

# Aspen Pharmacare Holdings - Climate Change 2018

## C0. Introduction

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### C0.1

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

Aspen is a pharmaceutical company listed on the Johannesburg Stock Exchange Limited ("JSE"). Aspen employs approximately 10 000 employees and its heritage dates back more than 160 years in South Africa. Aspen supplies branded and generic pharmaceutical products, infant milk nutritionals and consumer healthcare products in selected territories and into more than 150 countries worldwide. The Aspen brand has become synonymous with high quality and affordable products. Aspen recognises that climate change has potential direct and indirect implications on its operations and is therefore relevant to Aspen's sustainability objectives. As at 30 June 2017, the Group had 25 manufacturing facilities across 17 sites. The manufacturing sites contribute to the bulk of Aspen's carbon emissions and as such environmental reporting is focussed at a manufacturing site level. For this reporting period the reporting scope has been expanded to include Kama Industries (Ghana). Aspen divested of the manufacturing facility based in Toluca, Mexico, in May 2017 and consequently information relating to the Toluca site is only included up until March 2017.. The New Zealand New Milk facility is excluded from the reporting boundary as Aspen does not have operational control of this facility. The main contributors to Aspen's Scope 1 emissions are natural gas, refrigerants and fuel consumption while Scope 2 emissions are comprised of purchased electricity and steam.

### C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	July 1 2016	June 30 2017	No	<Not Applicable>
Row 2	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Row 3	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 4	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

## C0.3

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

Australia  
 Brazil  
 France  
 Germany  
 Ghana  
 Kenya  
 Mexico  
 Netherlands  
 South Africa  
 United Republic of Tanzania  
 United States of America

## C0.4

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

ZAR

## C0.5

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

Operational control

## C1. Governance

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## C1.1

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

Yes

### C1.1a

**(C1.1a) Identify the position(s) of the individual(s) on the board with responsibility for climate-related issues.**

Position of individual(s)	Please explain
Board/Executive board	One of the five strategic objectives that Aspen’s Board has approved is “To practice good corporate citizenship” and the Board is responsible for performance against this strategic objective by considering both the financial aspects of the business and impact that the business operations have on economic, physical and social environments in which Aspen operates. Aligned to the Group’s strategic objectives, the Board ratifies the Group’s material sustainability Key Performance Indicators (KPIs) annually, which includes, inter alia “Preserving the environment” and “Managing the efficient utilisation of scarce resources”. Achievement of the Group’s strategic and related sustainability objectives are monitored on the basis of these approved KPIs. Aspen’s Social and Ethics Committee (a subcommittee of the Board) is responsible for the governance of the Group’s social, environmental, human rights and ethics responsibilities in accordance with the relevant regulations, guidelines, recommendations.

### C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding business plans Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures	As per C1.1a) above, the Group’s sustainability objectives and related KPI’s are ratified by the Board on an annual basis. The Deputy Group CEO presents the Group’s performance against these objectives and KPI’s to the Board at each of its scheduled quarterly meetings. The Group’s Executive Risk Forum (which comprises the Deputy Group CEO, the Group Chief Operating Officer and the Group Finance Officer) presents the top enterprise-wide risks to the Group Audit; Risk Committee at the scheduled quarterly meetings, after which the risk profile is included in this Committee’s report to the Board. Should a significant climate-related risk be identified, the Board would review how the proposed risk mitigation has been considered in the business plan of the impacted business unit, and any major capital expenditure needed to implement the proposed mitigation would be included in the review and approval processes, as needed.

## C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Other committee, please specify (Social and Ethics Committee )	Assessing climate-related risks and opportunities	Quarterly
Other C-Suite Officer, please specify (Deputy Group Chief Executive)	Both assessing and managing climate-related risks and opportunities	Quarterly
Chief Operating Officer (COO)	Both assessing and managing climate-related risks and opportunities	As important matters arise
Other C-Suite Officer, please specify (Executive Group Strategic Operations)	Both assessing and managing climate-related risks and opportunities	As important matters arise
Other C-Suite Officer, please specify (Executive Head of Site)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

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

## C1.2a

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**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored.**

The responsibility for climate-related issues in the first instance lies with the Site Head, who is responsible for developing and executing the business unit strategy in alignment with the overall Group strategy. The Site Head is responsible for conducting a site risk assessment, which would include climate-related risks and for driving performance aligned to the Group's KPI's. In respect of operational aspects, Site Heads report into Group Executives who ensure strategic alignment across the Group's operations. Technical input is provided by the Executive Group Strategic Operations who is responsible for Group SHE and related environmental policies. In respect of overall performance, Site Heads are ultimately accountable to the Group Chief Executive and Deputy Chief Executive. In respect of enterprise risk management, significant and material risks are reported by the Site Heads to the Executive Risk Forum (comprised of the Deputy Chief Executive, the Group Operating Officer and the Group Finance Officer) who then provide the Group A&R Committee with a Group view on the top risks and related mitigations. The Group A&R Committee report on this risk profile to the Board.

## C1.3

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

Yes

## C1.3a

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**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues.**

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

All employees

**Types of incentives**

Other non-monetary reward

### Activity incentivized

Behavior change related indicator

### Comment

South African Operations employees are rewarded for active participation and innovative ideas during environmental campaigns which include climate change, water security and global warming. The rewards take the form of prizes and give-aways to participants in the campaigns.

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

All employees

### Types of incentives

Recognition (non-monetary)

### Activity incentivized

Energy reduction project

### Comment

The Australian facility has employee recognition programmes aimed at promoting positive behaviors and resource conservation. Energy consumption is reported internally on a monthly basis. Recognition is given to the management teams and employees involved in the initiatives.

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

Other, please specify (Engineering Managers )

### Types of incentives

Monetary reward

### Activity incentivized

Energy reduction project

### Comment

In the South African Operations, Energy Reduction and Efficiency projects form part of the Engineering Manager's key performance areas (KPA's), The KPA's are directly linked to the performance appraisal process and the awarding of performance based annual increases.

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

All employees

### Types of incentives

Recognition (non-monetary)

### Activity incentivized

Energy reduction target

### Comment

The Brazilian facility has a program for setting targets for atmospheric emissions. The results are measured monthly against the established targets.

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

Energy manager

### Types of incentives

Monetary reward

### Activity incentivized

Energy reduction target

### Comment

In Aspen France, incentives are given to energy managers and project participants when an energy reduction project is successfully implemented. The incentive is included as part of the management bonus.

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## C2. Risks and opportunities

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### C2.1

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

	From (years)	To (years)	Comment
Short-term	0	2	None
Medium-term	2	5	None
Long-term	5	20	20 years and beyond.

### C2.2

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

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

## C2.2a

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

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	1 to 3 years	Group-wide consideration of risks, with a formal measurement of the key environmental performance indicators for manufacturing facilities on a quarterly basis.

## C2.2b

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

Risk management is an embedded attribute of Aspen's corporate culture and is inherent in all its business decisions, activities and transactions. An integrated approach to risk management is implemented giving due considerations to economic, environmental and social indicators which impact the Company and its stakeholders. Strategic, operational, financial and compliance risk assessments are conducted annually at a business unit level and at a company level. Company-wide risks are identified by the Group Risk & Sustainability Manager and reported to the Executive Risk Forum, The risk assessment is performed in accordance with the approved Group Risk Management policy and Group Risk Management framework. The following aspects are considered with specific reference to climate change: (i) The effectiveness of environmental management systems. (ii) Responsible management of energy and carbon footprint. (iii) Environmental risks. The risk assessment methodology requires the assessment of the identified risk on two factors: the impact and the probability. A predefined 4-point scale defines the impact from catastrophic to minor taking into account the potential financial impact, impact on the viability of the current and future planned business model and supporting systems; impact on compliance to regulations/legislation/ contractual agreements/internal governance procedures; and/or impact on the Group's reputation and/or its stakeholders. The application of a likelihood assessment (from "almost certain" to "unlikely") to the impact rating results in an overall inherent risk rating. The effectiveness of risk mitigations are then assessed to determine the residual level of risk. These inherent and residual risk assessments are then used to rank risks relative to each other. Interdependent risks and/or risk concentrations are considered by the Executive Risk Forum and included in their Group risk report, as necessary.



The business unit integrated risk assessments are supported by the SHE risk assessments which are conducted using a systematic approach for the identification and assessment of all safety, health and environmental risks, including climate change. All activities, processes, plant machinery and energy sources are taken into consideration under normal, abnormal and emergency conditions. Parameters such as severity, occurrence and exposure are used to calculate the inherent and residual risk, and then prioritised according to the determined risk levels. Proposed solutions and resources required for mitigating significant risks and impacts are presented to Executive Management for approval. The status of the risk mitigation plans are reported on a regular basis during the site SHE performance review meetings

## C2.2c

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Our ability to ensure compliance with all current environmental regulation is relevant to all of our operations.
Emerging regulation	Relevant, always included	Emerging regulation relating to climate change increases the risk of non-compliance which could lead to fines, penalties and/or disruption to operations. Increased costs to adapt to new legislative requirements could also significantly impact both capital and operating costs.
Technology	Relevant, always included	In order to adapt to new legal requirements and/or adopt new technologies in line with our environmental policy objectives, technology risks are considered especially in relation to impact on capital investment required.
Legal	Relevant, always included	Linked to regulation above, legal risks relating to non-compliance to environmental related legislation is considered relevant to risk assessments.
Market	Relevant, always included	Risks arising from changing expectations from key stakeholders (for example, key customers and end consumers) are considered relevant, especially in respect of "social licence to operate" and reputational impacts.
Reputation	Relevant, always included	Usually as a consequence of not managing one of the other categories of risk, reputational risks are considered at both the Group and at the business unit level.
Acute physical	Relevant, always included	Physical risks are considered as part of the business continuity risk assessment process, and would include risk related to extreme weather events.
Chronic physical	Relevant, sometimes included	Chronic physical risks are relevant, but may not be discretely assessed in risk management processes, unless impacts are already being experienced. For example, changing weather patterns which may be contributing to the drought experienced in parts of South Africa. Water risk assessments are being conducted and will be expanded for climate change related risks going forward.
Upstream	Relevant, sometimes included	Climate change risks could impact the reliability of supply and costs associated with suppliers of raw materials (many of which are plant based), API and intermediary suppliers as well as suppliers of utilities (water, gas, fuel, electricity). While these risks are considered to some extent, this would tend to be in the short term horizon (and when impacts are already becoming evident), rather than in a longer term.

	Relevance & inclusion	Please explain
Downstream	Relevant, not included	Due to the complexities of the downstream supply chain it is not feasible to collect this data.

## C2.2d

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

Risks and opportunities are prioritised by the business unit management teams with reference to the impact of such risks to business sustainability, the value and opportunity cost of the applied environmental resources to the business, and the Group's strategic objectives. This is done in consultation with Group executives. Based on the inherent risk levels and current levels of risk mitigation (residual risk), risks are ranked and prioritised.

Key risks/opportunities and the implementation of proposed mitigations/strategies are monitored by business unit management on an ongoing basis. The status of material risks is reported to the Executive Risk Forum on, at least, a quarterly basis although issues can be escalated at any time.

Management's self-assessment of the risk mitigation plan effectiveness is substantiated using the combined assurance model of internal and externally obtained assurances. Environmental legal compliance audits are conducted in accordance with an assurance plan. The material sustainability key performance indicators including environmental indicators, which are reported in the Group's Integrated Report, are verified by external auditors annually. Through the Group's risk management processes and integrated reporting, the Audit & Risk Committee and Social & Ethics Committee monitor compliance and initiatives towards responsible environmental management on behalf of the Board. In this way, sustainability objectives are integrated into the risk management process and monitored by the Board collectively.

## C2.3

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

Yes

## C2.3a

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

### Identifier

Risk 1

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

Direct operations

### Risk type

Transition risk

### Primary climate-related risk driver

Policy and legal: Mandates on and regulation of existing products and services

### Type of financial impact driver

Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

### Company- specific description

South Africa is amongst the world's most carbon-intensive economies. Recognising the importance of reducing carbon emissions and foreseeing the benefits that a low carbon economy can bring, the South African government has committed to ambitious greenhouse gas emission reductions of 34% by 2020 and 42% by 2025. This resulted in the formulation the Carbon Tax legislation. The Draft Carbon Tax Bill was released for comment in December 2017 and provides for the following: Tax free thresholds: • A basic 60 per cent tax-free threshold during the first phase of the carbon tax, from implementation date up to 2020; • An additional 10 per cent per cent tax-free allowance for process emissions; • Additional tax-free allowance for trade exposed sectors of up to 10 percent; • A carbon offset tax-free allowance of 5 to 10 percent. The combined effect of all of the above tax-free thresholds will be capped at 95 percent, and an initial marginal carbon tax rate of R120 per ton CO<sub>2</sub>-e will apply. However taking into account all of the above tax-free thresholds, the effective carbon tax rate will vary between R6 and R48 per ton CO<sub>2</sub>-e. Should this carbon tax be levied after the tax-free basic threshold of 60% of Scope 1 GHG emissions before allowances and offsets, Aspen Pharmacare would incur additional costs and these have been estimated, however, there are still some uncertainties with regard the Draft Regulations i.e. the alignment of the Carbon tax and other regulations such mandatory GHG reporting and electricity environmental levies, cost of administration and longer-term certainty on the tax liability are unclear. These uncertainties make it difficult for the full impact to be calculated.

### Time horizon

Short-term

### Likelihood

Virtually certain

### Magnitude of impact

Medium-low

### Potential financial impact

300000

### Explanation of financial impact

The Carbon Tax Policy Paper refers to the implementation of a carbon tax rate of R120 per ton of CO<sub>2</sub>e increasing at 10 per cent per annum during the first phase. When the 60% tax-free allowances and additional relief are taken into account, the effective tax rate will range between R6- R48 per ton of CO<sub>2</sub>e. Based on the current proposed tariff structure the potential impact is estimated to be under R300 000 for the South African Operations.

### Management method

In line with Aspen's environmental management principles, Aspen has proactively implemented energy conservation and optimisation projects. The company's commitment to the conservation of scarce resources will assist with mitigation of this risk.

### Cost of management

0

### Comment

Variable costs depending on projects.

### Identifier

Risk 2

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

Direct operations

### Risk type

Transition risk

### Primary climate-related risk driver

Technology: Costs to transition to lower emissions technology

### Type of financial impact driver

Market: Increased production costs due to changing input prices (e.g., energy, water) and output requirements (e.g., waste treatment)

### Company- specific description

The Draft Climate Change Bill 2018 confirms that climate change is already a measurable reality and presents the South African Government's vision for an effective climate change response and long-term plans in creating a low-carbon economy and society. Currently, electricity in South Africa is generated through the use of relatively cheap non-renewable resources. Should the country move towards greener technologies, it is anticipated that the cost of electricity will increase.

### Time horizon

Short-term

### Likelihood

Virtually certain

**Magnitude of impact**

Medium

**Potential financial impact**

0

**Explanation of financial impact**

The draft billed has recently been released for comment and the potential financial impact has not been assessed as yet .

**Management method**

In line with Aspen's environmental management principles, Aspen has proactively implemented energy conservation and optimisation projects. The company's commitment to the conservation of scarce resources will assist with mitigation of this risk.

**Cost of management**

0

**Comment**

Variable costs depending on projects.

**Identifier**

Risk 3

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

Direct operations

**Risk type**

Physical risk

**Primary climate-related risk driver**

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

**Type of financial impact driver**

Other, please specify (● Increased operating costs )

**Company- specific description**

Fine chemicals corporation in Cape town is based in an area which has been experiencing severe drought conditions which pose a risk to supply and safety (lack of water or inadequate water pressure for firefighting). The site identified a number of water conservation and efficiency initiatives and investigated alternative water sources in mitigation of this risk. Implementation of mitigation programs identified is in progress.

**Time horizon**

Long-term

**Likelihood**

Very likely

**Magnitude of impact**

High

**Potential financial impact**

0

**Explanation of financial impact**

The quantum of the potential financial impact is unknown, however, the cost of water could increase due to the potential tariff increase levied by the municipality in an attempt to decrease consumption and additional treatment of water from alternative sources. The facility would also incur capital expenditure costs in order to secure alternate water supply and to install water pressure regulators.

**Management method**

Installation of borehole and water purification plant to supplement municipal water supply.

**Cost of management**

12000000

**Comment**

Approximately R12 million capital investment is required for installation of the borehole, waste disposal of waste generated by the purification process.

**Identifier**

Risk 4

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

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Policy and legal: Mandates on and regulation of existing products and services

**Type of financial impact driver**

Technology: Costs to adopt/deploy new practices and processes

**Company- specific description**

Aspen Nutritionals in Johannesburg is investing in additional effluent processing capacity in the near future to avert risk of running out of processing capacity on its effluent operations. In addition, the site is investing in a stainless steel buffer dam and a refrigerated sampler for the water treatment plant.

**Time horizon**

Short-term

**Likelihood**

Likely

**Magnitude of impact**

Medium-low

**Potential financial impact**

6300000

**Explanation of financial impact**

Cost of installation, effluent management and effluent processing operations.

**Management method**

Increasing the effluent treatment plant capacity and efficiency in order to meet future demand.

**Cost of management**

1390000

**Comment**

Responsible wastewater management is a key sustainability KPI for the Aspen Nutritional (Johannesburg) facility. Anticipated expense drivers are capital investment in the processing plant and running cost of effluent processing operations.

**Identifier**

Risk 5

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

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Policy and legal: Mandates on and regulation of existing products and services

**Type of financial impact driver**

Technology: Write-offs and early retirement of existing assets due to technology changes

**Company- specific description**

Aspen makes use of HVAC and associated refrigerants in order to maintain the required environment for manufacture. As per the requirements of the Montreal Protocol, Aspen is required to seek alternative “ozone-friendly” refrigerants as per the mandatory timelines. The Montreal Protocol on Substances that Deplete the Ozone Layer is widely regarded as the world’s most successful environment protection agreement. It is the only treaty with universal ratification, with all 197 member countries of the United Nations having accepted legally-binding obligations to phase out the production and consumption of ozone-depleting substances. The Protocol sets out a mandatory timetable for the phase out of ozone-depleting substances hydrochlorofluorocarbons (HCFC), such as R22 for developed and developing countries. R-22 has come under the spotlight because of its harmful impact on the ozone layer but also because it is classified as a greenhouse gas (GHG) which contributes to climate change. The deadline for developed countries for the complete phase-out is 2020 and 90% reduction in usage of R22 by 2015. In Europe, all HCFC top-ups were prohibited from 1 January 2015. In developing countries such as South Africa, Kenya and Brazil, the deadline for the total ban of R22 is 2030.

**Time horizon**

Medium-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium-high

**Potential financial impact**

0

**Explanation of financial impact**

The exact financial impact for the Group has not been quantified and will differ from country to country. Capital expenditure will be required for the replacement and refurbishment of HVAC units. In addition a change to alternative refrigerants could increase the operational costs of the HVAC units.

**Management method**

The Aspen facilities have completed an inventory of all ozone-depleting substances and sites such as the Port Elizabeth site, Nutritionals site in Johannesburg and Vallejo in Mexico have developed a phase-out plan with respect to the use of Ozone depleting substances. Possible solutions include: 1. The replacement of existing units with new units that use alternatives to R22 such as R407c, R404a or Ammonia This is the most expensive but simplest option. 2. Conversion of existing units to enable them to utilise alternatives to R22 substitutes. While both options will incur costs, it is anticipated that the price of R22 will increase once the ban and import prohibition is in place.

**Cost of management**

0

**Comment**

The total cost has not between been established although the average cost of a chiller unit is between R1,5 and R3 million. The average cost of a small air conditioner is between R5000 and R10 000.

**Identifier**

Risk 6

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

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Policy and legal: Mandates on and regulation of existing products and services

**Type of financial impact driver**

Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

**Company- specific description**

In Kenya, under the Air Quality Regulations; 2014, there is provision for boiler emission measurement as well as other parameters measurements. Pursuant to this law, the business increased expenditure as annual emissions measurements have to be done to ensure compliance with the legislation. The increase in business cost is attributed to the monitoring checks to verify compliance with the given set parameters where the services have to be contracted out and paid for.

**Time horizon**



Current

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium-high

**Potential financial impact**

50000

**Explanation of financial impact**

This is the estimated cost of carrying out annual emission measurements and the application for an annual emission license.

**Management method**

To comply with legal requirements and ensure that the boilers are adequately serviced and clean fuel is utilised in Aspen's operations.

**Cost of management**

50000

**Comment**

This is the estimated cost of carrying out annual emission measurements and the application for an annual emission license.

**Identifier**

Risk 7

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

Direct operations

**Risk type**

Physical risk

**Primary climate-related risk driver**

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

**Type of financial impact driver**

Other, please specify (Increased operational costs )

**Company- specific description**

The water crisis in the Eastern Cape region in South Africa poses potential risks to the Port Elizabeth and East London facilities. The dam levels across the province dropped drastically between 2016 and 2018.

**Time horizon**

Current

**Likelihood**

Very likely

**Magnitude of impact**

Medium-high

**Potential financial impact**

0

**Explanation of financial impact**

The potential financial impact is not known at this stage.

**Management method**

The site is currently investigating long-term alternative water sources including purification of borehole water and desalination of seawater . The site has engaged with the municipality with respect to identifying potential solutions together with neighbouring companies.

**Cost of management**

0

**Comment**

The potential financial impact is not known at this stage.

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

Yes

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

Opp1

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

Direct operations

**Opportunity type**

Resource efficiency

**Primary climate-related opportunity driver**

Use of more efficient production and distribution processes

**Type of financial impact driver**

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

**Company- specific description**

In Aspen, all manufacturing facilities are required to include environmental indicators such as fuel consumption and electricity consumption for sustainability reporting. In line

with one of Aspen's key values, i.e. innovation, and commitment to compliance with its ISO 14001 Environmental Management Systems, the company strives for continual improvement. As such, this promotes energy conservation and efficiency projects which create investment and improvement opportunities for the sustainable development of the business. In addition, the Kenyan facility is required by the Energy Regulation Commission to carry out an energy audit every three years and to submit a report, including an energy investment plan which outlines how energy savings will be realised.

### Time horizon

Current

### Likelihood

Virtually certain

### Magnitude of impact

Medium

### Potential financial impact

0

### Explanation of financial impact

The financial impact is dependent on the amount of capital expenditure required to fund the resource conservation initiative identified. In 2016/2017 the following investments were made in energy and resource efficiency projects: 1. Cape Town Facility: approximately R1,900,000 2. French Facility: R2,550,000 3. Nutritionals plant in Johannesburg : R65,000.

### Strategy to realize opportunity

Resource availability, potential impact on maintenance of GMP conditions and changes to environmental legislation in each territory are factors applied in the approval and prioritisation of conservation projects. In addition, investment in energy efficient technology is given due consideration during the construction of new facilities and when replacing equipment and machinery.

### Cost to realize opportunity

0

### Comment

Costs are variable.

### Identifier

Opp2

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

Direct operations

### Opportunity type

Energy source

### Primary climate-related opportunity driver

Use of lower-emission sources of energy

### Type of financial impact driver

Reduced operational costs (e.g., through use of lowest cost abatement)

### Company- specific description

Due to the continuous rise in temperature and reduction in diurnal temperature changes each day as reported in the recent years, the South African and Kenyan facility are investigating opportunities to harness solar energy. Installation of solar panels and use of the sun as a source of energy will provide an alternative to the current energy sources in the facility. This could reduce the cost of electricity significantly.

### Time horizon

Medium-term

### Likelihood

Likely

### Magnitude of impact

Medium-high

### Potential financial impact

0

### Explanation of financial impact

Financial impacts for the projects not yet established.

### Strategy to realize opportunity

Extensive research is being conducted to ensure that the facility partners with a reputable service provider ensuring that the most feasible photovoltaic (PV) solution in terms of durability of structures and components, acceptable payback periods and annual price increases are identified.

### Cost to realize opportunity

0

### Comment

Financial impacts for the projects not yet established.

### Identifier

Opp3

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

Direct operations

### Opportunity type

Energy source

### Primary climate-related opportunity driver

Use of supportive policy incentives

### Type of financial impact driver

Reduced operational costs (e.g., through use of lowest cost abatement)

### Company- specific description

The German government is incentivising businesses to implement energy management systems by providing tax refunds and this also resulted in the installation of a 600 kW

CHP unit at the Aspen German facility .

### Time horizon

Current

### Likelihood

Virtually certain

### Magnitude of impact

Medium-high

### Potential financial impact

#### Explanation of financial impact

The German government is incentivising businesses to implement energy management systems by providing tax refunds. Aspen Bad Oldesloe, the German facility, received tax refunds of approximately R2, 852,900 (€193.417) in the 2013 /2014 financial year, approximately R1, 868, 176 (€125.656, 21) in the 2014- 2015 financial year and approximately R1,003,860 (€78 000) in the 2015-2016 financial year. For the 2016/2017 financial year, it is anticipated that the site will receive a tax refund of approximately R R1,487,430 (€93,935).

#### Strategy to realize opportunity

The German site successfully implemented the ISO 50001 energy management system to provides a systematic approach to achieve continual improvement of energy performance, including energy efficiency, energy use and consumption, as well as the accurate monitoring and reporting thereof in order to demonstrate the corresponding decrease in emissions. Due to resource conservation as a result of the installation of the Combined Heat and Power (CHP) plant, the German facility qualifies for annual tax refunds.

#### Cost to realize opportunity

13500000

#### Comment

The German site invested approximately € 65 000 (R945 000) to implement the ISO 50001 system and to cover the on-going expenses linked to maintenance and auditing. The CHP cost approximately R12, 480,000 (€970 000).

## C2.5

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

	Impact	Description
Products and services	Impacted	The process is not yet formalised.
Supply chain and/or value chain	Impacted	The process is not yet formalised.

	Impact	Description
Adaptation and mitigation activities	Impacted for some suppliers, facilities, or product lines	The process is not yet formalised.
Investment in R&D	Not evaluated	Not relevant for our business.
Operations	Impacted	The process is not yet formalised.
Other, please specify	Not evaluated	Not evaluated

## C2.6

---

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

	Relevance	Description
Revenues	Not evaluated	The process is not yet formalised.
Operating costs	Impacted	The process is not yet formalised.
Capital expenditures / capital allocation	Impacted	The process is not yet formalised.
Acquisitions and divestments	Not evaluated	Not yet evaluated
Access to capital	Not evaluated	Not yet evaluated
Assets	Not evaluated	Not yet evaluated
Liabilities	Not evaluated	Not yet evaluated
Other	Not evaluated	Not evaluated

## C3. Business Strategy

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### C3.1

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

Yes

### C3.1a

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

No, but we anticipate doing so in the next two years

## C3.1c

---

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

(i) Internal Process: Aspen's strategic objective, "To practise good corporate citizenship", supports the Group's objectives for climate change and responsible environmental management. To this end, Aspen's sustainability management initiatives promote the themes of "Preserving our environment" and "Managing efficient utilisation of scarce resources". These initiatives are monitored by the following material key performance indicators which are reported to the Board as per the agreed reporting timelines:

Volume of carbon emissions (bi-annually); Volume of waste recycled (quarterly);

Electricity consumed (quarterly); and Volume of water used (quarterly). These indicators flag areas of risks and opportunities within the environmental management systems and programmes. Aspen's business strategy is defined at a Board level and the Board is made aware of potential climate change risks and opportunities via existing reporting channels e.g. Audit & Risk Committee, Social & Ethics Committee and the Executive Risk Forum. Aspen's Group Environmental Management Principles formally describes the Group's commitment to the "Containment and reduction of our carbon footprint in our operations and in the broader supply chain in a technically and economically feasible manner through structured systems of environmental monitoring, reporting and management". This intent is integrated into strategies for the Group's manufacturing facilities, with formal conservation projects currently in progress at the facilities in South Africa, Australia, Kenya, Mexico, Brazil, France and Germany . Resource availability, cost and changes to environmental legislation in each territory are factors applied in the approval and prioritisation of conservation projects. In addition, investment in energy efficient technology is given due consideration during the construction of new facilities and when replacing equipment and machinery. Plans are in place to extend similar projects to other sites in the Group when appropriate.

ii) How the business strategy has been influenced: Resource availability, cost and changes to environmental legislation in each territory have played a role in the business strategy. With the ultimate goal of reducing Scope 2 and 3 emissions, the facilities have demonstrated increased commitment to resource conservation initiatives and the reduction in the quantity of waste disposed in landfills. For example, tax incentives offered in Germany supported the German site's implementation of an ISO 50001 energy management system and the installation of a Combined Heat and Power Unit . The South African Operations have adopted a zero waste to landfill strategy to support the Aspen Group Environmental Management Principles . In line with European legislation, none of the European facilities dispose of waste to landfill.

iii) Aspects influencing the strategy: Improving Aspen's carbon footprint as a responsible corporate citizen and potential regulatory changes (e.g. potential carbon tax

implementation in South Africa and the introduction of energy reduction targets in Germany and Australia) are the major aspects that have influenced Aspen's strategy. Sustainable access to scarce resources e.g. water, the rising cost and security of electricity supply in South Africa and business disruptions due to bad weather, have also been key drivers behind Aspen's strategy of resource optimisation and conservation.

iv) Short term strategy (1-5 years): Although Aspen has not yet set formal targets linked to climate change; Aspen has implemented resource conservation projects, which ultimately reduce our carbon emissions. An important component of our short-term strategy involves the energy efficient operation of utilities, which drive production processes and requirements for Good Manufacturing Practice, e.g. adjustment of the HVAC chiller controls, and management of HVAC load demand by the addition of a pre-cooling and dehumidification step prior to the main HVAC units.

v) Long term strategy (5 to 10 years): Aspen's long term strategy is to remain sustainable and to continue to deliver stakeholder value, be a good corporate citizen and ensure supply of quality, affordable medicines. Resource Conservation, in light of resource scarcity and price increases driven by climate change, and continuous improvement, are central to ensuring business sustainability.

vi) Strategic advantage: Aspen believes that resources such as energy and water will be further constrained in the future. Implementing proactive and voluntary management systems and programmes to increase resource efficiency and decrease consumption, will, therefore, be an advantage. These proactive systems will facilitate the management of future regulatory requirements and reduction of operational costs, resulting in a competitive advantage whilst fulfilling the Group's strategic objective of sustainably supplying affordable products to customers.

vii) Substantial business decisions that have been influenced by climate change include the following:

- The adoption of an internationally recognised environmental management system (ISO 14001) to formally manage continuous improvement projects linked to resource conservation and reduced environmental pollution at most of the manufacturing facilities, with certification awarded to the pharmaceutical and nutritional sites in South Africa , Mexico, France, Australia, Brazil and Germany. The Active Pharmaceutical Ingredient (API) facilities in Netherlands and South Africa are targeting towards certification by 2019.
- The German (ABO) and France (NDB) sites implemented an ISO 50001 certified energy management system. The system enabled ABO to implement a systematic approach for managing continual improvement with respect to energy efficiency, energy security, energy use and consumption. The continuous reduction in energy use will ultimately result in lower energy costs and greenhouse gas emissions.
- The expansion of the carbon footprint boundary for CDP reporting with the inclusion of additional manufacturing sites within the Aspen global structure.
- The prioritization of energy, water and waste reduction projects at all manufacturing sites within the Aspen global structure.



- Investment in energy efficient technologies as a sustainable input into manufacturing processes.

### C3.1g

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#### **(C3.1g) Why does your organization not use climate-related scenario analysis to inform your business strategy?**

To be considered in the future.

## C4. Targets and performance

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### C4.1

---

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

No target

### C4.1c

---

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

	Primary reason	Five-year forecast	Please explain
Row 1	We are planning to introduce a target in the next two years	An increase in the reporting of total energy consumption for the Aspen Group is expected over the next five years due to expansion projects currently in process.	Group-wide targets have not been implemented as yet although some business units have set individual targets at a site level. Focus is being given to implementing effective systems to measure energy usage and savings and to identify feasible conservation projects which will yield meaningful reductions within the Aspen Group. For example, significant work has been performed to establish appropriate intensity measures that take into account Aspen's varied production environments and provide a reliable baseline on which to base target reductions and measure performance. Once this is in place, the intention is to establish SMART (Specific, Measurable, Attainable, Realistic and Time-based) medium-term targets for energy conservation projects

## C4.2

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

## C4.3

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

Yes

### C4.3a

---

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

	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	7	0
To be implemented*	3	629.5
Implementation commenced*	3	25.63
Implemented*	17	1929.12
Not to be implemented	2	0

### C4.3b

---

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

**Activity type**

Energy efficiency: Processes

**Description of activity**

Compressed air

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

5.58

**Scope**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

255750

**Investment required (unit currency – as specified in CC0.4)**

1534500

**Payback period**

4 - 10 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

The Improved compressed air production system project was successfully implemented at Notre dame de Bondeville, France.

---

**Activity type**

Energy efficiency: Processes

**Description of activity**

Compressed air

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

1.86

**Scope**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

85250

**Investment required (unit currency – as specified in CC0.4)**

0

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Project to reduce the pressure by 1 bar was successfully implemented at Notre Dame de Bondeville, France.

---

**Activity type**

Energy efficiency: Processes

**Description of activity**

Process optimization

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

215.76

**Scope**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

5967500

**Investment required (unit currency – as specified in CC0.4)**

0

**Payback period**

<1 year

**Estimated lifetime of the initiative**

Ongoing

**Comment**

Reduction of energy with the implementation of a new energy efficient filling line was achieved successfully at Notre Dame de Bondeville, France.

---

**Activity type**

Energy efficiency: Processes

**Description of activity**

Combined heat and power

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

66.7

**Scope**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

0

**Investment required (unit currency – as specified in CC0.4)**

16538500

**Payback period**

4 - 10 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Reduction of annual Scope 2 emissions through the operation of a Combined Heat and Power (CHP) Plant was successfully implemented /achieved at the Bad Oldesloe facility in Germany. The CHP serves as an alternate source to external electrical energy, resulting in a decrease in the demand and use of the external electrical energy. The site's consumption of electrical energy and thermal energy is not changed by the operation of the CHP, but it will however generate a reduction in scope 2 and scope 3 CO2 emissions.

---

**Activity type**

Energy efficiency: Processes

**Description of activity**

Process optimization

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

10.75

**Scope**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

110504

**Investment required (unit currency – as specified in CC0.4)**

33050

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

&lt;1 year

**Comment**

Reduction of voltage through Reconfiguring the Miniature Circuit Breaker (MCB) settings and changing of the mains (Moulded case Circuit Breaker) MCCB circuitry was successfully implemented at Aspen's Kenyan facility.

---

**Activity type**

Energy efficiency: Processes

**Description of activity**

Process optimization

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

16.12

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

132605

**Investment required (unit currency – as specified in CC0.4)**

33050

**Payback period**

<1 year

**Estimated lifetime of the initiative**

<1 year

**Comment**

Reduction of the crest factor project successfully implemented at Aspen's Kenyan facility.

---

**Activity type**

Energy efficiency: Processes

**Description of activity**

Process optimization

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

17.99

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

852500

**Investment required (unit currency – as specified in CC0.4)**

122760000

**Payback period**

Please select

**Estimated lifetime of the initiative**

Please select

**Comment**

Efficient use of natural gas resulting in reduced CO2 emissions at Aspen's Netherlands facility.

---

**Activity type**

Energy efficiency: Processes

**Description of activity**

Cooling technology

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

11.73

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

426250

**Investment required (unit currency – as specified in CC0.4)**

2728000

**Payback period**

4 - 10 years

**Estimated lifetime of the initiative**

Please select

**Comment**

Energy reduction was achieved through the reduction of air refreshment rates and combined heating in one of the warehouses at the Aspen's Netherlands facility.

---

**Activity type**

Energy efficiency: Building services

**Description of activity**

Lighting

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

227.79

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

139350

**Investment required (unit currency – as specified in CC0.4)**

766000

**Payback period**

4 - 10 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Replacement of light fittings with high-efficiency LED fittings installed at the South African East London facility .

---

**Activity type**

Energy efficiency: Building services

**Description of activity**

HVAC

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

396

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

446400

**Investment required (unit currency – as specified in CC0.4)**

1093680

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Removal of two chillers and supporting cooling towers by shifting the Finished Goods Warehouse cooled water supply to other existing Chillers used in Liquid Manufacturing, resulted in a significant energy reduction at the Australian facility.”

---

**Activity type**

Energy efficiency: Building services

**Description of activity**

HVAC

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

243

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary



**Annual monetary savings (unit currency – as specified in CC0.4)**

212040

**Investment required (unit currency – as specified in CC0.4)**

435240

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Removal of one chiller by shifting the chilled water load to the existing Rx chilled water systems resulted in reduced energy consumption at the Australian facility.

---

**Activity type**

Energy efficiency: Building services

**Description of activity**

HVAC

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

260

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

228780

**Investment required (unit currency – as specified in CC0.4)**

167400

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Movement of staff from a 2 storey office block and shutting down the HVAC services in this building resulted in significant reduction in energy consumption at the Australian facility.

---

**Activity type**

Energy efficiency: Building services

**Description of activity**

Lighting

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

147

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

128340

**Investment required (unit currency – as specified in CC0.4)**

446400

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

LED lighting project implemented in selected areas at the Australian facility.

---

**Activity type**

Energy efficiency: Processes

**Description of activity**

Refrigeration

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

0

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

0

**Investment required (unit currency – as specified in CC0.4)**

1813000

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Elimination of Refrigerant R22 and replacing it with more environmentally friendly refrigerants has resulted in lower Scope 1 emissions for the Vallejo site in Mexico.

**Activity type**

Energy efficiency: Processes

**Description of activity**

Refrigeration

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

0.15

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

0

**Investment required (unit currency – as specified in CC0.4)**

4510500

**Payback period**

<1 year

**Estimated lifetime of the initiative**

11-15 years

**Comment**

New energy efficient compressors successfully installed at the Vallejo site in Mexico.

---

**Activity type**

Energy efficiency: Processes

**Description of activity**

Heat recovery

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

308.4

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

790500

**Investment required (unit currency – as specified in CC0.4)**

1674000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Warm water system automation project resulting in heat recovery and reduced energy usage was successfully implemented at the Vallejo facility in Mexico.

**Activity type**

Energy efficiency: Building services

**Description of activity**

Lighting

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

1.03

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

800

**Investment required (unit currency – as specified in CC0.4)**

2500

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Lighting project successfully implemented at one of the warehouses at the Port Elizabeth site.

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

Method	Comment
Dedicated budget for energy efficiency	Investment in emission reduction activities is primarily driven by Aspen's commitment to continual improvement as a responsible corporate citizen, in response to potential future regulatory changes, sustainable access to scarce resources e.g. water, and the rising cost and security of electricity supply. Energy efficiency is factored into all expansion and replacement projects and project teams are tasked with ensuring that equipment and processes are designed, procured and installed accordingly to consume the least possible amount of natural resources.

Method	Comment
Employee engagement	Awareness campaigns on energy conservation and carbon footprint reduction are rolled out at all manufacturing sites on internationally recognised days such as World Environment Day and World Water Day.

## C4.5

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

No

## C5. Emissions methodology

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### C5.1

---

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

#### Scope 1

**Base year start**

July 1 2011

**Base year end**

June 30 2012

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

6774

**Comment**

This is the first year that our emission calculation and methodology were externally verified.

#### Scope 2 (location-based)

**Base year start**

July 1 2011

**Base year end**

June 30 2012

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

88008

**Comment**

This is the first year that our emission calculation and methodology were externally verified.

### Scope 2 (market-based)

**Base year start**

**Base year end**

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

0

**Comment**

Not yet established

## C5.2

---

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

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

## C6. Emissions data

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### C6.1

---

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

**Row 1**

**Gross global Scope 1 emissions (metric tons CO2e)**

48435

**End-year of reporting period**

<Not Applicable>

**Comment**

Scope 1 total emissions for all 11 sites. The Aspen reporting boundary has increased significantly from 2011 when the base year was established.

## C6.2

---

**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.****Row 1****Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We are reporting a Scope 2, market-based figure

**Comment**

9 facilities are reporting a location-based figure and 2 operations in France and Germany have electricity supplier emission factors.

**C6.3****(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?****Row 1****Scope 2, location-based**

158157

**Scope 2, market-based (if applicable)**

2080

**End-year of reporting period**

<Not Applicable>

**Comment**

9 facilities are reporting a location-based figure and 2 operations in France and Germany have electricity supplier emission factors.

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

Yes

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

**Source**

Corporate offices in South Africa i.e. Durban and Woodmead, Mexico City and Sydney Australia were excluded from the calculation.

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

Emissions are not relevant

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

Emissions are not relevant

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

Emissions are not relevant

**Explain why the source is excluded**

As per a study that was conducted in 2010, the emissions generated by the South African corporate offices were found to be negligible. Using this rationale, it was concluded that energy consumption in the corporate offices is very low in comparison to the consumption in manufacturing operations, therefore, will be excluded.

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## C6.5

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

**Purchased goods and services****Evaluation status**

Relevant, calculated

**Metric tonnes CO<sub>2</sub>e**

1547897

**Emissions calculation methodology**

Methodology used is based on GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Emission factors sources from DEFRA 2017

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

100

**Explanation**

Water supply emission factor is 0.344 Water Treatment emission factor is 0.708

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

Not relevant, explanation provided

**Metric tonnes CO<sub>2</sub>e**

0



**Emissions calculation methodology**

None

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

0

**Explanation**

This category has been excluded due to lack of available data and the insignificance in the quantity of emissions relative to the other categories. This is in accordance to the guidance by the World Resources Institute.

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

Not relevant, explanation provided

**Metric tonnes CO2e**

0

**Emissions calculation methodology**

None

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

0

**Explanation**

Fuel used in the production of steam is excluded because it is utilised by service providers. The purchased steam Aspen uses is included in Scope 2 calculation.

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

Not relevant, explanation provided

**Metric tonnes CO2e**

0

**Emissions calculation methodology**

None

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

0

**Explanation**

This category has been excluded due to lack of available data and the insignificance in size of emissions relative to the other categories. This is in accordance in accordance to the guidance by the World Resources Institute

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

Relevant, calculated

**Metric tonnes CO2e**

192578

**Emissions calculation methodology**

Methodology used is based on GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Emission factors sources from DEFRA 2017

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

100

**Explanation**

Source of Emission Factors: DEFRA-Waste Disposal. Waste Data is provided by our service providers and the following waste types were considered: General waste: Landfill and Energy Recovery Glass: Landfill and Recycling Cardboard and Paper: Landfill and Recycling Gardening Waste: Composting Plastic: Landfill, Reuse and Recycling Scrap Metal: Recycling Wood: Recycling and Reuse

**Business travel****Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

10960.39

**Emissions calculation methodology**

Methodology used is based on GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Emission factors sources from DEFRA 2017

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

100

**Explanation**

Business Travel data is only reported for the South African Operations, and is provided by Aspen's Travel service providers i.e. Car Hire and Air Travel.

**Employee commuting****Evaluation status**

Relevant, not yet calculated

**Metric tonnes CO2e**

0

**Emissions calculation methodology**

None

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

0

**Explanation**

Not calculated due to the lack of available data.

### Upstream leased assets

#### Evaluation status

Not relevant, explanation provided

#### Metric tonnes CO2e

0

#### Emissions calculation methodology

None

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

0

#### Explanation

Low volume of leased assets – emissions would be negligible.

### Downstream transportation and distribution

#### Evaluation status

Relevant, not yet calculated

#### Metric tonnes CO2e

0

#### Emissions calculation methodology

None

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

0

#### Explanation

We have engaged with some of our service providers - currently, there are no systems in place to calculate emissions exclusively for Aspen Pharmacare.

### Processing of sold products

#### Evaluation status

Not relevant, explanation provided

#### Metric tonnes CO2e

0

#### Emissions calculation methodology

None

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

0

#### Explanation

The complexity and extent of the value chain prohibit accurate calculations.

### Use of sold products

#### Evaluation status

Not relevant, explanation provided

#### Metric tonnes CO2e

0

#### Emissions calculation methodology

None

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

0

#### Explanation

The complexity and extent of the value chain prohibit accurate calculations.

### End of life treatment of sold products

#### Evaluation status

Not relevant, explanation provided

#### Metric tonnes CO2e

0

#### Emissions calculation methodology

None

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

0

#### Explanation

The complexity and extent of the value chain prohibit accurate calculations.

### Downstream leased assets

#### Evaluation status

Not relevant, explanation provided

#### Metric tonnes CO2e

0

#### Emissions calculation methodology

None

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

0

#### Explanation

Not calculated due to the lack of available data.

**Franchises****Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e**

0

**Emissions calculation methodology**

None

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

0

**Explanation**

Aspen Pharmacare has no franchises.

**Investments****Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e**

0

**Emissions calculation methodology**

None

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

0

**Explanation**

Not relevant to our business currently.

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

Not evaluated

**Metric tonnes CO2e**

0

**Emissions calculation methodology**

None

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

0

**Explanation**

None

**Other (downstream)**

**Evaluation status**

Not evaluated

**Metric tonnes CO2e**

0

**Emissions calculation methodology**

None

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

0

**Explanation**

None

**C6.7**

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

No

**C6.10**

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

0.0000050633

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

208672

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

41212588588

**Scope 2 figure used**

Location-based

**% change from previous year**

11

**Direction of change**

Decreased

**Reason for change**

The increase in this ratio is largely due to the revenue increasing (numerator) from newly acquired anaesthetics portfolios from AstraZeneca and GSK, contributing additional revenue of R7 billion, and significant expansion in China with revenue totalling R1,8 billion across the anaesthetics and thrombosis therapeutic classes.

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**Intensity figure**

35.5975776186

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

208672

**Metric denominator**

full time equivalent (FTE) employee

**Metric denominator: Unit total**

5862

**Scope 2 figure used**

Location-based

**% change from previous year**

14

**Direction of change**

Increased

**Reason for change**

The manufacturing employee base (denominator) decreased for 2017 which is the main cause for the decrease in this ratio. This was as a result of the manufacturing facility based in Toluca, Mexico being divested together with the operational restructuring that took place at PE, NDB, Oss and in Latin America.

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**C7. Emissions breakdowns****C7.1**

**(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide?**

No

**C7.2**

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

Country/Region	Scope 1 emissions (metric tons CO2e)
South Africa	9023
Germany	4582
Australia	2227
Netherlands	19541
Brazil	607
Kenya	894
Ghana	103
United Republic of Tanzania	1112
France	2347
United States of America	826
Mexico	7173

## C7.3

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

By facility

By activity

## C7.3b

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

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Port Elizabeth (South Africa)	3880	-33.9167	25.5667
East London (South Africa)	2250	-32.981	27.8282
Johannesburg (South Africa)	558	-25.9874	28.8282
Cape Town (South Africa)	2335	-33.9157	18.577
Bad Oldesloe (Germany)	4582	53.8009	10.3983
Dandenong (Australia)	2227	-37.981	145.215
Oss (Netherlands)	19541	51.6225	5.1
Vitoria (Brazil)	607	-20.3222	-40.3381
Beta (Kenya)	894	-1.2833	36.8167
Shelys (Tanzania)	1112	-6.8235	39.2695
Kama (Ghana)	103	5.556	-0.1969
Notre Dame de Bondeville (France)	2347	49.4431	1.0993
Sioux City (United States of America)	826	43.5499	-96.7003
Vallejo (Mexico)	7166	19.5018	-99.1674
Toluca (Mexico)	7	19.2877	-99.6488



## C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Mobile Fuel Combustion: Diesel	275
Mobile Fuel Combustion: Gasoline	346
Stationery Fuel Combustion: Diesel	238
Stationery Fuel Combustion: Heavy Fuel Oil	6231
Stationery Fuel Combustion: Natural Gas	33252
Fugitive Emissions: Refrigerants	8035
Liquid Petroleum Gas	58

## C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
South Africa	113577	0	120068	0
Germany	0	1659	0	4571
Australia	14699	0	13008	0
Netherlands	22747	0	35573	0
Brazil	226	0	2602	0
Kenya	275	0	985	0
Ghana	59	0	216	0
Tanzania	1121	0	2234	0
France	0	421	13366	0
United States of America	397	0	811	0
Mexico	5056		11135	

## C7.6

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

By facility

## By activity

## C7.6b

**(C7.6b) Break down your total gross global Scope 2 emissions by business facility.**

Facility	Scope 2 location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Port Elizabeth (South Africa)	77297	0
East London (South Africa)	16173	0
Johannesburg Nutritionals (South Africa)	8382	0
Cape Town (South Africa)	11725	0
Bad Osdesloe (Germany)	0	1659
Dandenong (Australia)	14699	0
Oss (Netherlands)	22747	0
Vitória (Brazil)	226	0
Beta (Kenya)	275	0
Shelys (Tanzania)	1121	0
Notre Dame de Bondeville (France)	0	421
Sioux City (United States of America)	397	0
Vallejo (Mexico)	4794	0
Toluca (Mexico)	261	0
Kama (Ghana)	59	0

## C7.6c

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

Activity	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Electricity	158157	2080
Steam	12222	0

## C7.9

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

Increased

### C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	Not Applicable.
Other emissions reduction activities	0	No change	0	Not Applicable.
Divestment	0	No change	0	Not Applicable.
Acquisitions	0	No change	0	Not Applicable.
Mergers	0	No change	0	Not Applicable.
Change in output	0	No change	0	Not Applicable.
Change in methodology	0	No change	0	Not Applicable.
Change in boundary	6825	Increased	3	Our emissions increased slightly by 3%,(approximately 6825 CO2e). This could be attributed to the addition of our Ghana site into the reporting boundary. as well as the commissioning of two new facilities at the Port Elizabeth site.
Change in physical operating conditions	0	No change	0	Not Applicable.
Unidentified	0	No change	0	Not Applicable.
Other	0	No change	0	Not Applicable.

### C7.9b

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

Location-based

**C8. Energy**

**C8.1**

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

More than 5% but less than or equal to 10%

**C8.2**

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

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

**C8.2a**

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired electricity	<Not Applicable>	4571	187776	192347

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	12222	12222
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	4571	199998	204569

## C8.2e

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	0	0	0	0
Heat	0	0	0	0
Steam	12222	12222	0	0
Cooling	0	0	0	0

## C8.2f

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

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

Grid mix of renewable electricity

**Low-carbon technology type**

Solar PV

Wind

Biomass (including biogas)

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

4571

**Emission factor (in units of metric tons CO<sub>2</sub>e per MWh)**

0.205

**Comment**

The German Plant makes use of a green energy mix made from renewable sources such as biomass, photovoltaic systems, and the wind.

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## C9. Additional metrics

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### C9.1

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

**Description**

Waste

**Metric value**

94007

**Metric numerator**

Measures in Tonnes

**Metric denominator (intensity metric only)**

Not measured currently

**% change from previous year**

0

**Direction of change**

No change

**Please explain**

Not applicable. We do not track waste intensities at this stage.

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## C10. Verification

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### C10.1

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

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

## C10.1a

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

**Scope**

Scope 1

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Moderate assurance

**Attach the statement**

1

[Aspen-2017-ERM-Assurance-Statement-v2.0.pdf](#)

**Page/ section reference**

Aspen assurance statement 2017 Page 1

**Relevant standard**

A1000AS

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

100

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## C10.2

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**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

No, we do not verify any other climate-related information reported in our CDP disclosure

## C11. Carbon pricing

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## C11.1

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**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

No, and we do not anticipate being regulated in the next three years

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## C11.2

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

No

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## C11.3

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

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

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## C12. Engagement

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### C12.1

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

Yes, our suppliers

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### C12.1a

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

**Type of engagement**

Information collection (understanding supplier behavior)

**Details of engagement**

Collect climate change and carbon information at least annually from suppliers



**% of suppliers by number**

0

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

0

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

0

**Rationale for the coverage of your engagement**

Aspen has prioritized engagement with key service suppliers who are able to supply the required level of data and where the frequency or volume of transactions is significant especially for Scope 3 emissions.

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

Aspen has been successful in obtaining statistics relating to business travel i.e. flights and car rentals in for our South African facilities. We also engage with our waste services provides at manufacturing sites and obtain monthly reports on waste management. In both cases, the data is supplied by the service provider to Aspen in the form of reports. In some cases, e.g. downstream transport and distribution, the service providers have not been able to isolate emissions generated due to Aspen products specifically.

**Comment**

Aspen will be engaging with more suppliers during our Life Cycle Assessment process for our ISO 14001:2015 system.

**C12.3**

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

- Direct engagement with policy makers
- Trade associations

**C12.3a**

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

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Carbon tax	Undecided	Aspen continues to consult with its external tax advisors and with relevant industry forums on this matter.	Consider the objective of carbon taxes in relation to other commercial factors which impact the sustainability of business in the relevant countries. Aspen does however support incentives that encourage a reduction in carbon emissions.

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Mandatory carbon reporting	Support	Aspen is committed to reporting to the Carbon Disclosure Project on an annual basis through the National Business Initiative.	Industry context to be applied in interpretation of information in CDP submissions, through direct engagement with the reporting company. Aspen South Africa is currently under the threshold for mandatory emission reporting to the Department of Environmental Affairs.
Clean energy generation	Support	The Clean Energy Regulator is the Government body responsible for administering legislation to reduce carbon emissions and increase the use of clean energy. Aspen Australia is a member of the "Australian Environment Business Network" (AEBN) AEBN's position is to:1.Make companies aware of climate change2.Provide forums for government bodies to present current and future environmental policies and seek corporate feedback, often before launching these policies.	Aspen Australia participates as required to support and follow the Clean Energy Regulator guidelines.
Cap and trade	Support	The EU emissions trading system (EU ETS) is a cornerstone of the European Union's policy to combat climate change and its key tool for reducing industrial greenhouse gas emissions cost-effectively	Aspen Oss (Netherlands) will participate in EU-ETS as required when the installed capacity exceeds 20 MW.
Energy efficiency	Support	Aspen Oss (Netherlands) is a signatory to MEE (Methodology Energy Efficiency), a long-term energy efficiency agreement for ETS companies, an agreement between the Dutch government and heavy industry.	Although participation in MEE covenant is voluntary, Aspen Oss has made an obligation to target an annual energy reduction of 2%.
Energy efficiency	Support	At COP17, Aspen Pharmicare made a commitment to participate in the Energy Efficiency Leadership Network (EELN), where an Aspen representative provides input on matters impacting climate change, particularly groups focusing on the healthcare and pharmaceutical industries.	Energy efficiency projects need to contribute to the business sustainability and must demonstrate return on investment. A national plan, which incentivises business to reduce their carbon footprint, will support the implementation of energy efficiency projects. In addition, national carbon reduction plans need to weight legislated obligations across industries appropriately with due regard of economic conditions impacting general industry sustainability in the relevant countries.

## C12.3b

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

Yes

## C12.3c

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

**Trade association**

Business Unity South Africa (BUSA)

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

Consistent

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

Business Unity in South Africa (BUSA) serves as the interface between businesses in SA and government on high level macroeconomic issues to ensure that businesses are able to play meaningful role in contributing to national objectives in a feasible manner for all stakeholders. BUSA supports the need to move to a lower carbon intensive economy, which is in the long term interest of South Africa. BUSA is in the process of engaging with the South African National Committee on Climate Change and the South African National Treasury on the following topics: • Requirement for carbon tax to ensure adherence to Paris Agreement • Introduction of duplicate carbon reduction mechanisms simultaneously • Need to develop suitable administration instrument

**How have you, or are you attempting to, influence the position?**

Aspen is an active member of BUSA and participates in industry initiatives to address climate change objectives in South Africa.

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## C12.3f

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

Aspen's business activities and stakeholder engagement processes are aligned to the Group's strategic objectives. This alignment is monitored by Group Executives and the Aspen Board. The Group SHE department, under the direction of Dr Morne Geyser, the Group Strategic Operations Executive, develops and promotes Aspen's environmental management principles and standards and monitors the alignment of business unit environmental management systems to the Group standards and ensures consistency across the operations. Aspen's climate change strategy promotes containment and reduction of the Group's carbon footprint within Aspen's operations, in a technically and economically feasible manner through systems of environmental reporting, monitoring and management. This intent is fulfilled directly across the manufacturing facilities through identification and evaluation of energy efficient technologies and implementation of energy conservation initiatives. Energy savings initiatives are monitored and reported on a quarterly basis through the sustainability KPI Board reporting process. Site management teams monitor progress more frequently where practical. The sites based in Port Elizabeth,

East London and Johannesburg in South Africa and Vallejo in Mexico are ISO 14001 certified. The sites in Germany and France are ISO 14001 and ISO 50001 certified. In the sites in Australia and Brazil attained ISO 14001 certification in 2016. This demonstrates Aspen's commitment to responsible environmental management practices in accordance with international standards. A combined assurance audit plan is in place to monitor on-going alignment of environmental policies, procedures and systems to the relevant ISO standards. Identified risks are prioritised and addressed. Progress is monitored by Group SHE, site management teams; Group Executives and the Social & Ethics Committee. In addition, all direct and indirect activities are communicated as per the ISO 14001 Environmental Management Systems Communication procedure for ISO certified facilities, ensuring consistency with the overall group environmental management principles and sustainability reporting structures. A culture of continuous improvement exists across the Aspen Group.

## C12.4

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

### Publication

In mainstream reports

### Status

Complete

### Attach the document

1

[Aspen-2017-Sustainability-Report-2017.pdf](#)

### Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Other, please specify (Information on Aspen's 6 capitals )

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### Publication

In voluntary sustainability report

### Status

Complete

### Attach the document

1

[Aspen-2017-Integrated-Report-LR.pdf](#)

### Content elements

Strategy

Emissions figures  
 Other, please specify (Information on Aspen's 6 capitals )

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## C14. Signoff

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### C-FI

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

No additional information.

### C14.1

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

	Job title	Corresponding job category
Row 1	Group Risk and Sustainability Manager	Other, please specify (Group Risk and Sustainability Manager )