direct	Likely	Medium
1E	Carbon taxes	All 4 UK-based breweries are subject to the Climate Change Levy (CCL) applied to their electricity consumption. The Levy increased 2.9% in 2013 from the previous year. In the case of Sharps, the Levy is applied to fuel-related emissions as well in light of not being covered by an alternative scheme such as the EU ETS. The risk related to the CCL is twofold: 1) Increasing tax rates in the future; and 2) Penalties and/or lost discounts on the CCL due to not meeting the energy efficiency targets imposed by the recently revised Climate Change Agreement. Molson Coors UK signed a new Climate Change Agreement covering the period 2013 to 2020 in which it commits to a collective (across the 4 UK Breweries) 9.8% reduction in specific electricity consumption (fuel and electricity in the case of Sharps) over the 8 years. Falling short of this target requires a payment of £12 per tonne of CO2e that exceeds the target.	Increased operational cost	Current	Direct	Virtually certain	Medium
1F	Carbon taxes	Our Vancouver Brewery is subject to the British Columbia Carbon Tax of \$30/tCO2e in relation to its fuel consumption for	Increased operational cost	1-5 years	Direct	About as likely as not	Low-medium

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		heat generation and transportation. The tax is applied on a per gigajoule of gas consumption basis, resulting in 1.4898\$/GJ. The tax suffered a scheduled increase in July 2012 of \$5/tCO2e and there are currently no further scheduled increases. However, the BC Government has started a comprehensive review of the Carbon Tax and it is unclear what the results will be. BC is currently aligned with its target to reduce GHG emissions by 33% by 2020, which would at least indicate that the current price signal provided by the carbon tax is adequate.					
1G	Fuel/energy taxes and regulations	Several governments have set legally binding GHG reduction targets (UK - 80% of 1990 levels by 2050; British Columbia 'Bill 44-2007' targets – 80% by 2050 from 2007 levels). These targets will filter through into new legislation in the future to ensure that the target is met. This could take the form of higher transport fuel taxes or electricity charges related to de-commissioning fossil-fuel based plants or financing alternative energy sources.	Increased operational cost	6-10 years	Direct	Likely	High
1H	Emission reporting obligations	Molson Coors monitors Scope 1 and 2 GHG emissions from all material sources and, in most cases, is subject to reporting requirements (NPRI in Canada, EU ETS or CCA in the UK, US EPA). To the extent that new emissions trading schemes or carbon taxes require very stringent monitoring requirements of process emissions in terms of allowed uncertainty, our breweries would have to invest significantly in metering of CO2 generation and recovery. Mandatory reporting of life-cycle emissions for a broad set of products is being discussed by the European Community and the UK and would also represent a material reporting burden.	Increased operational cost		Direct	Unlikely	Medium
1I	Emission reporting obligations	Affecting the Miller Coors operations in the US are emission reporting requirements to US EPA and individual States. Biogenic-based (such as CO2 generated from fermentation, waste treatment, etc.) emissions are exempt from reporting at this time. The EPA is currently re-evaluating this exemption. Regulation of biogenic CO2 would likely lead to increased operational costs related to new metering infrastructure and monitoring burden.	Increased operational cost	1-5 years	Direct	Unknown	Medium

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
1J	Voluntary agreements	There is a growing number of programmes being led by large multi-nationals to which Molson Coors are suppliers (i.e. Tesco and Wal*Mart's Sustainability Consortium) which are actively targeting CO2 emission reductions across their supply chains. The failure to actively participate in the voluntary schemes could lead to increased pressure from the customers participating or even delisting of the company's products.	Reduced demand for goods/services	1-5 years	Direct	Unlikely	High
1K	Product labeling regulations and standards	In the UK, the EU is evaluating product labeling regulations and standards and product labelling is being actively promoted in France which could influence the outcome of any EU wide decision	Reduced demand for goods/services	1-5 years	Direct	About as likely as not	Low

5.1b

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk and (iii) the costs associated with these actions

1A Cap and trade schemes – EU ETS

1. Potential financial exposure of 0.7 M to 3.3 M\$ over the 8 years to 2020. The total exposure depends on the price of allowances which is depressed at this point in time and has few prospects of returning to the 20 to 30 euro pre-crisis levels. The estimated range of financial implications are based on price scenarios of 3.77 €/t (actual) and 20€/t applied to estimated shortfalls in allowances.
2. The 3 breweries manage the risk of higher compliance and energy price costs by undertaking all cost-effective GHG reduction opportunities. We ensure this by monitoring and tracking performance against annual and 2020 targets for energy reduction and GHG savings for the breweries and supporting this with energy and GHG savings planning which feed the capital allocation process. More concretely, Burton (brewery with the greatest exposure) is engaged in a major investment over the following 3-5 years which will result in considerable GHG savings and lower risk.
3. Circa \$40k as a value of internal resource is devoted to trading and compliance.

1B Cap and trade schemes –U.S – Miller Coors JV

1. Potential financial exposure of \$2,5 Million between 2017 and 2020 in relation to the Irwingdale brewery and AB32. This cost could result if insufficient direct GHG reductions are made over the next 8 years.

2. Miller Coors manages this risk primarily by monitoring and tracking performance against annual and long-range targets for energy reduction and GHG savings for the Brewery and supporting this with energy and GHG savings planning which feed the capital allocation process. More specifically, the brewery has engaged in a concerted effort to employ short-interval-control to identify opportunities for operational efficiencies that achieve energy/GHG and water savings.
3. Costs related to internal resourcing of energy and GHG management are not estimated.

1C Cap and trade schemes –Croatia and Montenegro

1. Potential financial impacts in the range of 0.05 M\$ to 0.25 M\$ over the 8 years to 2020. This assumes price scenarios of 3.77 to 20 €/t applied to estimated shortfalls of 25% of emissions.
2. The methods used to manage this risk are the same as in the EU ETS breweries as they are subject to the same energy and GHG Key Performance Indicators and long-range targets, as well as energy and GHG savings planning. More specifically, the Zagreb brewery has reduced its energy consumption and GHG emissions over the last years to the point that they are within the top 10% in energy intensity worldwide according to the KWA world benchmark for brewing. This mitigates the impact of the EU ETS considerably given the use of benchmarking to allocate allowances.
3. No costs related to compliance as of yet.

1D Cap and trade schemes – Canada

1. Potential financial implications in the range of 0,1 M\$ to 0.2 M\$/yr associated with a direct obligations of the Montreal brewery under the Quebec emissions trading scheme legislation. The estimate assumes a \$20 allowance cost applied to 15 and 30% of Montreal brewery's direct CO2 emissions from fuel combustion.
2. Montreal manages this risk in 2 principle ways; a) by demonstrating to public authorities and public utilities their commitment to energy savings and GHG mitigation, for which they have been recognized with several awards; and b) by monitoring, targeting and planning for energy and GHG savings on an annual basis and for 2020. These actions reduce the probability of the brewery being directly subject to the cap-and-trade scheme.
3. Costs associated with these actions are related to internal resources and are not estimated.

1E Carbon taxes - UK

1. Potential financial implications related to the failure to achieve carbon reduction targets associated with the CCA levy in the UK would result in loss of discount with a value of around 0.39 M\$/yr.
2. All of our sites have a target to reduce energy use and have teams in place driving activity to reduce energy consumption which in turn reduces exposure to energy taxes. We are also actively exploring use of energy sources that might be exempt from any such tax, such as biogas recovery from anaerobic digestion of effluent. We already employ this technology in the Tadcaster brewery.
3. Circa £5k per annum of resource allocation for administration and reporting. Costs of specific actions such as biogas recovery in additional breweries such as Burton are over 1.5 M\$.

1F Carbon taxes - Canada

1. Potential financial implications related to revision of the B.C Carbon tax is in the order of 0.25 \$M per annum of additional energy cost, assuming a future tax increase to \$60/tCO2e.
2. The Vancouver brewery, in addition to working to meet an energy and GHG KPI and 2020 target, is taking specific measures to reduce gas consumption and the carbon tax. The Brewery has operated an Energy Management Team that brings together key people from all relevant areas and identifies, plans and follows-up on energy and GHG savings projects.
3. The cost of internal resources at the brewery that are dedicated to an energy management and GHG reduction has not been estimated.

1G Fuel/energy taxes and regulations

1. Energy prices have risen significantly in recent years and so an increase in cost to the business of between 1 and 7 M\$ per annum is not unlikely over the next 8 to 10 years. This assumes price increases of 10 to 35%.
2. All of our sites have a target to reduce energy use and have teams in place driving activity to reduce energy consumption which in turn reduces exposure to energy taxes.
3. 50 k\$ of procurement team resource is attributable to managing energy costs in Canada and the UK.

1H Emission Reporting Obligations

1. Potential financial implications of new reporting requirements related to process or life-cycle emissions of our products are difficult to estimate but are likely less than 0.25 M\$ in new metering and data collection resources.
2. Molson Coors has decided to pilot an Energy Management Information System (EMIS) in two of its breweries with plans to roll-out to the entire network of sites should they prove successful. The EMIS will not only provide enhanced monitoring and targeting capability for energy and GHGs but it will reduce the reporting burden of future requirements.
3. The cost associated with piloting the EMIS system in 2 breweries is circa 0.2 M\$

1I Emission reporting obligations – Miller Coors JV

1. Potential financial implications associated with increase reporting costs of biogenic sources have not been estimated due to the difficulty in comparing the gaps in metering infrastructure with an unknown monitoring requirement.
2. Miller Coors piloted an EMIS system in their Irwingdale brewery, something which would render future reporting requirements less onerous.
3. The cost of the EMIS pilot was not material and internal resource costs have not been estimated.

1J Voluntary agreements

1. Potential financial implications relate to de-listing of products, or de-prioritisation with regard to shelf space and aisle position and could amount to considerable lost revenue, although it is difficult to quantify.
2. We manage this risk by meeting our customer's expectations on transparency and responding to the CDP Supply Chain. We also participate in other customer schemes and communication of carbon reduction activity to customers.
3. Minimal cost due to resource allocation for reporting and administration.

1K Product labeling regulations

1. We estimate that to produce footprints for UK product lines would require at least one FTE and initial costs between 0.5 M\$ -1 M\$. The risk is managed through active membership of trade associations and industry groups that advocate our position to government on behalf of the industry, whilst compiling LCA product data to lower cost implementation in the event of legislation. Costs are estimated at around 50 k\$/yr, comprising of software licences and fees.

5.1c

Please describe your risks that are driven by change in physical climate parameters

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
2A	Change in mean (average) precipitation	Rainfall is increasingly becoming less frequent in some parts of the UK, particularly the East and South East of England which is a barley growing area. A drought in the spring of 2012 was evidence of this risk. Lower rainfall levels could affect the crop growing seasons affecting barley availability.	Reduction/disruption in production capacity	>10 years	Indirect (Supply chain)	More likely than not	Medium-high
2B	Change in precipitation pattern	Changing rainfall patterns may affect aquifer winter recharge rates which are the main source of water supply for the UK breweries. Lower aquifer levels could lead to reduced ground water availability leading to increased costs for alternatives	Increased operational cost	1-5 years	Direct	More likely than not	Medium-high
2C	Change in precipitation extremes and droughts	Flooding of the River Trent has been identified as a threat to the Burton Brewery which lies in the lowest part of the town. Any increases in the flooding patterns along the River Trent could result in the brewery being affected by flood waters which would result in production outages and major impacts on the supply chain. In Canada, droughts could cause a risk to over taxing local water infrastructure which could lead to increase cost or water restriction for both brewing and agricultural use in our supply chain. We have undertaken watershed risk assessments for all of our Canadian breweries and determined that none are in water-stressed areas. Nevertheless, climate change could change water availability in the long run.	Reduction/disruption in production capacity	>10 years	Direct	About as likely as not	Medium-high
2D	Change in mean (average) temperature	UK, Canada, US, Central Europe - Increased temperatures could increase agricultural use of water which could further reduce availability for manufacturing sectors and increase costs.	Increased operational cost	6-10 years	Indirect (Supply chain)	About as likely as not	Medium
2E	Change in precipitation pattern	In areas of the US, an increase in the duration and frequency of droughts has recently caused reservoir water levels to decrease. Storm intensity has also increased causing a higher risk of flooding and other disruptions.	Increased operational cost	1-5 years	Direct	More likely than not	Medium

5.1d

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; and (iii) the costs associated with these actions

Our Enterprise Risk Management team and those responsible for procurement, operations, distribution, and sales all assess and seek to manage the risks resulting from variability in weather and adverse events. The risks in table 5.1e are presented below:

2A Change in mean (average) precipitation

1. Financial implications include an increase in the price paid for barley. Small changes in the barley harvest could easily result in increased costs of over 1 \$M in any particular year. Although unlikely, more severe impacts that simultaneously affect barley production in Europe, the UK and Canada could have a financial impact in the \$10 M\$ range. The estimations are based on a experiencing reasonable price increases in a particular region, in the first case, and in all regions in which we operate in the second case.
2. We have established the Molson Coors Growers group to make communication of issues such as water conservation easier and to allow for sharing of good practice. Additionally, we have an experienced procurement team that is focused on buying barley at the best price and have recently developed our sustainable procurement platform that will raise awareness of climate change adaptation issues amongst procurement colleagues and suppliers.
3. The cost of developing the sustainable procurement program was approximately \$100k.

2B Change in precipitation pattern -

1. Financial implications initially are increased water charges which could be in the region of 1.5 \$M (if 50% of abstracted water were replaced) however extreme cases could also lead to production disruption and activation of business continuity plans.
2. All UK breweries maintain a secondary supply of municipal water. In addition each brewery has a business continuity plan that could see production moved to other sites in the event of extreme water shortage. In order to minimise exposure to water risks all breweries have water reduction targets and teams in place focused on reducing water consumption and increasing recycling of water whilst many breweries have also conducted watershed assessments.
3. Capital expenditure and resources are attributed to attainment of corporate water reduction goals and improved process efficiency. Costs of watershed studies were of the region of \$130k for Canada and the US.

2C Change in precipitation extremes and droughts -

1. Flooding of the Burton brewery would have important financial implications in terms of lost production, equipment damage and clean-up operations which could easily amount to in excess of \$1M. Decreased availability of water to breweries in Canada due to drought conditions could result in lost production and activation of business continuity plans that could have significant costs running to in excess of \$100k. An increase in raw material prices paid for commodities such as barley, wheat and hops could result from precipitation extremes. Operating cost increases could be in the range of \$50k to \$150k dependent upon the scale of shortage and price response.
2. Burton local authorities have upgraded the town flood defence system (spending 55 k\$ to move a 1 in 100 year flood risk to a 1 in 200 year risk) and the brewery has a flood response plan in place aimed at minimising disruption and damage in the event of a flood event. The UK IT centre was also relocated from Burton to Leeds to avoid any residual risk of flooding. Each site in Canada has a water reduction program and is actively looking for ways to reuse and recycle water to minimise demand and reduce exposure to water shortages. In relation to the risk of higher barley prices, we have established the Molson Coors Growers group to make communication of issues such as water conservation easier and to allow for sharing of good practice. Additionally we also have an

experienced procurement team that is focused on buying barley at the best price and have recently developed our sustainable procurement platform that will raise awareness of climate change adaptation issues amongst procurement colleagues and suppliers.

3. The cost of developing the sustainable procurement program was approximately \$100k. Flood response planning has required minimal expenditure whilst water minimisation activities utilise resources attributable to our corporate water reduction goals.

2D Change in mean (average) temperature -

1. Financial implications include an increase in the price paid for agricultural raw materials which could readily amount to on costs of over \$1M.
2. We have established the Molson Coors Growers group to make communication of issues such as water conservation easier and to allow for sharing of good practice. Additionally we also have an experienced procurement team that is focused on buying barley at the best price and have recently developed our sustainable procurement platform that will raise awareness of climate change adaptation issues amongst procurement colleagues and suppliers.
3. The cost of developing the sustainable procurement program was approximately \$100k.

2E Change in precipitation pattern -

1. Reduced reservoir levels range from increases in water charges to business disruption due to lack of available water to make product. Flooding events can also range from minor repairs to result in brewery closure, logistics interruption and power outages. The range of financial impact is very wide and estimated to be from 0.1 M\$ to several million dollars a year.
2. We have solid Disaster Recovery Plans in place in each brewery for weather related incidents. Each brewery also has a business continuity plan that could see production moved to other sites in the event of extreme water shortage. In order to minimise exposure to water risks all breweries have water reduction targets and teams in place focused on reducing water consumption and increasing recycling of water whilst many breweries have also conducted watershed assessments.
3. Capital expenditure and resources are attributed to attainment of corporate water reduction goals and improved process efficiency. However, during 2012 we spent over 0.7 M\$ on dedicated water reduction projects. Development of plans for flood management has zero cost.

5.1e

Please describe your risks that are driven by changes in other climate-related developments

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
3A	Reputation	In all business units, Molson Coors is a high profile company and a large user of water and energy, so it is extremely important that we maintain our reputation by ensuring that we are doing our part to be proper stewards of the resources we use by reducing our environmental foot print. Otherwise, trading relationships with customers and consumers could be harmed.	Wider social disadvantages	Current	Direct	More likely than not	High

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
3B	Changing consumer behaviour	In all business units, Molson Coors is highly susceptible to changing consumer behaviour. Climate changes can impact consumer behaviour by reducing or increasing consumer demand for our product. Warmer weather may increase demand, while storms could significantly reduce demand. Changes in consumer buying patterns arising from labelling and communications is also an area that MCBC is watching closely.	Reduced demand for goods/services	Current	Direct	Very likely	Medium
3C	Fluctuating socio-economic conditions	In all business units, Molson Coors is highly susceptible to fluctuations in the price of agricultural and energy commodities. (i.e. electricity, natural gas, transportation fuels, barley, hops, water). Climate Change is expected to add to price volatility of both agricultural and energy commodities.	Increased operational cost	Current	Direct	Virtually certain	Medium-high

5.1f

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; (iii) the costs associated with these actions

3A Reputation

1. Molson Coors is a high profile company and a large user of water and energy which poses a reputation risk in certain markets. Within the UK market where there is highest customer and consumer focus on environmental issues this risk is highest. A negative brand story could impact sales through reduced consumer demand or detrimental shelf space allocation in retailers. A 1% drop in UK sales would equate to 13 M\$ in lost revenue. Globally, a 1% drop in net sales would result in 39 M\$ in lost revenue.
2. Molson Coors mitigates this risk in several ways: a) by continuously reducing our environmental footprint; b) by engaging with our stakeholders to understand their expectations; and c) by being transparent about our activity and its impact on the environment. We have teams of expert resources dedicated to all three of these areas, effectively reducing the likelihood and magnitude of the reputational risk.
3. In 2012 our directly attributable resource costs were of the order of 0.3 M\$ and we spent over 4.5 M\$ on project activities to reduce our energy and water consumption.

3B Changing consumer behaviour

1. MolsonCoors distributes a wide range of products for both on-trade (commercial) and off-trade (individual consumer) use. Financial impacts due to change in consumer behaviour are difficult to quantify as they would be reflected in sales volumes. However, in the UK where carbon labelling is most advanced, a 1% drop in sales would equate to \$13 million in lost revenue.
2. We monitor consumer trends continuously and develop new and innovative products to keep pace with consumer expectations. During the last 2 years we have developed and refined lifecycle assessments for some of our key UK and Canadian brands as a proactive measure that will allow communication of carbon data should consumer trends require it. Molson Coors has also reduced the likelihood and magnitude of an impact of storms and colder weather by diversifying its global presence with the acquisition of 9 new breweries in central and eastern Europe.
3. The purchase of Quantis LCA software and internal resource focused on LCA amounts to less than 0.1 M\$ whilst monitoring of consumer trends for climate related issues costs zero as this is already funded for marketing purposes.

3C fluctuating socio economic conditions

1. The potential impact of agricultural and energy price changes on our business results is significant since together they represent an important component of our COGS. When considering that energy costs are reflected in the price of most of our suppliers (distribution, capital equipment, travel), the potential impact is magnified. Energy price rises in the next five to ten years could equate to an additional cost exposure of 3.5 – 14 M\$ per annum. This would likely be common across the industry and should not lead to a loss in competitive advantage. Agricultural commodity price rises driven by adverse changes in climate could lead to cost increases in the order of over 1 \$M over the next five to ten years.
2. We have established the Molson Coors Growers group to make communication of issues such as water conservation easier and to allow for sharing of good practice. Additionally we also have an experienced procurement team that is focused on buying agricultural commodities at the best price and have recently developed our sustainable procurement platform that will raise awareness of climate change adaptation issues amongst procurement colleagues and suppliers. In MillerCoors the barley supply chain has been mapped against water stressed areas to identify at-risk suppliers. In addition, MillerCoors has developed a drought-resistant strain of barley, to ensure future demand can be met. MillerCoors will continue to be proactive with investment to ensure a robust supply of raw materials. We have teams of expert resources dedicated to reducing energy and water consumption in our business operations. We have resources within each brewery, at business unit level and within the corporate organisation, and every brewery has an energy and water reduction plan.
3. In 2012 our directly attributable resource costs were of the order of 0.3 M\$ and we spent over 4.5 M\$ on project activities to reduce our energy and water consumption. The sustainable procurement program has cost around 0.1 M\$ to develop.

5.1g

Please explain why you do not consider your company to be exposed to risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

5.1h

Please explain why you do not consider your company to be exposed to risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

5.1i

Please explain why you do not consider your company to be exposed to risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Page: 6. Climate Change Opportunities

6.1

Have you identified any climate change opportunities (current or future) that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation
Opportunities driven by changes in physical climate parameters
Opportunities driven by changes in other climate-related developments

6.1a

Please describe your opportunities that are driven by changes in regulation

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
4A	Cap and trade schemes	Phase III of the EU ETS has used a benchmark for the purpose of determining allocation, thereby bestowing a	Reduced operational	1-5 years	Direct	Likely	Medium

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
		competitive advantage on those facilities within a sector that are most efficient. Recent global benchmarking studies suggest that our UK breweries are more efficient than average and both Alton and Tadcaster are in the top 10% in efficiency. All else being equal, this should decrease our cost structure relative to competitors in the UK market.	costs				
4B	Cap and trade schemes	Phase III of the EU ETS represents an opportunity for Burton Brewery in so far as major planned investments that will impact plant efficiency could potentially result in a surplus of allowances that can be sold on the market. Regardless of whether a surplus is generated, the opportunity cost of allowances renders the investment more profitable and places the brewery in a more competitive position with respect to competitor's breweries.	Reduced operational costs	Current	Direct	Very likely	Medium
4C	Voluntary agreements	Opportunities to provide greater value added to our customers through GHG reporting and cooperation on mitigation could lead to stronger relationships with our key customers, possibly resulting in preferred supplier status. Best practice sharing with both suppliers and key customers offers opportunities to streamline efficiencies and reduce supply chain costs.	Reduced operational costs	1-5 years	Direct	About as likely as not	Medium
4D	Voluntary agreements	UK Climate change levy agreements deliver a reduction in energy bills through a rebate of the Climate Change Levy.	Reduced operational costs	Current	Direct	Very likely	Medium
4E	Fuel/energy taxes and regulations	In many jurisdictions (British Columbia, U.S, Ontario, UK), national climate change mitigation efforts are leading to sustained and increased public resources available for incentivizing energy efficiency and GHG abatement projects. In 2012, Molson Coors benefited from over 0.5 M\$ in financial incentives in the Vancouver, Montreal, Toronto, and Moncton breweries to render investment in our own energy efficiency more profitable	Reduced capital costs	Current	Direct	Very likely	Medium

6.1b

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity and (iii) the costs associated with these actions

4A Cap & Trade

1. Potential financial rewards are estimated to be in the range of 0.02 \$M to 0.15 \$M of additional cost borne by competitors and not by Alton and Tadcaster breweries. This estimation assumes a 3.7 €/EUA price on the lower end and a 20 €/EUA on the upper end, applied to 25% of the brewery's emissions.
2. This opportunity arises as a result of the continued investment and focus on energy efficiency and GHG abatement in our breweries. This historical efficiency bestows a benefit in the form of an allocation of allowances over the 2013-2020 period that is higher than would otherwise be. Continued abatement is needed to ensure we maximize this opportunity and this will be ensured through monitoring, reporting of our GHG intensity performance against our 2020 targets and GHG/energy savings planning that delivers results.
3. No additional cost is associated with this opportunity as the allocation of allowances was based on historical performance.

4B Cap & Trade Burton Brewery

1. The potential financial value of expected savings in GHG emissions from the planned investments in Burton Brewery is in the range of 20 to 110 k\$, based on assumption of EUA prices of 3.7 and 20 €/EUA respectively. This represents at least a foregone cost and potentially a direct benefit if it results in an allowance surplus.
2. The Burton MasterPlan investments are underway and our Engineering and Sustainability teams have at all times in the planning process ensured that the new technology offers the greatest possible energy and GHG efficiencies.
3. There are additional costs that have been incurred in the feasibility and basic engineering processes to consider the energy and GHG intensity of different technology choices but this has not been separate from the general engineering process and is therefore not estimated.

4C Voluntary Agreements with Customers

1. We are unable to accurately quantify the financial rewards associated with stronger partnerships with key customers and preferred supplier status as they are reflected ultimately through sales (impact of shelf space etc) and commercial contracts. Similarly efficiencies in the supply chain are hard to quantify as they are reflected through reduced procurement charges. In addition, both improved customer and supplier relationships provide intangible benefits in day to day business including greater security of supply, insulation from price increases and avoidance of financial penalties.
2. We actively engage with our largest customers around sustainability and have introduced our growers group and sustainable procurement program in addition to regular customer and supplier contact. We also respond to the CDP Supply Chain requests from several suppliers and are open to exploring joint opportunities for GHG mitigation.
3. The sustainable procurement program cost around 0.1 M\$ to develop but other activity such as customer engagement meetings have zero associated cost.

4D Voluntary Agreements - CCA

1. Continued receipt of levy rebate is worth in the region of 1.5 M\$ of avoided costs based on current energy use levels and levy charges.
2. We have energy reduction programs in each UK brewery aimed at reducing our energy use in line with corporate targets which will in turn deliver a reduction in carbon emissions.
3. There is a small administration fee of below £10k to cover participation in the climate change agreement administered by the trade association. Costs of energy reduction teams and their activities are not directly attributable to securing levy rebate as they are in place to deliver corporate goals and reduce energy spend.

4E Fuel/Energy taxes and regulations

1. The financial reward related to government or public utility incentives for GHG abatement or energy efficiency was in excess of 0.5 M\$. We expect these incentive programs to continue and grow further in the future.
2. We manage this opportunity by ensuring that personnel at each brewery maintain close contact with relevant public institutions in order to be aware of and capitalize on opportunities for financial incentives.
3. There is no material cost to managing this opportunity.

6.1c

Please describe the opportunities that are driven by changes in physical climate parameters

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
5A	Change in mean (average) temperature	Warmer weather could lead to an increase in demand but this could be tempered by the adverse impact increased temperatures could have on raw material supply.	Increased demand for existing products/services	1-5 years	Direct	More likely than not	Medium-high
5B	Change in precipitation pattern	Changes in precipitation patterns may make new areas suitable for growing barley and hops and early realization of the new areas could enable the company to gain favourable rates against supplies from traditional areas	Reduced operational costs	6-10 years	Indirect (Supply chain)	About as likely as not	Low

6.1d

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity and (iii) the costs associated with these actions

5A Change in mean temperature

1. In climates such as the UK, Canada and the US, warmer summer temperatures and longer, dryer summers could increase sales. In a typical year sales rise in summer months and if this were to be extended by a couple of months it would be worth in excess of 39 M\$ on an annual basis. This estimation is based on a

1% increase in global net sales revenue. The opportunity is likely not continuous and incremental as it is more likely to arise in a given year and, in the balance of time, occur more often than not.

2. MolsonCoors manages this opportunity by distributing a wide range of products for both on-trade (commercial) and off-trade (individual consumer) use. We also monitor customer orders and forecast demand to ensure that brewery sites have sufficient capacity to supply.
3. There is zero additional cost over business-as-usual required to exploit this opportunity.

5B Changes in precipitation patterns

1. Increased growing seasons, additional capacity and increased productivity could all lead to increased availability and therefore lower costs of agricultural commodities such as barley. A very small reduction in commodity price could easily result in a value to business in excess of 1 M\$.
2. Our procurement teams monitor commodity prices to ensure that we take advantage of any beneficial price movements and watch for changes in supply such as new supply areas that could lead to advantageous purchasing arrangements. In the US we have developed drought resistant strains of barley that might also extend growing capacity or increase harvests and hence impact prices.
3. There is zero additional cost associated with this opportunity over and above business as usual

6.1e

Please describe the opportunities that are driven by changes in other climate-related developments

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
6A	Changing consumer behaviour	Education related to the general sustainability or even the specific carbon footprint of brands could act as a market differentiator as consumers are more aware of climate change related impacts and are influenced by this in their choice of products.	Increased demand for existing products/services	6-10 years	Direct	Unlikely	Low
6B	Reputation	Engagement and retention of our employees and consumers. Molson Coors is rated as a top employer in most of the jurisdictions in which it operates, partly due to its strong reputation in Corporate Responsibility. Continued performance in sustainability strengthens this reputation and enhances our ability to attract and retain the best talent.	Wider social benefits	1-5 years	Direct	Very likely	Medium

6.1f

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

6A Changing Consumer Behaviour

1. The financial value of this opportunity is not estimated due to the very intangible nature of the opportunity
2. The opportunity is managed by systematically performing market research on consumer behaviour, by improving our life-cycle carbon inventory and through a continued strategic focus on being recognized as leaders in Corporate Responsibility.
3. There is no additional cost associated with these actions.

6B Reputation

1. The financial value of this opportunity is not estimated due to the very intangible nature of the opportunity
2. The opportunity is managed by systematically through a continued strategic focus on being recognized as leaders in Corporate Responsibility.
3. There is no additional cost associated with these actions.

6.1g

Please explain why you do not consider your company to be exposed to opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

6.1h

Please explain why you do not consider your company to be exposed to opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

6.1i

Please explain why you do not consider your company to be exposed to opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Further Information

Opportunities related to product differentiation from having a strong sustainability reputation or by providing a low carbon footprint choice are intangible but real at the same time. Molson Coors performs market research on consumer behaviour, and this research illustrates that consumers want to buy from a company who is demonstrating and committed to Corporate Responsibility

In relation to engagement and retention of our employees and consumers, Molson Coors see an important opportunity in demonstrating commitment and leadership in climate change mitigation. We benefit from the skills and capabilities of our employees, and we value both our workforce and our consumers. Molson Coors employees identify with and support the company's Corporate Responsibility platform; this is verified through annual Employee Engagement surveys. An engaged workforce with improved retention rates will have a positive impact on the company financially. Our customers also value our excellent performance in Corporate Responsibility and increasingly in contributing to lowering their own GHG footprint.

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading [Investor]**Page: 7. Emissions Methodology**

7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Base year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
Tue 01 Jan 2008 - Wed 31 Dec 2008	681748	439854

7.2

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
US EPA Climate Leaders: Indirect Emissions from Purchases/Sales of Electricity and Steam
US EPA Climate Leaders: Direct Emissions from Stationary Combustion
Defra Voluntary Reporting Guidelines

7.2a

If you have selected "Other", please provide details below

7.3

Please give the source for the global warming potentials you have used

Gas	Reference
Other: CO2e	Other: DEFRA Reporting Guidance v1.2 2011
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	IPCC Fourth Assessment Report (AR4 - 100 year)

7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data

Fuel/Material/Energy	Emission Factor	Unit	Reference
Diesel/Gas oil	2.5835	kg CO2e per litre	2012 Guidelines to DEFRA/DECC's Conversion Factors for Company Reporting, Table 1b
Diesel/Gas oil	259.1	kg CO2e per MWh	2012 Guidelines to DEFRA/DECC's Conversion Factors for Company Reporting, Table 1b
Diesel/Gas oil	100	Other: gCH4 per MWh	2012 Guidelines to DEFRA/DECC's Conversion Factors for Company Reporting, Table 1b
Diesel/Gas oil	1900	Other: gN2O per MWh	2012 Guidelines to DEFRA/DECC's Conversion Factors for Company Reporting, Table 1b
Diesel/Gas oil	2.66	kg CO2 per litre	Fuel Combustion Intensity Tables, Environment Canada, 2009 figures. Table 4
Diesel/Gas oil	0.00013	kg CO2 per litre	Fuel Combustion Intensity Tables, Environment Canada, 2009 figures. Table 4
Diesel/Gas oil	0.0004	kg CO2 per litre	Fuel Combustion Intensity Tables, Environment Canada, 2009 figures. Table 4
Distillate fuel oil No 2	284.35	kg CO2 per MWh	2012 Guidelines to DEFRA/DECC's Conversion Factors for Company Reporting, Table 1d
Distillate fuel oil No 2	250	Other: gCH4 per MWh	2012 Guidelines to DEFRA/DECC's Conversion Factors for Company Reporting, Table 1d
Distillate fuel oil No 2	790	Other: gN2O per MWh	2012 Guidelines to DEFRA/DECC's Conversion Factors for Company Reporting, Table 1d
Distillate fuel oil No 2	2.725	kg CO2 per litre	Fuel Combustion Intensity Tables, Environment Canada, 2009 figures. Table 4
Distillate fuel oil No 2	0.006	Other: gCH4 per litre	Fuel Combustion Intensity Tables, Environment Canada, 2009 figures. Table 4
Distillate fuel oil No 2	0.031	Other: gN2O per litre	Fuel Combustion Intensity Tables, Environment Canada, 2009 figures. Table 4
Distillate fuel oil No 2	73.96	Other: kgCO2 per million BTU	Table C1 EPA mandatory GHG reporting rule 2009
Distillate fuel oil No 2	3	Other: kgCH4 per million BTU	Table C1 EPA mandatory GHG reporting rule 2009
Distillate fuel oil No 2	0.06	Other: kgN2O per million BTU	Table C1 EPA mandatory GHG reporting rule 2009
Distillate fuel oil No 6	75.1	Other: kgCO2 per million	Table C1 EPA mandatory GHG reporting rule 2009

Fuel/Material/Energy	Emission Factor	Unit	Reference
		BTU	
Distillate fuel oil No 6	3	Other: kgCH ₄ per million BTU	Table C1 EPA mandatory GHG reporting rule 2009
Distillate fuel oil No 6	0.6	Other: kgN ₂ O per million BTU	Table C1 EPA mandatory GHG reporting rule 2009
Propane	1.51	kg CO ₂ per litre	Fuel Combustion Intensity Tables, Environment Canada, 2009 figures. Table 3
Propane	0.024	Other: gCH ₄ per litre	Fuel Combustion Intensity Tables, Environment Canada, 2009 figures. Table 3
Propane	0.108	Other: gNO ₂ per litre	Fuel Combustion Intensity Tables, Environment Canada, 2009 figures. Table 3
Liquefied petroleum gas (LPG)	62.98	Other: kgCO ₂ per million BTU	Table C1 EPA mandatory GHG reporting rule 2009
Liquefied petroleum gas (LPG)	3	Other: gCH ₄ per million BTU	Table C1 EPA mandatory GHG reporting rule 2009
Liquefied petroleum gas (LPG)	0.06	Other: gNO ₂ per million BTU	Table C1 EPA mandatory GHG reporting rule 2009
Natural gas	205.08	kg CO ₂ per MWh	2012 Guidelines to DEFRA/DECC's Conversion Factors for Company Reporting, Table 1d
Natural gas	300	Other: gCH ₄ per MWh	2012 Guidelines to DEFRA/DECC's Conversion Factors for Company Reporting, Table 1d
Natural gas	120	Other: gNO ₂ per MWh	2012 Guidelines to DEFRA/DECC's Conversion Factors for Company Reporting, Table 1d
Natural gas	1.93	Other: kgCO ₂ e per m ³	Environment Canada : National Inventory: www.ec.gc.ca/ges-ghg/default.asp
Natural gas	1.89	Other: kgCO ₂ e per m ³	Environment Canada : National Inventory: www.ec.gc.ca/ges-ghg/default.asp
Natural gas	0.1	Other: gN ₂ O per million BTU	Table C1 EPA mandatory GHG reporting rule 2009
Kerosene	75.2	Other: kgCO ₂ per million BTU	Table C1 EPA mandatory GHG reporting rule 2009
Kerosene	3	Other: gCH ₄ per million BTU	Table C1 EPA mandatory GHG reporting rule 2009
Kerosene	0.6	Other: gN ₂ O per million BTU	Table C1 EPA mandatory GHG reporting rule 2009
Bituminous coal	93.91	Other: kgCO ₂ per million	Table C1 EPA mandatory GHG reporting rule 2009

Fuel/Material/Energy	Emission Factor	Unit	Reference
		BTU	
Bituminous coal	11	Other: gCH4 per million BTU	Table C1 EPA mandatory GHG reporting rule 2009
Bituminous coal	1.6	Other: gN2O per million BTU	Table C1 EPA mandatory GHG reporting rule 2009
Electricity	479.16	kg CO2 per MWh	2012 Guidelines to DEFRA/DECC's Conversion Factors for Company Reporting, Table 3a
Electricity	240	Other: gCH4 per MWh	2012 Guidelines to DEFRA/DECC's Conversion Factors for Company Reporting, Table 3a
Electricity	2940	Other: gN2O per MWh	2012 Guidelines to DEFRA/DECC's Conversion Factors for Company Reporting, Table 3a
Electricity	1761.59	lb CO2 per MWh	eGrid2010 version 1.1 May 2011
Electricity	1906.06	lb CO2 per MWh	eGrid2010 version 1.1 May 2011
Electricity	1118.41	lb CO2 per MWh	eGrid2010 version 1.1 May 2011
Electricity	1624.03	lb CO2 per MWh	eGrid2010 version 1.1 May 2011
Electricity	858.79	lb CO2 per MWh	eGrid2010 version 1.1 May 2011
Electricity	1252.57	lb CO2 per MWh	eGrid2010 version 1.1 May 2011
Electricity	1495.47	lb CO2 per MWh	eGrid2010 version 1.1 May 2011
Electricity	681.01	lb CO2 per MWh	eGrid2010 version 1.1 May 2011
Electricity	1551.52	lb CO2 per MWh	eGrid2010 version 1.1 May 2011
Electricity	1722.67	lb CO2 per MWh	eGrid2010 version 1.1 May 2011
Electricity	21.5	Other: lb CH4 per kWh	eGrid2010 version 1.1 May 2011
Electricity	23.6	Other: lb CH4 per kWh	eGrid2010 version 1.1 May 2011
Electricity	22.3	Other: lb CH4 per kWh	eGrid2010 version 1.1 May 2011
Electricity	24.5	Other: lb CH4 per kWh	eGrid2010 version 1.1 May 2011
Electricity	16.3	Other: lb CH4 per kWh	eGrid2010 version 1.1 May 2011
Electricity	17.8	Other: lb CH4 per kWh	eGrid2010 version 1.1 May 2011
Electricity	23.6	Other: lb CH4 per kWh	eGrid2010 version 1.1 May 2011
Electricity	28.3	Other: lb CH4 per kWh	eGrid2010 version 1.1 May 2011
Electricity	18.4	Other: lb CH4 per kWh	eGrid2010 version 1.1 May 2011
Electricity	29	Other: lb CH4 per kWh	eGrid2010 version 1.1 May 2011
Electricity	29.5	Other: lb N2O per kWh	eGrid2010 version 1.1 May 2011
Electricity	28.9	Other: lb N2O per kWh	eGrid2010 version 1.1 May 2011
Electricity	19.1	Other: lb N2O per kWh	eGrid2010 version 1.1 May 2011

Fuel/Material/Energy	Emission Factor	Unit	Reference
Electricity	22.4	Other: lb N2O per kWh	eGrid2010 version 1.1 May 2011
Electricity	13.6	Other: lb N2O per kWh	eGrid2010 version 1.1 May 2011
Electricity	14	Other: lb N2O per kWh	eGrid2010 version 1.1 May 2011
Electricity	24.6	Other: lb N2O per kWh	eGrid2010 version 1.1 May 2011
Electricity	6.2	Other: lb N2O per kWh	eGrid2010 version 1.1 May 2011
Electricity	25.9	Other: lb N2O per kWh	eGrid2010 version 1.1 May 2011
Electricity	29.2	Other: lb N2O per kWh	eGrid2010 version 1.1 May 2011
Electricity	100	kg CO2e per MWh	Electricity Intensity Tables, Environment Canada, 2009 figures, Ontario
Electricity	25	kg CO2e per MWh	Electricity Intensity Tables, Environment Canada, 2009 figures B.C.
Electricity	2	kg CO2e per MWh	Electricity Intensity Tables, Environment Canada, 2009 figures, Quebec
Electricity	550	kg CO2e per MWh	Electricity Intensity Tables, Environment Canada, 2009 figures, New Brunswick
Electricity	21	kg CO2e per MWh	Electricity Intensity Tables, Environment Canada, 2009 figures, Newfoundland
Electricity	0.936	Other: kg CO2e per kWh	IEA Report on CO2 Emissions from Fuel Combustion, 2012 Edition, Table of CO2 Intensity per kWh
Distillate fuel oil No 6	0.07740	Other: kg CO2e per MJ	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2: Energy, Tables 1.4 and 2.3
Diesel/Gas oil	0.07410	Other: kg CO2e per MJ	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2: Energy, Tables 1.4 and 2.3

Further Information

Improvements to emissions factors were made in 2012 with respect to last year, including the use of country specific electricity factors for the Patna, India facility as well as the use of Canadian province specific factors for different fuels.

Page: 8. Emissions Data - (1 Jan 2012 - 31 Dec 2012)

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Equity share

8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

380118

8.3

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

466599

8.4

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions which are not included in your disclosure?

Yes

8.4a

Please complete the table

Source	Scope	Explain why the source is excluded
--------	-------	------------------------------------

Source	Scope	Explain why the source is excluded
Indirect emissions from energy use in remote and small commercial offices	Scope 2	Difficulty of obtaining data and immateriality

8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data
Less than or equal to 2%	Data Gaps Assumptions Metering/ Measurement Constraints	All material sources of scope 1 emissions have been included and, where possible, sources verified to high levels of accuracy (EU ETS verification) have been used. However, for smaller sites such as offices and distribution centres, this level of data accuracy is not possible and supplier invoices have been used instead. Fleet data for employee travel has been consolidated using average emission factors for diesel cars, petrol cars and vans rather than calculated on individual car emissions as this data is not available.	Less than or equal to 2%	Data Gaps Assumptions Metering/ Measurement Constraints	All material sources of scope 2 emissions have been included and consumption figures based upon calibrated meters have been used. However for smaller sites such as offices and distribution centres this level of data accuracy is not possible and supplier invoices have been used which may be based upon non half hourly meters and less accurate meters, such sites though account for a small fraction of the total scope 2 emissions

8.6

Please indicate the verification/assurance status that applies to your Scope 1 emissions

Third party verification or assurance complete

8.6a

Please indicate the proportion of your Scope 1 emissions that are verified/assured

More than 90% but less than or equal to 100%

8.6b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Relevant standard	Attach the document
Limited assurance	ISAE3000	https://www.cdproject.net/sites/2013/48/12348/Investor CDP 2013/Shared Documents/Attachments/Investor-8.6b-C3-RelevantStatement/Investor-8.6b-VerificationDetails1/CC ISAE3000 statement - MCBC 2013 -FINAL.pdf

8.6c

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission
------------	--------------------------------------	-------------------	------------------------

8.7

Please indicate the verification/assurance status that applies to your Scope 2 emissions

Third party verification or assurance complete

8.7a

Please indicate the proportion of your Scope 2 emissions that are verified/assured

More than 90% but less than or equal to 100%

8.7b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Relevant standard	Attach the document
Limited assurance	ISAE3000	https://www.cdproject.net/sites/2013/48/12348/Investor CDP 2013/Shared Documents/Attachments/Investor-8.7b-C3-RelevantStatement/Investor-8.7b-VerificationDetailsS21/CC ISAE3000 statement - MCBC 2013 -FINAL.pdf

8.8

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization ?

Yes

8.8a

Please provide the emissions in metric tonnes CO2

5313

Further Information

We generate biogas from anaerobic digestion of waste water in on site effluent treatment plants. We have biogas generation in place at our Tadcaster brewery in the UK and at several sites in our Miller Coors JV in the US. In some cases biogas can replace up to 20% of the natural gas consumption of the site.

Page: 9. Scope 1 Emissions Breakdown - (1 Jan 2012 - 31 Dec 2012)

9.1

Do you have Scope 1 emissions sources in more than one country?

Yes

9.1a

Please complete the table below

Country/Region	Scope 1 metric tonnes CO2e
Canada	85742
United States of America	220139
United Kingdom	73321
India	917

9.2

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By business division
By facility
By GHG type
By activity

9.2a

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)
Molson Coors UK	73321
Molson Coors Canada	85742
Molson Coors International	917
Miller Coors JV	220139

9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Burton	35532	52.80592	-1.63925
Alton	8327	51.14765	-.97153
Tadcaster	7409	53.88283	-1.27214
Sharps	2027	50.55211	-4.89139
Patna	917	25.56332	84.86981
Vancouver	9756	49.27192	-123.14510

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Toronto	25612	43.67507	-79.59019
Montreal	24152	45.51747	-73.54857
St Johns	3626	47.57101	-52.71709
Moncton	1395	46.12859	-64.73987
Shobnall	18495	52.81056	-1.64891
Creemore	669	44.32527	-80.10579
Quebec Warehouse	1805	45.56613	-73.52815

9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	379410
CH4	478
	230

9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)
Stationary combustion	327241
Process emissions	27120
Mobile sources	23259

Activity	Scope 1 emissions (metric tonnes CO2e)
Offices	2499

9.2e

Please break down your total gross global Scope 1 emissions by legal structure

Legal structure	Scope 1 emissions (metric tonnes CO2e)
-----------------	--

Page: 10. Scope 2 Emissions Breakdown - (1 Jan 2012 - 31 Dec 2012)

10.1

Do you have Scope 2 emissions sources in more than one country?

Yes

10.1a

Please complete the table below

Country/Region	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling (MWh)
Canada	7272	117184	0
United States of America	409632	759881	0
United Kingdom	47645	96229	0
India	2049	2190	0

10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By business division
By facility
By activity

10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 emissions (metric tonnes CO2e)
Molson Coors UK	47645
Molson Coors Canada	7272
Molson Coors International	2049
Miller Coors JV	409632

10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 emissions (metric tonnes CO2e)
Burton	27935
Alton	5465
Tadcaster	5374
Sharps	745
Patna	2049

Facility	Scope 2 emissions (metric tonnes CO2e)
Vancouver	369
Toronto	4577
Montreal	95
Moncton	1870
St johns	95
Shobnall	6895
Creemore	124
Quebec Warehouse	14

10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2 emissions (metric tonnes CO2e)
Purchased electricity for process	321611
Purchased steam for process	127024
Purchased electricity for offices	6180

10.2d

Please break down your total gross global Scope 2 emissions by legal structure

Legal structure	Scope 2 emissions (metric tonnes CO2e)
-----------------	--

Further Information

The figures for purchased electricity for process include electricity consumption for production site offices, although these are considered to be minimal.

Page: 11. Energy

11.1

What percentage of your total operational spend in the reporting year was on energy?

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

11.2

Please state how much fuel, electricity, heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Fuel	1519490
Electricity	614380
Heat	0
Steam	371853
Cooling	0

11.3

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Natural gas	1091502
Diesel/Gas oil	13672

Fuels	MWh
Distillate fuel oil No 6	12680
Bituminous coal	346115
Biogas	35682
Other: Rice husk biomass	7649
Liquefied petroleum gas (LPG)	12189
Motor gasoline	10998

11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comments
Non-grid connected low carbon heat, steam or cooling, generation owned by company	43331	At our breweries in Tadcaster, Fort Worth, Irwingdale and Shenandoah, we treat effluent in anaerobic digesters and recover biogas for use as fuel in process heating. The biogas production can displace up to 20% of the natural gas consumption in a brewery. We are actively exploring ways to expand this best practice waste recovery to other breweries. At our plant in India we completed a project in 2012 to switch from furnace oil to rice husk biomass that is currently a waste product of local rice mills. This project is being managed as a Clean Development Mechanism activity. The emissions factor values of 0 tCO ₂ e/m ³ used are according to IPCC guidelines.

Further Information

Use of bituminous coal is exclusive to our Miller Coors JV operations and decreased 18% in 2012 with respect to the year before.

12.1

How do your absolute emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Decreased

12.1a

Please complete the table

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	3	Decrease	Emissions reduction activities include those specified in section 3.3b but also include production efficiency improvements that were not carried out specifically for the purpose of energy/GHG savings. A large contributor was reduced purchases of coal for producing process steam in the Miller Coors JV, in favour of natural gas.
Divestment	0		The divestment of the Chengde Brewery in 2012 led to a re-statement of the 2011 figures. It is therefore not expressed in this sections as a % change.
Acquisitions	0		The acquisition of the Patna Brewery in 2011 led to a re-statement of the 2011 figures. It is therefore not expressed in this sections as a % change.
Mergers	0		Not relevant
Change in output	2	Decrease	Volumes declined in the UK where the GHG intensity of purchased electricity is high. Volumes in Canada (lower GHG intensity for electricity) and the Miller Coors JV remained more or less flat.
Change in methodology	0		Not relevant
Change in boundary	0		Not relevant
Change in physical operating conditions	0		Changes in ambient temperatures, as well as the temperature of extracted water affect energy consumption in a material way. This impact is captured within the 'Other" reason explained below.
Unidentified	0		
Other	1	Increase	Total savings in 2012 from the previous year were 4% whereas changes in output and savings from specific reduction projects amount to a 5% decrease. The difference is very likely due to 'headwinds' related to a myriad of process-related events that impacted energy use.

12.2

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
.000099	metric tonnes CO2e	unit total revenue	1.6	Decrease	Energy efficiency and carbon reduction programs running throughout our global operations combined with higher revenues from sales have driven the decrease.

12.3

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
89.09	metric tonnes CO2e	FTE employee	5.8	Increase	The increase is due in large part to an important decrease in FTE relative to production.

12.4

Please provide an additional intensity (normalized) metric that is appropriate to your business operations

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
0.016260	metric tonnes CO2e	Other: hectolitre of product	3.6	Decrease	Energy efficiency and carbon reduction programs running throughout our global operations compensated for a drop in hl output which, all else being

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
					equal, would have led to an increase in the GHG intensity per unit of product.

Further Information

In 12.1, previous year's emissions have been re-calculated to take into account mergers, acquisitions and divestment in order to provide a more comparable trend. The acquisition of a brewery in Patna in June 2011 led to a change in the 2011 figures, as did the divestment of a brewery in China during 2012.

Page: 13. Emissions Trading

13.1

Do you participate in any emissions trading schemes?

Yes

13.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO ₂ e	Details of ownership
European Union ETS	Sun 01 Jan 2012 - Mon 31 Dec 2012	66987	0	51576	Facilities we own and operate

13.1b**What is your strategy for complying with the schemes in which you participate or anticipate participating?**

Our overall strategy for EU ETS is to work within our allocation limits as a Group by investing in emissions reduction, infrastructure and process optimisation projects along with good energy management. The philosophy is to invest in our own efficiency as opposed to paying for the efficiency of others.

The compliance position of each brewery in the EU ETS is forecast for the year forward and entire compliance period. Direct emissions are monitored on a weekly basis, allowing the sites to identify any potential shortfalls or excess allowances on a timely basis. Should a site fail to meet its cap, excess carbon from sites within the group that have achieved their cap limits will be transferred to make up any short falls. Any net shortfall of allowances in a particular year would first be covered by use of banked allowances from previous exercises.

Any net shortfall of allowances at Group level that could arise in Phase III of the EU ETS would be managed by acquiring allowances in the market in a manner that optimizes price risk.

13.2**Has your company originated any project-based carbon credits or purchased any within the reporting period?**

No

13.2a

Please complete the table

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits retired	Purpose, e.g. compliance
---------------------------------------	--------------	------------------------	----------------------------	---	--	-----------------	--------------------------

Attachments

[https://www.cdproject.net/sites/2013/48/12348/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/13.EmissionsTrading/Alton ETS Submission Report 2012.pdf](https://www.cdproject.net/sites/2013/48/12348/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/13.EmissionsTrading/Alton%20ETS%20Submission%20Report%202012.pdf)

[https://www.cdproject.net/sites/2013/48/12348/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/13.EmissionsTrading/Shobnal Maltings EU ETS Verification Report 2012.pdf](https://www.cdproject.net/sites/2013/48/12348/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/13.EmissionsTrading/Shobnal%20Maltings%20EU%20ETS%20Verification%20Report%202012.pdf)

[https://www.cdproject.net/sites/2013/48/12348/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/13.EmissionsTrading/Tadcaster ETS Submission Report 2012.pdf](https://www.cdproject.net/sites/2013/48/12348/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/13.EmissionsTrading/Tadcaster%20ETS%20Submission%20Report%202012.pdf)

[https://www.cdproject.net/sites/2013/48/12348/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/13.EmissionsTrading/Burton 2012 EU ETS Verification Report - Draft.pdf](https://www.cdproject.net/sites/2013/48/12348/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/13.EmissionsTrading/Burton%202012%20EU%20ETS%20Verification%20Report%20-%20Draft.pdf)

Page: 14. Scope 3 Emissions

14.1

Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
Purchased goods and services	Relevant, calculated	1357342	1.Data Types and Sources - The scope of the emissions includes MCC, MCBC UK, MCI and 42% of Miller Coors. It covers, purchased raw and processed agricultural materials, packaging materials, third party brewing and brewing under licence. - Primary activity data has been collected on purchase levels of raw materials and packaging materials in UK and Canada. Where material purchase data has not been available educated assumptions have been made based on volume brewed or packaged. - Emissions factors have been sourced from Ecoinvent database. Country specific or customised factors have been used where possible. Where a process performed by a supplier is equivalent to a Molson Coors Process, such as brewing or Malting LCA data from the Molson Coors Process has been used as a proxy for the supply		

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
			process if primary data is not available. 2. Data Quality: - Over all data quality is considered good. 3. Methods and assumptions: Emissions have been calculated according to GHG scope 3 protocol. Molson Coors LCA studies have been calculated to ISO 14040.		
Capital goods	Relevant, not yet calculated				Capital equipment for brewing includes many metallic vessels, pipework, conveyor belts and automated packaging solutions. Unitary GHG data from equipment manufacturers is scarce for the time being but MolsonCoors will work towards calculating this in the future.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	71175	Primary data for fuel use is collected from production and non-production sites as part of the Scope 1 and Scope 2 reporting. This activity data is multiplied by the respective 2012 DEFRA Scope 3 emissions factors for each fuel to derive GHG emissions from fuel and energy related activities excluding combustion.	100%	
Upstream transportation and distribution	Relevant, calculated	56749	1. Data Types and Sources: - The scope of the emissions includes MCC, MCBC UK, MCI and 42% of Miller Coors, it covers the transport of brewing materials (raw and processed agricultural ingredients) and packaging materials. - Data on average distance goods were transported to Molson Coors Site was collected from our suppliers. 2. Data Quality: - Data quality is good. 3. Methods and assumptions: - Emissions have been calculated according to GHG scope 3 protocol	100%	
Waste generated in operations	Relevant, calculated	2330	1. Data Types and Sources: - The scope of the emissions includes MCC, MCBC UK, MCI and 43% of Miller Coors. It covers the emissions associated with	100%	

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
			the disposal of wastes generated in breweries, malting's, offices and distribution warehouses. - Primary activity data on waste generation and disposal method is used. - Emissions factors specific to disposal method from county databases (such as DEFRA) have been used. 2. Data Quality: - Data Quality is very good and emissions have been assured by a third party. 3. Methods and assumptions: - Emissions have been calculated according to GHG scope 3 protocol		
Business travel	Relevant, calculated	3969	1. Data Types and Sources: - The scope of the emissions includes MCC, MCBC UK and MCI, and covers business-related travel by employees by air and rail. - Primary data is collected on mileage by classification of air travel and rail travel - DEFRA emissions factors for employee travel, differentiated by segment, are applied to global activity data. 2. Data Quality: - Data quality is fair. 3. Methods and assumptions: - Emissions have been calculated according to GHG scope 3 protocol and were verified by a 3rd party.	100%	
Employee commuting	Relevant, not yet calculated				Molson Coors is analyzing the viability of calculating GHG emissions from employee travel across all of our sites and offices.
Upstream leased assets	Not relevant, explanation provided				We do not lease any production facilities or assets that represent material sources of GHG emissions
Investments	Not relevant, explanation provided				The Company does not engage in project finance or other investment activities in specific GHG generating assets
Downstream transportation and	Relevant, calculated	38538	1. Data Types and Sources: - The scope of the emissions includes MCC and MCBC UK and covers	100%	

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
distribution			the transport of packaged beer to retail stores. - Data on mileage or transport fuel consumed is collected from 3rd party hauliers and appropriate emissions factors applied to calculate GHG emissions. 2. Data Quality: - Data quality is good. 3. Methods and assumptions: - Emissions have been calculated according to GHG scope 3 protocol and verified by a 3rd party.		
Processing of sold products	Relevant, not yet calculated				GHG emissions from processing of our sold products are associated with collection of returnable bottles from retail stores. No data is available for this category at this time.
Use of sold products	Relevant, calculated	67856	1. Data Types and Sources: - The scope of the emissions includes MCC, MCBC UK, MCI and 43% of Miller Coors. It covers the emissions associated with the use of products sold. Including refrigeration and emissions of process gasses. - Primary activity data on volumes of beer sold in different product types, including draft beer and small pack beer were collected. Assumptions on electricity used in cooling have been made on electricity use in cooling used in delivery of small pack and draft beer based on Molson Coors LCA work. - Emissions factors for electricity have been taken from Ecoinvent data base. Country specific or customised factors have been used where possible. 2. Data Quality: - Data Quality is fair. 3. Methods and assumptions: - Emissions have been calculated according to GHG scope 3 protocol. Molson Coors LCA studies have been calculated to ISO 14040.		
End of life treatment of sold products	Relevant, calculated	2402	1. Data Types and Sources: - The scope of the emissions includes MCC, MCBC UK, MCI and 43% of Miller Coors. It covers the emissions associated with		

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
			the disposal of packaging material associated with sold products. - Primary activity data on the mass and type of packaging materials, volumes of beer sold in different product types (including draft beer and small pack beer) were collected. Country level recycling and disposal method data were collected and used to base assumptions of end. - Emissions factors for waste disposal have been taken from Ecoinvent data base. Country specific or customised factors have been used where possible. 2. Data Quality: - Data Quality is good. 3. Methods and assumptions: - Emissions have been calculated according to GHG scope 3 protocol. Molson Coors LCA studies have been calculated to ISO 14040.		
Downstream leased assets	Relevant, calculated	132	1. Data Types and Sources: - The scope of the emissions includes the MNM Warehouse used to distribute beer in Ontario, Canada. - Primary activity data associated with the combustion of fuels for heating and on-site transportation as well as electricity consumption for lighting and other building use. - Emissions factors for electricity have been taken from Environment Canada's National GHG Inventory. 2. Data Quality: - Data Quality is good. 3. Methods and assumptions: - Emissions have been calculated according to GHG protocol.	100%	
Franchises	Not relevant, explanation provided				Molson Coors does not operate franchises
Other (upstream)					
Other (downstream)					

14.2

Please indicate the verification/assurance status that applies to your Scope 3 emissions

Third party verification or assurance complete

14.2a

Please indicate the proportion of your Scope 3 emissions that are verified/assured

More than 0% but less than or equal to 20%

14.2b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Relevant standard	Attach the document
Limited assurance	ISAE3000	https://www.cdproject.net/sites/2013/48/12348/Investor CDP 2013/Shared Documents/Attachments/Investor-14.2b-C3-RelevantStatementAttached/Investor-14.2b-VerificationDetails1/CC ISAE3000 statement - MCBC 2013 - FINAL.pdf

14.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

14.3a

Please complete the table

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Purchased goods & services	Change in methodology	10	Decrease	Methodology refined to more fully account for reusable packing materials, such as returnable glass bottles and kegs. Increase in use of primary supplier activity data of packaging materials and agricultural products purchased
Use of sold products	Change in methodology	88	Increase	Scope of calculation increased to include electricity used in cooling of sold products.
End-of-life treatment of sold products	Change in methodology	100	Increase	Not previously calculated.
Waste generated in operations	Emissions reduction activities	37	Decrease	Reduction in overall waste generated and increase in diversion of waste from landfill.
Upstream transportation & distribution	Change in methodology	100	Increase	Not previously calculated.
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Change in boundary	209	Increase	The Scope 3 emissions from fuel and energy use for the 42% share in the Miller Coors JV were added in 2012.
Business travel	Other: More travel due to acquisition	55	Increase	More long-haul business travel is the primary reason for the increase in GHG emissions in this category. This is largely the result of travel needed in the acquisition of Starbev in Central/Eastern Europe. Updated emissions factors (DEFRA 2012 Conversion factors) account for part of the increase as well.
Downstream transportation and distribution	Change in output	71	Increase	33% of the difference is due to increased distribution mileage in the UK business to move finished product. 25% of the increase is due to emissions related to HVAC of 3rd party warehouses being included in scope for the first time.

14.4

Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

Yes, our suppliers

Yes, our customers

14.4a

Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

Molson Coors global procurement team are working to embed sustainability in to how we purchase the good and services we rely upon. Our Supplier Standards set out the minimum expectations of suppliers around environmental, social and economic sustainability. We expect suppliers to make every effort to limit the environmental impact of their business operations and to have appropriate programs in place to help achieve this objective. Suppliers are required to demonstrate compliance against our environmental expectations for energy, emissions to air, natural resources, biodiversity, water, waste, and pollution. Our Standards also set out the minimum compliance standards for social and economic sustainability, including: ethical business practices, commercial standards, employment standards and community responsibilities. Suppliers are required to comply with all social and economic expectations.

We communicate the minimum expectations needed to do business with Molson Coors to all suppliers in the UK, US, and Canada, and will extend this to our international and central European business units in 2014. The strategies for engagement are determined by annual spend and category sustainability risk. At this stage sustainability risk has been assessed through category risk mapping, which takes in to account the importance of different sustainability risks (from internal quantitative, data such as LCA results, and external expert opinion) of each procurement category against the elements of or supplier standards, as well as some aspect of geographical risk.

For those suppliers who represent a high risk/spend, our Standards are shared during performance review meetings with the supplier signing and returning the 'Supplier Acknowledgement Receipt'. If a supplier is of medium risk/spend, we share our Standards via email supported by a note from our Chief Procurement Officer with the supplier again signing and returning the receipt. Finally, if a supplier is of low risk/spend we will communicate the need to comply via changes to our terms and conditions of purchase referenced on the reverse of all purchase orders raised.

Beyond simply ensuring compliance, the sharing of our Standards will help to prompt the assessment, management and mitigation of sustainability risks, including GHG emissions and climate change. We aim to develop success measures that will enable Molson Coors to measure the success of our supply engagement. We engage with our customers and consumers on Climate Change. Many of our customers request specific environmental data in tender processes, and we complete CDP supply chain module at the request of Wal-Mart. We have work with customers on specific projects on sustainability, such as engage UK farmers on water management with UK retailer ASDA and Agricultural charity LEAF, on simply sustainable water (<http://www.leafuk.org/leaf/farmers/ssw.eb>).

We recognise that engaging with our consumers is important, for example research we have conducted in North America indicates that our brands consumers want to know about the responsible behaviour of the brands they chose significantly more than the general population. We use on pack message our sustainably goals and progress using Our Beer Print commitment panel (<http://www.molsoncoors.co.uk/en/Responsibility/Case%20Studies/Alcohol%20Responsibility/Our%20Beer%20Print%20Commitment%20Panel.aspx>). We have seen positive response to this with 64% of consumers remembering seeing environmental messaging on pack, and 56% indicating that Our Beer Print Messaging

made them feel more positive towards the brand. This messaging was particularly successful where it linked to the brands key messages, for example Coors Light was able to adapt the wording of the message to link to current advertising campaign.

14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Number of suppliers	% of total spend	Comment
5132	100%	In 2013 we will communicate to all suppliers in the UK, US, and Canada.

14.4c

If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data

How you make use of the data	Please give details
Use in supplier scorecards	The deployment of our Supplier Standards will prompt the assessment of supplier's GHG emissions and climate change strategies. Sustainability data forms part of supplier evaluation and selection. For those suppliers who represent a high potential risk, we will engage and support the management and mitigation of risk and realize potential opportunities. We are introducing a new on-line tool (PROGRESS) to capture the sustainability benefits associated with Procurement led projects. This tool will also provide a central repository for supplier reports detailing GHG emissions and climate change strategies.

14.4d

Please explain why not and any plans you have to develop an engagement strategy in the future

Further Information

Molson Coors continues to improve its Scope 3 coverage by monitoring and reporting new sources of emissions, improving accuracy of life-cycle analysis, and collecting more data from our suppliers and distributors. We have also 3rd party verified part of our Scope 3 inventory for the first time and intend to expand on the scope of verification as the scope and accuracy of the data improves. Molson Coors believes that a more in-depth understanding of our life cycle GHG emissions provides very useful insight into the efficiency of our supply chain and where the opportunities for improvements exist. Better data and more standardized reporting will enhance this benefit in the future.

Module: Sign Off

Page: Sign Off

Please enter the name of the individual that has signed off (approved) the response and their job title

Jamie MacKinnon, Global Sustainability Senior Manager - Energy, Water & Transparency

CDP