

Module: Introduction**Page: Introduction****CC0.1****Introduction**

Please give a general description and introduction to your organization.

BARLOWORLD (BAW) is a distributor of leading international brands providing innovated rental, fleet management, product support and logistics solutions. The core divisions of the group comprise Equipment and Handling (earthmoving, power systems, materials handling and agriculture), Automotive and Logistics (car rental, motor retail, fleet services, used vehicles and disposal solutions, logistics management and supply chain optimisation). We offer flexible, value adding, integrated business solutions to our customers backed by leading global brands. The brands we represent on behalf of our principals include Caterpillar, Hyster, Avis, Budget, Audi, BMW, Ford, General Motors, Jaguar Land Rover, Mazda, Mercedes-Benz, Toyota, Volkswagen, Massey Ferguson and others.

BAW has a proven track record of long-term relationships with global principals and customers. We have an ability to develop and grow businesses in multiple geographies including challenging territories with high growth prospects. One of our core competencies is an ability to leverage systems and best practices across our chosen business segments. As an organisation we are committed to sustainable development and playing a leading role in empowerment and transformation. The company was founded in 1902 and as at 30 September 2014 had operations in 24 countries around the world with approximately 75% of just over 19 600 employees in South Africa.

BAW is driven by the maxim of creating long-term sustainable value for all its stakeholders. BAW's commitment to creating long-term value for all its stakeholders, driven by its Value Based Management approach, includes, inter alia:

- o Enhancing our customers' success by providing the integrated and environmentally sound solutions they require to remain competitive and meet their own sustainability objectives.
- o Mutually beneficial relationships with our principals and representing them in a way that enhances their success and reflects their sustainable development objectives.
- o Providing a safe and healthy workplace for employees where all have equal opportunities, are inspired to fulfil their ambitions and be proud ambassadors of BAW.
- o Conducting our operations in an environmentally responsible manner.
- o Identifying profitable growth opportunities and executing our strategic plans effectively and efficiently.
- o Engaging our stakeholders and being a responsible corporate citizen for all of them, including contributing to social and economic development of the communities in which we operate.

o Delivering top-quartile returns to our shareholders through responsible business practices.

This commitment is underscored by integrated management approach which requires accountability and responsibility for economic, social and environmental aspects of business activity. BAW has adopted a risk management approach, stakeholder engagement and strategic planning framework which allows for activities and management focus to be structured on the group's 6 strategic focus areas: Integrated customer solutions; People; Empowerment and transformation; Sustainable development; Financial returns and Profitable growth.

The sustainable development strategic focus area positions climate change response as central to the success of BAW's long-term value creation objectives. Although BAW's GHG emissions are fairly limited (273 986 tCO₂e scope 1 and 2 FY2014), it has placed significant focus on limiting emissions. The group has set an internal aspirational target of a 12% efficiency improvement for both its non-renewable energy consumption and GHG emissions (scopes 1 and 2) by 2014FYE off a 2009 baseline. While the majority of our operations have performed ahead of our aspirational group target, the overall group target was not achieved due mainly to a number of investments made in logistics road transportation business, which have higher energy and emissions intensities compared to our other businesses. Nonetheless, this target played a major role in focusing our efforts on energy efficiency with significant benefits for the organisation. BAW is still 4% better than its 2009 baseline intensity of 4.6 tCO₂e/R 1 million revenue.

BAW understands that the use of its services and the products it distributes has an impact on the carbon footprint of its customers. As such, BAW strives to conduct its activities in a responsible manner and offer products and services that reduce its customers' carbon footprint and limit their exposure to climate change risks.

CC0.2

Reporting Year

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

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

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

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

Enter Periods that will be disclosed

Tue 01 Oct 2013 - Tue 30 Sep 2014

CC0.3**Country list configuration**

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country
Andorra
Angola
Botswana
Cape Verde
China
Congo, Democratic Republic of the
France
Germany
Ghana
Lesotho
Malawi
Mozambique
Namibia
Portugal
Russia
Sao Tome and Principe
South Africa
Spain
Swaziland
United Arab Emirates
United Kingdom
United States of America
Zambia
Zimbabwe

CC0.4**Currency selection**

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

ZAR (R)

CC0.6**Modules**

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

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

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

Further Information

Organisational boundaries for collection of data reflect those used for financial purposes to ensure alignment between financial, social and environmental management and reporting. Data from operations in Democratic Republic of Congo and Zimbabwe is not consolidated into financial and non-financial reporting since these are not companies over which BAW exercises control (financial). This is in line with the organisational boundary setting approach as per the GHG Protocol Reporting Standard (control vs equity).

Attachments

[https://www.cdp.net/sites/2015/29/1529/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC0.Introduction/IR where we operate Pg6-7.pdf](https://www.cdp.net/sites/2015/29/1529/Climate%20Change%202015/Shared%20Documents/Attachments/ClimateChange2015/CC0.Introduction/IR%20where%20we%20operate%20Pg6-7.pdf)

Module: Management

CC1.1

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

Board or individual/sub-set of the Board or other committee appointed by the Board

CC1.1a

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

The Group Risk and Sustainability Committee, which is one of seven sub-board committees.

This Committee was established to assist the board in ensuring sound corporate governance, improving internal controls and monitoring company performance. The Committee assists the board in recognising all substantive sustainability, climate change, environmental and health and safety risks to which the group is exposed and in ensuring that the requisite management culture, practices, policies and systems are implemented and function effectively within the group. In giving consideration to Safety, Health and Environmental (SHE) aspects of the group, the committee receives SHE reports on a quarterly basis which includes climate change information such as emissions and energy usage as well as related efficiency improvement initiatives, and progress towards aspirational efficiency targets.

CC1.2

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

Yes

CC1.2a

Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Director on board	Monetary reward	Emissions reduction target Energy reduction target	Applicable to executive director. Achievement of defined group sustainability objectives which incorporate the group's aspirational efficiency improvement target for non-renewable energy and greenhouse gas emissions (scopes 1 and 2). The achievement of the aspirational efficiency improvement targets will contribute towards climate change mitigation.
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target Energy reduction target	Achievement of group strategy, including Sustainable development objectives which incorporate the group's aspirational efficiency improvement target for non-renewable energy and greenhouse gas emissions (scopes 1 and 2). The achievement of the aspirational efficiency improvement targets will contribute towards climate change mitigation..
Environment/Sustainability managers	Monetary reward	Emissions reduction target Energy reduction target	Achievement of and reporting on defined sustainability initiatives/objectives, energy efficiency and emission reduction targets. Included in the performance indicators are the group's aspirational efficiency improvement target for non-renewable energy and greenhouse gas emissions (scopes 1 and 2). The achievement of the aspirational efficiency improvement targets will contribute towards climate change mitigation.
All employees	Recognition (non-monetary)	Behaviour change related indicator	Employees are responsible for the sustainability of the organisation through the fulfilment of their respective roles in the context of the group's commitment to responsible custodianship of the environment.
Other: Divisional CEOs	Monetary reward	Emissions reduction target Energy reduction target	Achievement of divisional strategy which incorporates Sustainable development targets. The achievement of the aspirational efficiency improvement targets will contribute towards climate change mitigation.

Further Information

Page: CC2. Strategy

CC2.1

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

Integrated into multi-disciplinary company wide risk management processes

CC2.1a

Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Board or individual/sub-set of the Board or committee appointed by the Board	All countries and geographical regions in which the group operates are considered in the risk assessment process both at divisional and group levels.	> 6 years	BAW's risk assessment process (at BU, divisional and group) considers risks to the relevant operations in the short (1-3 years), medium (3-5 years) and long (>5 years) term. The risks are assessed in terms of timeframe, likelihood, impact and quality of controls.

CC2.1b

Please describe how your risk and opportunity identification processes are applied at both company and asset level

Risks and opportunities are identified through detailed, robust systematic strategic planning, risk and opportunity assessment procedures. A biannual High Level Risk Assessments (HLRA) engages various levels of the organisation and involves ongoing review and reporting at management, executive and board levels. Identification and assessment of risks and opportunities, including climate change, begins with divisional management at asset level. Divisional management is responsible for ongoing monitoring and management of their operating companies' risks and opportunities. A company level risk / opportunities assessment is also performed at a Group level attended by group executives. Risks and opportunities, both at a divisional (asset) level and group (company) level are reported to the group Risk and Sustainability Committee (RSC). The RSC assists the board in recognising material risks and in ensuring that the requisite risk management culture, practices, policies and systems are implemented and functioning effectively. The RSC also ensures that opportunities are considered and prioritised and that feasible opportunities are pursued. Through this robust process, initiatives are identified to address the material risks and act on feasible opportunities. In addition, an annual climate change risk and opportunity assessment is conducted at a Group (company) level which focuses on the identification, assessment and response to climate change related risks and opportunities. Given the limited materiality of climate change risk impacts, climate change risks feature relatively lower down on the HLRA process described above, hence the specific climate change risk assessment. This complements the broader assessment as such risks and opportunities are considered at the aggregated level which may provide different perspectives. This assessment is also reviewed by the group operations.

CC2.1c**How do you prioritize the risks and opportunities identified?**

The identified risks, including those of climate change, are recorded in divisional (asset) and group (company) risk registers, comprehensively assessed and given residual risk scores. This process results in a prioritisation of risks, based on inherent and residual scores to allow for the allocation of resources required to address the risks and to monitor performance in terms of risk management. Risks are then responded to through acceptance, transfer, avoidance or reduction strategies, taking risk appetites and tolerance levels into consideration. The same process is followed for opportunities. Opportunities are identified, assessed and ranked through a process of assessing the potential value of the opportunity to BAW. Resources are allocated to act on prioritised opportunities to capture value for the group. Where relevant, opportunities are incorporated into the group strategic planning process. The risk assessment process culminates in risk and opportunities registers. Progress in terms of realising the opportunities is monitored.

CC2.1d

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment
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CC2.2**Is climate change integrated into your business strategy?**

Yes

CC2.2a

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

- i. Impact on the strategy: BAW's strategic framework includes 6 strategic focus areas (SFAs) to which executive teams give priority ensuring sustainable value creation for all stakeholders. Sustainable development, encompassing climate change, is one of the 6 SFAs. Stakeholder engagement and consultation informs and guides group activities. This approach is institutionalised through structured strategic planning and risk management initiatives. The integration of strategy and sustainability is evident in group roles and responsibilities with both aspects covered in the portfolio of a group executive with responsibility for strategy and sustainability ensuring an integrated approach to stakeholder value creation. BAW's strategic planning framework is cascaded throughout the organisation and adapted for each operation. BAW's strategic focus areas are supported by critical success factors, appropriate action plans and measurable performance indicators. The strategic intent of Sustainable development is; Achieve profitable growth by offering products and services which capitalise on emerging business opportunities; Realise cost savings through energy efficiencies and other sustainable business practices; Enhance BAW's reputation by taking a leading role in these; Engage stakeholders to guide appropriately BAW's value propositions; Approach management and reporting in an integrated manner that entrenches accountability for economic, environmental and social activities; Aspirational 12% improvement in non-renewable energy and GHG emissions (scope 1 and 2) efficiencies by 14FYE (2009 baseline); MARSO (Measure, Avoid, Reduce, Switch, Offset) to minimise carbon and wider environmental footprints; Provide solutions that create value for BAW's customers by assisting them to achieve their sustainable development objectives, including addressing climate change.
- ii. Climate change influence on business strategy: BAW's strategy has been influenced by these major aspects of climate change:
- Reputation and responsibility: BAW is committed to conducting its activities in an environmentally responsible manner and being a responsible corporate citizen. Integration of climate change into the business strategy comes from the need to act responsibly and to conduct business in a transparent and ethical manner. BAW strives to manage the impacts (risks and opportunities) to ensure that the group's reputation as a responsible corporate citizen remains untarnished.
 - Increased operational costs: In South Africa, the proposed introduction of a carbon tax coupled with the increase in electricity and fuel prices has driven the need to improve energy efficiency, resulting in reduced GHG emissions against a business as usual scenario. In an effort to reduce the impact of a carbon tax, BAW has set an aspirational target to drive emission efficiency improvements.
 - Changes in customer expectations: The group's customers may require environmentally sound products that assist them in achieving their emission reduction targets. This has driven BAW and its leading global principals to develop new technologies, adapt existing technologies and offer new products and services that address customer demands.
 - Opportunities: Climate change presents a number of opportunities, also influencing BAW's strategy. These include the development of new products and opportunities to differentiate the group's offering in light of the need to reduce emissions.
- iii. Short term strategy (<5yrs) impact: Climate change has influenced short term strategy through the introduction of aspirational emissions efficiency target which aims to improve emissions intensity by 12% by 14FYE (2009 baseline). The group has adopted a MARSO methodology to manage emissions. Initiatives in this regard include enhanced climate change data collection, reporting and communication processes and systems. Also important are internal environmental awareness and communication initiatives, the implementation of energy efficiency initiatives which positively impact the group's emissions, new buildings incorporating environmentally beneficial aspects, recycling (including rebuild & remanufacture), waste disposal, and an enhanced Employee Value Model incorporating environmental stewardship and responsible corporate citizenship.
- iv. Long term strategy (>5yrs) impact: BAW has placed long term strategic focus on offering products and solutions that assist customers in achieving their environmental objectives, including GHG emissions. These products will also assist customers in terms of operational resilience and long term sustainability. Climate change has influenced BAW's long term strategy by increasing focus on development of more environmentally friendly products and service offerings and internal environmental stewardship initiatives. BAW is focused on product development to retain existing markets and to enter new markets. Embedded in the existing, short term and long term strategy is continued association with leading international brands and principals and diversification in terms of geographies and products. These aspects of BAW's strategy allow the group to mitigate many of the risks associated with climate change.
- v. Strategic advantage over competitors: BAW has reduced its operational costs through implementation of emissions efficiency improvement projects in pursuit of its aspirational target. Not only have the implemented projects improved emissions efficiency, but they have also positively impacted on electricity and fuel consumption and related operational costs, and have improved organisational resilience. BAW has Caterpillar rebuild and remanufacture facilities which extend the lifespan of machines and equipment. Less energy is used to remanufacture than to produce a completely new product. Integrating climate change into the strategy has provided BAW with a competitive advantage in terms of product offering. BAW engages with world-class principals that are managing the risks and opportunities presented by climate change continuously.
- vi. Substantial business decisions: Investment (>R6m) was made in emission efficiency improvement projects within FY2014 in the group. BAW has invested in

making new dealerships and buildings 'green' and energy efficient. BAW invested R250m (South Africa) and USD11m (Russia) to date in rebuild and remanufacture facilities. This investment was driven by the need to extend the life of equipment and reduce the number of components and machinery disposed of on an annual basis. This has a positive impact on emissions in the supply chain as less energy is used in the remanufacture process than in the production of a new machine or component.

CC2.2b

Please explain why climate change is not integrated into your business strategy

CC2.2c

Does your company use an internal price of carbon?

No, and we currently don't anticipate doing so in the next 2 years

CC2.2d

Please provide details and examples of how your company uses an internal price of carbon

CC2.3

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

Direct engagement with policy makers
Trade associations

CC2.3a

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Energy efficiency	Support	<p>How BAW is engaging: BAW is concerned about climate change and appreciates the causal link between greenhouse gas emissions and global warming. BAW believes that improving energy efficiency, particularly non-renewable fossil fuels, benefits climate change and related policies. Accordingly, BAW was an early signatory to South Africa's Energy Efficiency Accord (EEA) with the South African Department of Minerals and Energy, and subsequently a signatory of the South African National Business Initiative's (NBI) Energy Efficiency Leadership Network's (EELN) Energy Efficiency Pledge. Other pledge signatories include Business Unity South Africa (BUSA) and the Department of Energy. The company is a member of the EELN and has representation on the NBI's EELN Advisory Committee. Name of Legislation: Various energy efficiency related initiatives and legislation that include the National Energy Efficiency Strategy, Mandatory energy management reporting, and energy efficiency tax incentives amongst others. Geographies applicable: Predominately South Africa, but also in other geographies where BAW operates.</p>	<p>Through signing the EELN Pledge, BAW commits to: - Developing a Road map/ plan for improving energy efficiency in its operations, supported by the implementation of an appropriate energy management system. - Developing internal energy efficiency targets that are appropriate to its operations and activities and which respond proactively to, and are aligned with appropriate Government policies and strategies. - Reporting appropriately on efforts to promote energy efficiency and progress made towards set energy improvement targets in its operations within the parameters of national legislation. - Working with stakeholders on energy efficiency related issues to build capacity and develop the required skills to implement energy efficiency programmes and drive the required behavioural changes. These activities are preparing BAW for compliance with proposed legislation. The NBI consists of companies that provide leadership and peer support in achieving energy efficiencies and reducing emissions. The association also provides a platform for shared learning and best practice for example through its Thought Leadership Series workshops.</p>
Carbon tax	Support with minor exceptions	<p>How BAW is engaging: BAW understands that South Africa is planning the implementation of a carbon tax in 2016. BAW is supportive of the drive to reduce emissions. However, BAW is equally mindful of the risk to growth and jobs posed by the introduction of a carbon price and BAW seeks to engage constructively with government on this issue through the BUSA Climate Change committee. Similarly BAW also engages through this forum on the alignment of the various proposed carbon management mechanism, namely the Carbon Tax, Carbon Budgets and the Desired Emission Reduction Outcomes. BAW contributes to this committee that presents the consolidated views of business to government. Name of Legislation: Carbon tax Geographies applicable: South Africa</p>	<p>The introduction of a carbon tax in South Africa is anticipated in April 2016. As mentioned, BAW is supportive of the need to drive emission reductions in South Africa, but believes that the design of the carbon tax needs to be carefully considered to avoid adverse impacts on competitiveness, growth and jobs. Consideration must be given to the alignment between the proposed Carbon Tax and other carbon management strategies eg. Carbon Budgets and the Desired Emission Reduction Outcomes</p>

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

Yes

CC2.3c

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

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
Road Freight Association (RFA) (Board member)	Consistent	The Road Freight Association (RFA) is a facilitating body which influences the state of the industry, rates, upkeep of the road infrastructure, road safety, freight security, driver interests, cross-border transport, development funding for emerging operators, education, health, the fuel price, law enforcement, labour relations and many other issues related to road freight transport. One of the core values is sustainability and sustainable transport practices of which climate change forms a component thereof. The RFA acknowledges the need to reduce emissions and curb climate change, However, it is also mindful of the fact that the transportation industry in South Africa would be negatively impacted by the introduction of a carbon tax and cannot afford any additional taxes.	BAW is represented on the board as well as in the carbon tax committee of this association. BAW's engagement at these levels includes input on sustainable transport and carbon reduction initiatives for the industry to consider. BAW is supportive of the position adopted by the RFA and contributes by engaging in discussions, commentary and debates on carbon reduction initiatives and sustainable transport.
Southern African Vehicle Rental and Leasing Association (SAVRALA)	Consistent	Southern African Vehicle Rental and Leasing Association (SAVRALA) is the representative voice of Southern Africa's vehicle rental, leasing and fleet management industries. SAVRALA has a combined membership base of over 15 of South Africa's top rental companies. Sustainability is a strategic imperative for the industry but it relies on its members, many of whom are already part of major corporate organisations, to manage their carbon reduction programs and meet any legislative requirements. SAVRALA facilitates the development of appropriate solutions, including giving	BAW is represented on the board of SAVRALA through Avis Rent a Car. Avis Rent a Car is a longstanding member of SAVRALA and provides input on all key issues facing the industry, including giving guidance on policy development. An Avis Rent a Car Executive currently holds the position of SAVRALA President.

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
		guidance on climate change policy development.	
Tourism Business Council South Africa (TBCSA)	Consistent	The TBCSA represents South African tourism business interests and seeks to ensure that the country offers both its domestic and international visitors a world class experience. Sustainable tourism is a key strategic focus area.	BAW is represented on the board of TBCSA through Avis Rent a Car. Avis Rent a Car is a member of the TBCSA Board which provides input on all key issues facing the tourism industry, including giving guidance on policy development, which would cover sustainable tourism.

CC2.3d

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

CC2.3e

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

CC2.3f

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

CC2.3g

Please provide details of the other engagement activities that you undertake

CC2.3h

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

BAW ensures that all engagements are consistent with its overall climate change strategy through ensuring that all relevant employees within the group understand and are aligned with BAW's position on climate change. BAW representatives on the various committees are appropriately mandated prior to engagement to ensure consistency. Internal meetings with these representatives are held on a regular basis (including individual discussions, monthly sustainability champion meetings, executive and management meetings). These meetings provide an opportunity for the representatives to provide feedback and to be informed on any changes to the group's position (if new regulation is released etc.). In this way, the representatives participate in structured feedback processes, are kept informed of the group's approach, and are able to communicate the group's position and strategy on climate change. Also, the BAW Climate Change Policy has been widely distributed across the group and is publicly available. 'Protect the environment' is an element of the BAW Code of Ethics and in FY2015, Sustainability has been included as a fifth value in the BAW Worldwide Code of Conduct. These codes are widely communicated and all employees are expected to uphold them.

CC2.3i

Please explain why you do not engage with policy makers

CC2.4

Would your organization's board of directors support an international agreement between governments on climate change, which seeks to limit global temperature rise to under two degree Celsius from pre-industrial levels in line with IPCC scenarios such as RCP2.6?

No opinion

CC2.4a

Please describe your board's position on what an effective agreement would mean for your organization and activities that you are undertaking to help deliver this agreement at the 2015 United Nations Climate Change Conference in Paris (COP 21)

Further Information

Page: CC3. Targets and Initiatives

CC3.1

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

Intensity target

CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
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CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
Int1	Scope 1+2	100%	12%	metric tonnes CO2e per unit revenue	2009	4.6	2014	It is an aspirational target set for the end of the 2014 financial year and based on a "business as usual" scenario which tracks turnover as a proxy for business activity. The intention was to focus attention and drive commitment to improving energy and emission efficiency

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
								with concomitant benefits of positively contributing to climate change & realising cost savings.

CC3.1c

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

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	Increase	28			If the target was achieved at the end of the target period (2014FYE), targeted absolute emissions would have increased by 28% over the 2009 baseline absolute emissions. BAW's actual absolute emissions increased by 41.5% at the end of the 2014FYE target period over the 2009 baseline, while activity (using revenue as a proxy) increased by 47% over the same period. Despite not achieving the 14FYE group aspirational target, an approximate saving of 77.5 ktCO ₂ e has been achieved over the target period (2009-2014) against a 'business as usual' scenario, due in part to BAW's efficiency targets. Scope 3 emissions will increase with increased business activity. Emissions relating to business travel will continue to receive focus and should also increase at a lesser rate than 'business as usual.' No target has been set for Scope 3 emissions.

CC3.1d

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
Int1	100%	33%	The majority of our operations have performed ahead of our aspirational group target of a 12% efficiency improvement for non-renewable energy and greenhouse gas emissions (scope 1 and 2) set for the 2014FYE off a 2009 baseline. However, our overall group target was not achieved due mainly to a number of investments made in logistics road transport business, which have higher energy and emission intensities compared to our other businesses. Although we did not achieve our target, it played a significant role in focusing attention and prompting relevant initiatives which benefitted the group over the past five years, with cumulative savings of some 77 566 tCO ₂ e against a business as usual scenario, and will continue to do so in the future. Initiatives prompted by our aspirational target included: measurements, avoidance, reduction, switching to appropriate alternate sources and technologies where feasible, and offsetting emissions from commercial activities where appropriate.

CC3.1e

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

CC3.2

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

Yes

CC3.2a

Please provide details of how the use of your goods and/or services directly enable GHG emissions to be avoided by a third party

- i. BAW acquired a 25% shareholding in re- which is a waste management company in FY2013. re- focuses on reducing, reusing and recycling waste with the objective of reducing GHG emissions associated with waste disposal. By offering the services of re- to its customers, BAW is assisting customers reduce their GHG emissions.
 - ii. re- provides customers with an estimate of emissions avoided through the use of their services. Generally, recycling of 1 kg of cardboard results in the avoidance of 0.0032 tCO₂e, including landfill avoidance. Similarly, recycling plastic bags results in a reduction of 0.06 tCO₂e per kg, including landfill avoidance.
 - iii. The emission reductions are quantified by calculating the emissions avoided as a result of reuse or recycling of waste and landfill avoidance. For example Barloworld Corporate Office, which utilises the services of re- for its waste management and disposal, have saved some 58 tCO₂e over the 2014 financial period through waste recycling and landfill avoidance.
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- i. In BAW Equipment divisions, the Cat ® 988H Performance Plus Wheel Loader update exemplifies energy efficiency. The 988H Performance Plus with the Performance Series Bucket offers the benefit of up to a 10% increase in productivity. The Positive Flow Control hydraulics has demonstrated fuel savings of up to 5%. Factoring in the combination of productivity and fuel savings, improvements of up to 10% can be realised. At a minimal sacrifice to productivity (5 – 10% loss), customers may realise an additional 15 – 20% in fuel savings with the Fuel Management System (FMS).
 - ii. 5-20% savings in fuel, consequently reducing emissions
 - iii. Emissions savings will be dependent on distance travelled/ run time and the application of the equipment.
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- i. Barloworld Logistics has expanded its 'Green Trailer' fleet that is more aerodynamically designed, reducing drag and improving fuel efficiency. In the FY2014, an additional 6 such vehicles were included in this fleet.
 - ii. The estimated annualised emissions savings is vehicles is 20 tCO₂e per vehicle.
 - iii. Emissions savings calculated on the fuel savings per kilometer multiplied by average annual distance travelled per vehicle
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- i. Barloworld Power offers high efficiency technology (up to 44%) gas generators. The gas generator offerings can utilise natural gas, biogas (landfill and sewerage) or coal bed methane.
 - ii. The estimated annualised emissions savings is 0.2tCO₂e per MWh based on natural gas. A commercial building using 1 MW x 12 hours a day x 365 days a year = 876 tCO₂e savings per annum
 - iii. Emissions savings calculated on the fuel savings per MWh generated versus traditional diesel generators.

CC3.3

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

Yes

CC3.3a

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

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	1	77
To be implemented*		
Implementation commenced*		
Implemented*	40	1565
Not to be implemented		

CC3.3b

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

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Building services	Replaced 200W with 80W induction lighting to reduce energy consumption at the following eight Barloworld Equipment sites: Boksburg BRC, EMPR Middelburg, Bloemfontein, Polokwane, Port	55	Scope 2	Voluntary	63681	246840	4-10 years	3-5 years	Estimated tCO2e savings based on Barloworld's South African GHG conversion factor for electricity and the average

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	Elizabeth, East London, Durban and EMPR Germiston								electricity price. Estimated monetary savings is based on R1.20kWh.
Energy efficiency: Building services	Installation of two heat pumps Avis' Gauteng Regional office building shower geysers. Electricity saving of: 43 109 kWh annually. Input power saving: 25.6kW. Overall saving of 71% on energy, cost and CO2 emissions based on old technology consumption.	43.10	Scope 2	Voluntary	51728	102600	1-3 years	6-10 years	Estimated tCO2e savings based on Barloworld's South African GHG conversion factor for electricity and the average electricity price. Estimated monetary savings is based on R1.20kWh.
Energy efficiency: Processes	Heat pump installation to reduce energy consumption implemented at four Barloworld Equipment sites: Boksburg, Germiston, Port Elizabeth and East London.	62	Scope 2	Voluntary	73639	149648	1-3 years	3-5 years	Estimated tCO2e savings based on Barloworld's South African GHG conversion factor for electricity and the average electricity price. Estimated monetary savings is based on R1.20kWh.
Low carbon energy	PV solar signage installation, ensuring that Barloworld	249	Scope 2	Voluntary	10985	106165	4-10 years	6-10 years	Estimated tCO2e savings based on

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
installation	Equipment signage uses solar energy to light up at night and not municipal/ grid energy. This initiative has been implemented at the following seven Barloworld Equipment sites: Boksburg Power, Middelburg, Germiston, Nelspruit, Pretoria, Polokwane and Bloemfontein								Barloworld's South African GHG conversion factor for electricity and the average electricity price. Estimated monetary savings is based on R1.20kWh.
Transportation: fleet	In 2009, Logistics' collaborated with the Council for Scientific and Industrial Research (CSIR) in South Africa and others in designing a more energy efficient and ergonomic vehicle that can carry a higher payload and be streamlined enough in its design to reduce fuel consumption and ultimately emissions. The rig travelled 100 000km in the six-month test period, and saved on average between 7% -10% in fuel compared to the rest of the fleet travelling the same route, with the same weather conditions and same payload. The total wind-drag reduction from the Green Trailer conversion also exceeded expectations, at up to	13.77	Scope 1 Scope 3	Voluntary					

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	43%. The other major benefit from the significant reduction in fuel use is lower carbon emissions. The fuel saving amounted to a reduction of a maximum of 13.77 tCO2e emissions during the test period. Four similar aerodynamic trailers have been included in the logistics' fleet. The efficiency data for these trailers are not available to date but expectation is that these will produce similar savings than those of the 'green trailers'. Included within the reporting period as the emissions savings continue to date.								
Energy efficiency: Building services	Pilot study of motion sensors for lighting implemented at Automotive Head Office. Pending the results of the pilot study, these will be rolled out to the rest of the building. The projected savings is based on the pilot study is estimated at 7 tCO2e per annum. If this initiative is rolled out to the rest of the building, this would realise additional emissions savings.	7	Scope 2	Voluntary	8820	28657	1-3 years	6-10 years	Estimated tCO2e savings based on Barloworld's South African GHG conversion factor for electricity and the average electricity price. Estimated monetary savings is based on R1.20kWh
Energy	Energy efficient T5 Lighting and	20	Scope	Voluntary	23491	110005	4-10	6-10 years	Estimated tCO2e

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
efficiency: Building services	motion sensors implemented in Avis RAC Croydon.		2				years		savings based on Barloworld's South African GHG conversion factor for electricity and the average electricity price. Estimated monetary savings is based on R1.20kWh
Energy efficiency: Building services	Energy Efficient HVAC / split unit systems implemented within four Automotive sites: Avis RAC Bruma, Barons Belville, Avis Head Office and Avis Croydon.	542	Scope 2	Voluntary	862741	3639939	4-10 years	6-10 years	Estimated tCO2e savings based on Barloworld's South African GHG conversion factor for electricity and the average electricity price. Estimated monetary savings is based on R1.20kWh
Energy efficiency: Building services	Within Barloworld Logistics, the following initiatives have been implemented at FM&S Head Office in Isando: - replacement of old outdated lighting technology (691 fittings) with new technology (equate to 669 fittings) - replacement of 1449	226	Scope 2	Voluntary	261901	231521	<1 year	3-5 years	Estimated tCO2e savings based on Barloworld's South African GHG conversion factor for electricity and the average electricity price.

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	lamps (tubes) with 1201 efficient lamps (tubes). The above initiatives enabled energy and consequently emission savings while also reducing costs. The above implementations have not impacted LUX levels.								Estimated monetary savings is based on R1.20kWh
Energy efficiency: Building services	Energy efficient lighting, motion sensors and building management system implemented with the following Automotive sites: Barons Belville, Barons Bruma, Motor Retail Head Office, Audi Gabarone and Avis Croydon	318	Scope 2	Voluntary	469212	888197	1-3 years	6-10 years	Estimated tCO2e savings based on Barloworld's South African GHG conversion factor for electricity and the average electricity price. Estimated monetary savings is based on R1.20kWh
Energy efficiency: Building services	Lighting retrofit initiative implemented at Logistics' SCM Germiston Depot.	24	Scope 2	Voluntary	28306	43496	1-3 years	3-5 years	Estimated tCO2e savings based on Barloworld's South African GHG conversion factor for electricity and the average electricity price. Estimated monetary savings is based on R1.20kWh

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Building services	Hydroboil installation, which is generally more energy efficient than an energy-intensive urn. This was implemented at the following Equipment sites: Pretoria and Wolmaransstad	5	Scope 2	Voluntary	1000	9906	4-10 years	6-10 years	Estimated tCO2e savings based on Barloworld's South African GHG conversion factor for electricity and the average electricity price. Estimated monetary savings is based on R1.20kWh

CC3.3c

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

Method	Comment
Compliance with regulatory requirements/standards	Compliance drives investment in emission reduction activities. BAW ensures compliance with regulatory requirements/standards and has established processes in support of these. BAW has introduced an aspirational target to improve emissions efficiency and is actively implementing emission reduction projects to reduce the impact of a carbon price (current and in the future) and related indirect impacts on tariff pricing. BAW was an early signatory to South Africa's Energy Efficiency Accord (EEA) with the South African Department of Minerals and Energy, and subsequently a signatory of the South African National Business Initiative's (NBI) Energy Efficiency Leadership Network's (EELN) Energy Efficiency Pledge.

Method	Comment
	The company also participates in Business Unity South Africa (BUSA)'s Climate Change committee, BUSA's Carbon Tax Task Team and has representation on the NBI's EELN Advisory Committee both of which assist to keep the company informed of leading practice, policies and regulatory changes.
Dedicated budget for energy efficiency	Costs of energy efficiency initiatives are not at this stage generally ring-fenced but incorporated into standard budgets and the on-going cost base of BAW divisions. However, BAW has implemented and is considering implementing a number of energy efficiency projects. In FY2014, BAW spent some R6m on energy efficiency projects.
Dedicated budget for low carbon product R&D	BAW's divisions and principals are engaged in the development of new products and offerings that reduce emissions.
Dedicated budget for other emissions reduction activities	Costs of emission reduction activities are not at this stage generally ring-fenced but incorporated into standard budgets and on-going cost base of BAW divisions. Currently BAW uses the MARSO methodology: Measure, Avoid, Reduce, Switch and, finally, Offset. Dedicated budgets for offsetting, if and when appropriate, are likely to be a consideration. Most divisions are within the MAR processes and are investigating the Switch and Offset options. BAW has implemented a number of emission reduction projects during FY2014. The costs of such projects were some R6m over the FY2014. In addition, the costs associated with the purchase of carbon offsets were some R0.5m in FY2014.
Employee engagement	Internal and external communication strategies have been developed. Employee engagement is used as a means to drive behaviour change that will result in greater awareness and energy savings. Specific employees are appointed as sustainability champions in order to communicate and liaise at division level, monitor, measure and report usage/emissions. Communication on initiatives and progress, as well as pertinent information is through management meetings, performance ownership meetings, 'green' community of practice meetings, publications, intranet sites, screen savers, posters, exhibitions and newsletters. Communication initiatives share information on energy consumption/ emissions/ costs by branch or division and disseminate information on best practice. A key aspect of BAW's Employee Value Model is environmental stewardship. BAW is committed to training and upskilling. BAW has a human resources practice which is constantly engaged in ensuring that it manages, retains and recruits required skills and key talent. Sustainability is a module on the BAW Leadership Development Programme (LDP) and the BAW Executive Development Programme (EDP), both of which are attended by prospective leaders of the organisation. 'Protect the environment' is included in the Barloworld Code of Ethics and subsequent to the reporting period, Sustainability has been added as a fifth value in the group's Worldwide Code of Conduct. These codes are widely communicated and all employees are expected to uphold them.
Financial optimization calculations	Incorporated into feasibility studies and capital vote applications. Financial optimisation drives investment in emission reduction projects as it considers the capital cost of projects against the energy cost savings achieved over the project life. All new property developments incorporate sustainable "green building" principles which are based on optimal financial calculations. Operations have switched to more environmentally friendly methods with improved financial returns such as retrofitted lighting. As a Logistics division business offering, operational efficiency is linked to network optimisation which in turn results in increased revenue.
Internal price of carbon	The cost of carbon is used in the decision-making process for emission reduction activities. The proposed carbon tax in South Africa is considered when evaluating the feasibility of various emission reduction projects. The basic drivers to reduce energy consumption and carbon emissions include increasing energy costs and the introduction of carbon taxes.
Internal incentives/recognition	Group, division, team and individual aligned key performance indicators, scorecards and awards are used to drive investment

Method	Comment
programs	in improved energy efficiency and greenhouse gas emission reduction activities.
Other	BAW has set an aspirational target of 12% efficiency improvement in non-renewable energy and greenhouse gas emissions (scope 1 and 2) by 2014FYE off a 2009 baseline year. While the majority of our operations have performed ahead of our aspirational group target, the overall group target was not achieved due mainly to a number of investments made in our logistics road transportation business, which have higher energy and emissions intensities compared to our other businesses. Nonetheless, this target played a major role in focussing our efforts on and driving investments in energy efficiency with significant benefits for the organisation and the group is 4% better than its 2009 baseline intensity of 4.6 tCO ₂ e/R1 million revenue. Functional responsibilities are managed through a group-wide, integrated performance scorecard system which includes defined climate change related objectives.
Partnering with governments on technology development	SA government is involved in bringing about the 'green economy.' BAW contributes where possible to assist with the development of new technologies, including related policy development. For example, in 2009 Logistics operations initiated a project where they collaborated with the CSIR and other partners in designing a more energy efficient and ergonomic vehicle which can carry a higher payload and be streamlined enough in its design to reduce the fuel consumption and ultimately the emissions. Approximate reduction in fuel consumption is between 7%-10% per trip, Johannesburg to Durban.
Marginal abatement cost curve	BAW does consider the least cost option in terms of reducing emissions. However, it is not only about least cost, but also about operational requirements. Other factors, apart from cost, are considered in the business case when considering investment in emission reduction projects. While not being pursued or implemented yet, emissions trading could reduce the group's or group companies' overall cost of compliance with emission constraints by taking advantage of differences in marginal abatement costs across different emission sources. It could drive investment in emission reduction projects. This is dependent on the recovery of the carbon market and the success of new market mechanisms created.

CC3.3d

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

Further Information

Page: CC4. Communication

CC4.1

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	Status	Page/Section reference	Attach the document
In mainstream financial reports but have not used the CDSB Framework	Complete	Barloworld Integrated Report 2014: Pages 9, 11, 16, 17, 22, 30, 34, 35, 42, 60, 78, 80, 87, 88, 92, 93, 94, 95, 96, 97, 121, 139	https://www.cdp.net/sites/2015/29/1529/Climate Change 2015/Shared Documents/Attachments/CC4.1/Barloworld Integrated-report 2014.pdf
In voluntary communications	Complete	Not in public domain: JSE SRI profile	https://www.cdp.net/sites/2015/29/1529/Climate Change 2015/Shared Documents/Attachments/CC4.1/Barloworld's JSE SRI profile 2014.pdf
In voluntary communications	Complete	Extract from Website: Barloworld 2014 GRI responses - Refer indicators Strategy and Analysis (1.1 & 1.2) Governance (4.1-4.17), Society (SO1-SO10), Environment (EN1-EN30)	https://www.cdp.net/sites/2015/29/1529/Climate Change 2015/Shared Documents/Attachments/CC4.1/Barloworld GRI Index and responses 2014.pdf
In voluntary communications	Complete	Barloworld UNGC COP 2014	https://www.cdp.net/sites/2015/29/1529/Climate Change 2015/Shared Documents/Attachments/CC4.1/barloworld-ungc-cop-gri-aligned-december-2014.pdf
In voluntary communications	Complete	Business Day Earth publication, page 15	https://www.cdp.net/sites/2015/29/1529/Climate Change 2015/Shared Documents/Attachments/CC4.1/BD Earth 2014.pdf
In voluntary communications	Complete	Financial Mail - The Green Report 2014- Page 31	https://www.cdp.net/sites/2015/29/1529/Climate Change 2015/Shared Documents/Attachments/CC4.1/FM Green Report 31 October 2014 Page 31.pdf
In voluntary communications	Complete	Not in public domain: Briefing Barloworld - Page 6	https://www.cdp.net/sites/2015/29/1529/Climate Change 2015/Shared Documents/Attachments/CC4.1/Briefing Barloworld - Year-end results 2014-Page 6.pdf

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

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

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

CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Product labelling regulations and standards	Product labelling regulations and standards may be introduced by countries. If products supplied by BAW do not have the required labelling then it may give rise to litigation, damaged reputation or monetary or non-monetary sanctions. If BAW is unable	Reduced demand for goods/services	Up to 1 year	Direct	Very likely	Medium-high	Inherent risk value of below R400 million and residual risk value of below R40 million.	BAW represents globally leading brands and engages with world class principals. These principals ensure that all products manufactured comply with labelling standards and regulations. BAW is committed to ensuring that all products sold have the certification, labelling, product and service information required by	Costs associated with product labelling are not separately identifiable and are included in group's 'cost of sales' which was some R49 billion for FY2014.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>to supply products with the required labelling then this could result in reduced demand for goods and service. Three potential impacts resulting from this risk were identified: 1. Increased operational cost. 2. Reduced demand for goods/services. 3. Inability to do business. The most significant of these impacts was assessed as "Reduced demand for goods/services".</p>							<p>respective local laws. In principle, the information and labelling is the responsibility of the Original Equipment Manufacturers (OEMs). This information is conveyed to customers in handbooks, handover procedures and, where appropriate, displayed on the vehicle, plant or equipment. The group strives to ensure that all products have information and labelling as required by the respective local authority's health and safety laws as well as those laws that pertain to health and safety in the mining and other industries in which we operate. Every product sold into the European</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Union has to be certified under Conformité Européenne (European Conformity) standards. Information also includes vehicle, plant and equipment operating and maintenance procedures and safety protocol.	
Emission reporting obligations	Additional emissions reporting requirements introduced by legislation or required by customers may not be aligned with existing reporting requirements and frameworks or may exceed current disclosure. For example, the South African Department of Environmental	Reduced demand for goods/services	1 to 3 years	Direct	Likely	Medium-high	Inherent risk value of R325 million and residual risk value of R30 million.	The group has data collection and reporting processes in place. All reporting is aligned with relevant best practice methodologies and frameworks including the GRI guidelines and GHG reporting protocols. Alignment with these methodologies and frameworks significantly reduces the risk	These costs associated with reporting, engaging with principals and customers and responding to voluntary programmes are incorporated into the ongoing operational activities and cost base of the group. One example is the cost of assurance

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Affairs is considering the introduction of mandatory reporting of GHG emissions for companies that emit over 100 000 tonnes of CO2e per annum. Should BAW be unable to comply with these additional reporting obligations, it could result in litigation, damaged reputation or monetary or non-monetary sanctions. Failure to comply with reporting requirements may also result in reduced demand for goods and services. Three potential impacts were identified: 1. Increased</p>							<p>that BAW would not be able to comply with new emissions reporting obligations. Assurance is provided by the group's external auditors around the data collection processes, methodologies and reported emissions data. Participation in business organisations also allow BAW to identify changes in reporting protocols and to respond appropriately. Disclosure under voluntary programmes such as the CDP's Climate Change response, assist in ensuring that the group is prepared for mandatory reporting obligations. BAW also engages with world class</p>	<p>which was some R0.5m per for FY2014.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	operational cost 2. Reduced demand for goods / services 3. Inability to do business. The most significant of these impacts was assessed as "Reduced demand for goods/services".							principals and represents leading brands. These principals ensure that all reporting obligations are complied with and that customers are satisfied with the emissions reporting on products and services. BAW actively engages with customers to ensure that reporting requirements satisfy customers' needs and that customers' expectations are met.	
General environmental regulations, including planning	BAW identifies the predominate use of fossil-fuel based energy as a risk to its value chain, operations, products and solutions. Essentially all BAW customer	Reduced demand for goods/services	1 to 3 years	Direct	More likely than not	High	Inherent risk value of below R300 million with a residual risk value of below R70 million.	Minimise exposure through in-depth risk assessments and strategic responses. Ensure organisational resilience through aligned and integrated management activities and policies. These	In 2014, BAW spent some R6m on energy and emissions reduction initiatives, and some R1.09m was spent on association membership fees and

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>solutions are fossil fuel based, thus any change in the regulatory environment that impacts on the price, availability or levels of consumption of fossil fuels will impact pervasively on the group. Examples include the introduction of carbon pricing, caps on emission levels or the introduction of air pollution limits. These could potentially reduce the competitiveness of products and services and also increase the cost base. This would negatively affect BAW's competitive</p>							<p>include: - Implementation of non-renewable energy and greenhouse gas (scope 1 and 2) emissions efficiency improvement targets. - Association with global leading principals and brands, provision of products and solutions with reduced environmental footprint and which assists customers achieve their sustainable development objectives. This includes new technologies and renewable energy opportunities. For example: Barloworld Power offers high efficiency technology (up to 44%) gas generators. The gas generator</p>	<p>sponsorships including those to external environmental initiatives to public benefit. Other costs associated with managing this risk are incorporated in the operational cost base of the company and its principals. These costs are part of the relevant product and equipment offering available from principals and therefore included in the group's 'cost of sales' which was some R49 billion for FY2014. Prior to the reporting period, BAW invested R250m and USD11m to</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>position and sustainable value creation potential. Two potential impacts were identified: 1. Increased cost based. 2. Reduced demand for goods/services. The most significant of these impacts was assessed as "Reduced demand for goods/services".</p>							<p>offerings can utilise natural gas, biogas (landfill and sewerage) or coal bed methane. This investment assists customers in reducing their emissions. - Geographic and industry diversification. BAW operates across 24 countries and has a diverse range of customer offerings across six identified strategic growth segments. - Awareness, anticipation and appropriate action through participation in and representation on corporate/business groups and organisations that provide feedback on proposed legislation. - Remanufacturing and rebuilding activities, which is more energy</p>	<p>date, in rebuild and remanufacture facilities in South Africa and Russia, respectively which aims to extend the lifespan of machinery and equipment, thus minimising waste while reducing energy consumption.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								efficient than producing new equipment and components and reduces resource consumption.	
Air pollution limits	Customer offerings may become uncompetitive unless pollution limit specifications, product efficiency regulations and standards are anticipated and met by the group's product offerings across the multiple geographies in which BAW operates. It is important for BAW and its principals to consider these standards and regulations in order to ensure that customers are supplied with vehicles,	Reduced demand for goods/services	1 to 3 years	Direct	More likely than not	High	Inherent risk value of below R300 million and residual risk value of below R70 million.	Close relationships with world class principals ensures competitive advantage and ability to provide integrated customer offerings incorporating latest technology which reduce emissions and mitigate customers' emissions-related risks. This risk is managed by the development of new technologies and services in partnership with BAW's principals that reduce customers' emissions and meet required emission standards and regulations. An example is BAW's	BAW's globally leading principals invest in research and development to ensure product offerings incorporate latest technologies and improved efficiencies. These costs are included in product offerings available from principals and included in the group's 'cost of sales' which was some R49 billion for 2FY014.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>plant and equipment that are compliant. If BAW and its principals are unable to provide its customers with products and solutions that comply with standards and regulations, this could result in customers opting for competitor products, which would reduce demand for BAW's products and services. Three potential impacts were identified: 1. Increased operational cost. 2. Reduced demand for goods / services. 3. Inability to do business. The most significant of these impact</p>							<p>investment into its equipment remanufacture and rebuild facilities in Russia and South Africa, addressing potential life-cycle and waste management regulations as well as reduced energy and emissions and resource consumption. An additional example is Barloworld Power's offering of high efficiency technology (up to 44%) gas generators. The gas generator offerings can utilise natural gas, biogas (landfill and sewerage) or coal bed methane. Together with these solutions, Combined Heat and Power (CHP) technology can be incorporated to offer even higher energy efficiency, where the heat</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	was assessed as "Reduced demand for goods/services". Two risk drivers were identified: 1. Air pollution limits. 2. Product efficiency regulations and standards.							generated can be utilised further for heating or cooling requirements by incorporating heat exchangers or chillers into the overall solutions. This investment assists customers in reducing their emissions.	
Uncertainty surrounding new regulation	Possible or impending changes to the regulatory framework creates uncertainty in the business environment. This results in a cautious approach and the inability to firmly commit to business decisions already taken or business decisions to be taken on issues such as competitive products,	Inability to do business	1 to 3 years	Direct	Likely	Medium-high	Inherent risk value of below R200 million and residual risk value of below R100 million. Examples include a major customer delaying the purchase of a fleet, plant or equipment as a result of uncertainty surrounding future regulations.	Regulatory uncertainty may result in customer unwillingness to commit to the purchase of assets, plant and equipment. To mitigate this BAW is constantly innovating flexible product offerings eg. lease with purchase options, long-term leasing, etc. which better suit customers in an uncertain environment. BAW believes that customers' willingness to commit to long-	No additional costs associated with the mitigation of this risk. Investments made in anticipation of regulations include: Prior to the reporting period, BAW invested R250m and USD11m in rebuild and remanufacture facilities in South Africa and Russia, respectively which aims to

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>services and customer offerings, sectors in which to operate, business models and optimal locations. This cautious approach is adopted not only by BAW but by its principals and customers as well which could result in an delay in / inability of medium to long term decision making, eg. strategic direction, selection of product ranges, strategic partnerships, etc. Changes to regulatory frameworks impose additional administrative and cost</p>							<p>term partnerships is closely linked to their confidence in BAW's ability to identify and appropriately respond to regulatory changes. Thus BAW is engaged in formulating and monitoring regulation, has membership and participates in a number of forums which also monitor the legislative landscape and provide feedback on proposed legislation. The globally leading principals that BAW represent also monitor the regulatory landscape to be in a position to identify and respond to any proposed changes that may impact their business environment or that of their key</p>	<p>extend the lifespan of machinery and equipment, thus minimising waste and reducing energy consumption and emissions. BAW acquired a 25% shareholding in re- which is a waste management company, which will, amongst other internal benefits, assist BAW in being prepared for any new waste regulations and has potential renewable energy opportunities. re- also provides its customers monthly reports on</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>burdens. BAW, as a diversified business, is in the unique position of having to monitor progress with regulation on climate change across a number of industries and under many jurisdictions. The diversified nature and location of BAW's operations results in increased monitoring costs and administration requirements. Three potential impacts were identified: 1. Increased operational cost. 2. Reduced demand for goods / services. 3.</p>							<p>stakeholders. Monitoring the development of regulation enables BAW to be prepared for its implementation. For example, BAW's investment into its equipment remanufacture and rebuild facilities in Russia and South Africa, addressing potential life-cycle and waste management regulations as well as reduced emissions and resource consumption. Also, Barloworld Power's offering of high efficiency technology (up to 44%) gas generators which can utilise natural gas, biogas (landfill and sewerage) or coal bed methane. These solutions assist customers reduce their</p>	<p>emissions saved through recycling and landfill avoidance.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Inability to do business. The most significant of these impacts was assessed as "Inability to do business".							emissions.	
Lack of regulation	The lack of regulation in certain geographies in which BAW operates may permit the purchase and use of older and cheaper technologies which produce more emissions than modern alternatives. This could result in BAW's product offerings being uncompetitively priced in these regions. Affected countries include: - Certain countries within Africa: BAW's	Reduced demand for goods/services	>6 years	Direct	Likely	Medium	Inherent risk value of below R100 million and a residual risk value of below R55 million.	BAW has a diversified range of products enabling the group to compete in markets where there is no country-wide regulation or regulation is still developing. Close relationships with world class principals ensures competitive advantage and ability to provide a wide-range of integrated customer offerings. Furthermore, many of BAW's customers are major global organisations that consider long-term costs and	No additional costs associated with the mitigation of this risk. Activities such as geographic and industry diversification and engagement with world class principals are part of the group's overall risk management approach. There are also no additional costs associated with providing a wide range of products. These costs are part of the

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>operations in Africa (excluding South Africa) generate 4.3% of group emissions and 14.6% of the group revenue.</p> <p>- Russia, Middle East and Asia: BAW's operations in Russia, Middle East and Asia generate 2.2% of group emissions and 7.5% of group revenue.</p> <p>Some 22% of BAW's revenue is generated from such countries indicating the potential extent of the risk.</p>							<p>sustainability in their purchasing decisions. In many instances, this results in customers selecting higher priced plant and equipment with better efficiencies. This risk is further minimised by geographical diversification across 24 countries with some 22% of group revenue generated in countries that do not yet have specific and country-wide climate change regulation.</p>	<p>relevant product and equipment offering available from principals and therefore included in the group's 'cost of sales' which was some R49 billion for 2014FY.</p>
Renewable energy regulation	Regulations could introduce specified thresholds for renewables within BAW's fuel mix. Most,	Increased capital cost	3 to 6 years	Direct	About as likely as not	Medium	Inherent risk value of below R70 million and residual risk value of below R35	In 2009, the group implemented an aspirational target of a 12% efficiency improvement in non-renewable energy by 2014	The investment costs associated with the implementation of energy

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>if not all of BAW's operations, including products and facilities are fossil fuel based. The introduction of thresholds for renewables will require additional investment by BAW and its supply chain. Capital investment requirement in renewables is significant and, in many cases, more expensive than alternative sources of energy such as sourcing electricity from the grid. The installation of solar photovoltaic panels on roof space in certain operations in the group is</p>						million.	<p>from a baseline year of 2009. The group has invested into a number of energy reduction initiatives that would reduce the impact of renewable energy regulations. BAW is actively investigating the installation of solar energy at identified facilities within the group as an alternative to electricity from the national grid. In some countries, there are incentives for renewables which could assist BAW is building the business case for the installation of renewable energy. Note that BAW has adopted a MARSO (Measure, Avoid, Reduce, Switch, Offset) methodology to reducing</p>	<p>efficiency improvement projects was some R6m for FY2014. One BAW business unit has commenced implementation of Solar PV to power their signage boards at a cost of some R0.1m in FY2014 and saving some 249 tCO2e annually.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>more expensive than continuing to use electricity from the national grid. Currently, the payback periods for renewables are still long and the required capital investment could have a significant impact on BAW, its supply chain and its customers. Three potential impacts were identified: 1. Increased operational cost. 2. Increased capital cost. 3. Reduced demand for goods / services. The most significant of these impacts was assessed as "Increased capital cost".</p>							<p>emissions. Only once having measured, avoided and reduced emissions does BAW consider switching to alternative fuel sources. BAW has signed the Energy Efficiency Leadership Network (EELN) Pledge with the Department of Energy in South Africa and also participates in CDP's Climate Change disclosure project. One of BAW's principals, Caterpillar, has recently expanded its renewable energy product offerings.</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Carbon taxes	Globally there is a trend towards implementing carbon prices. The introduction of a carbon price in the countries in which BAW operates would negatively impact on operational costs. South Africa is planning on implementing a carbon tax in 2016. The carbon tax policy paper indicates a carbon tax on scope 1 emissions of R120 per tonne with an initial tax-free threshold of 60% and a 10% per annum increase on the per tonne price for 5 years. This means that most companies	Increased operational cost	Up to 1 year	Direct	Virtually certain	Low-medium	Inherent risk value of below R70 million and residual risk value of below R35 million.	The group is focused on improving emissions efficiency against a business as usual scenario as a method of minimizing the impact of a carbon tax. In 2009, the group implemented an aspirational target of a 12% efficiency improvement in non-renewable energy and GHG emissions (scope 1 and 2) by 2014 from a baseline year of 2009. The group has invested into a number of energy, and consequently emission reduction, initiatives and has embarked on carbon offset programmes. Measurement and verification is essential to understanding and	The investment costs associated with the implementation of energy and emissions efficiency improvement projects exceeded R6m for the reporting period. Costs relating to group's carbon offset programme were R0.5m and cost incurred for assurance services for non-financial indicators (including energy and emissions) was some R0.5m, both in FY2014.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>will only pay for 40% of their emissions initially. This tax free threshold will be reduced over time. Not only will BAW be paying directly for their carbon emissions through the carbon tax, there will also be indirect cost implications through increased prices of electricity and fossil fuels as well as 'pass-through' costs from the supply chain. Four potential impacts were identified: 1. Increased operational cost. 2. Increased capital cost. 3. Reduced demand for goods /</p>							<p>managing the impact of a carbon tax. For this reason, BAW continues to have its scope 1 and 2 GHG emissions assured by their group external auditors. BAW has signed the Energy Efficiency Leadership Network (EELN) Pledge with the Department of Energy in South Africa and also participates in CDP's Climate Change disclosure project.</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	services. 4. Inability to do business. The most significant of these impacts was assessed as "Increased operational cost".								
Voluntary agreements	Not participating in voluntary agreements could result in reputational damage and lost opportunities for BAW.	Reduced demand for goods/services	Up to 1 year	Direct	Virtually certain	Low-medium	Inherent risk value of below R70 million and residual risk value of below R10 million.	Awareness, anticipation and appropriate action through participation in and representation on corporate/business groups and organisations that provide feedback on voluntary agreements. Ongoing stakeholder engagement initiatives inform BAW participation and response. BAW actively engages with customers and other stakeholders to understand their expectations and requirements in	These costs are incorporated into BAW's ongoing reporting and disclosure costs as well as its operational activities and cost base. In FY2014, the cost incurred for assurance services for non-financial indicators (including energy and emissions) was some R0.5m.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>terms of reporting. BAW strives to meet these expectations and report in a transparent and accurate manner. This accuracy and transparency is upheld by the process and systems that the group has in place to monitor and report on GHG emissions. BAW continues to have its scope 1 and 2 GHG emissions assured by the group external auditors. BAW has signed the Energy Efficiency Leadership Network (EELN) Pledge with the Department of Energy in South Africa and also participates in CDP's Climate Change and Water disclosure projects.</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
International agreements	Under the second commitment period of the Kyoto Protocol a number of countries made commitments to reduce emissions. Examples include: - South Africa's voluntary commitment to a significant emissions reduction target of 34% by 2020 and 42% by 2025, dependent on technical and financial assistance from developed economies. It is believed that the greater part of responsibility for achieving this target will be passed on to the private sector. With many of its	Increased operational cost	1 to 3 years	Direct	Likely	Low-medium	Inherent risk value of below R50 million and Residual risk value of below R30 million.	The group is focused on improving emissions efficiency against a business as usual scenario as a method of minimizing the impact of the carbon taxes and penalties that could arise from these global agreements. In 2009, the group implemented an aspirational target of a 12% efficiency improvement in non-renewable energy and GHG emissions (scope 1 and 2) by 2014FYE off a 2009 baseline. The group has invested into a number of energy, and consequently emission reduction, initiatives and has embarked on carbon offset programmes.	The investment costs associated with the implementation of energy and emissions efficiency improvement projects exceeded R6m in the reporting period. Costs relating to group's carbon offset programme were R0.5m and costs incurred for assurance services for non-financial indicators (including energy and emissions) was some R0.5m, both in FY2014. Prior to the reporting period, BAW invested R250m and USD11m to

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>operations in RSA, this target could have a significant impact on BAW. It is also possible that South Africa along with other developing countries will take on mandatory reduction targets in the new global agreement on climate change which is anticipated to come into effect in 2020 and will replace the Kyoto Protocol. These mandatory targets will affect business and could impact BAW's operations and cost of doing business. - The European Union has a target to reduce GHG</p>							<p>Measurement and verification is essential to monitoring progress against set targets which are introduced as a result of these agreements. For this reason BAW continues to have its scope 1 and 2 GHG emissions verified by their group external auditors. Typically targets under these international agreements are country-specific and therefore geographic diversification assists in mitigating the risk in this regard. BAW has signed the Energy Efficiency Leadership Network (EELN) Pledge with the Department of Energy in South Africa and also participates in</p>	<p>date, in rebuild and remanufacture facilities in South Africa and Russia, respectively which aims to extend the lifespan of machinery and equipment, reducing energy consumption and also minimising waste.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>emissions by 20% by 2020 off 1990 levels or a quantified emission limitation or reduction objective of 80%. Climate change and emission reduction legislation is already in place in a number of EU member states such as the UK. These commitments are pushed down onto businesses that operate within these respective countries. Commitments made by countries under these international agreements are typically pushed down onto business in the form of carbon taxes or</p>							<p>CDP's Climate Change disclosure project. Remanufacturing and rebuilding activities, which is more energy efficient than producing new Caterpillar equipment and components and reduces resource consumption are in place in Barloworld Equipment Russia and South Africa.</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	penalties. Both of which can negatively affect the operational costs of BAW. Three potential impacts were identified: 1. Increased operational cost. 2. Reduced demand for goods and services. 3. Reduced stock price. The most significant of these impact was assessed as "Increased operational cost".								
Fuel/energy taxes and regulations	The introduction of taxes or regulations governing fuel and energy consumption, could increase the operational cost base within BAW. Across the board, increases in	Increased operational cost	1 to 3 years	Direct	Likely	Low	Inherent risk value of below R25 million and residual risk value of below R15 million.	In 2009, the group implemented an aspirational target of a 12% efficiency improvement in non-renewable energy and GHG emissions (scope 1 and 2) by 2014FYE off a 2009 baseline. The group has	The investment costs associated with the implementation of energy efficiency improvement projects exceeded R6m in the reporting

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>taxes or other costs stemming from introduction of regulations will increase cost of products both up and down stream. This will, in turn, increase BAW's cost base and the price of products to customers which could make BAW's products uncompetitive. Two potential impacts were identified: 1. Increased operational cost. 2. Reduced demand for goods / services. The most significant of these impact was assessed as "Increased operational cost".</p>							<p>invested into a number of energy reduction initiatives. Measurement and verification is essential to understanding and managing the impact of any fuel and energy taxes implemented. For this reason BAW continues to have its fuel and energy consumption assured by their group external auditors. The group also has an Energy Efficiency policy in place. BAW's investment into its equipment remanufacture and rebuild facilities in Russia and South Africa, addressing potential life-cycle and waste management regulations as well as reduced emissions and resource consumption.</p>	<p>period. In the 2014FY, the cost incurred for assurance services for non-financial indicators (including energy) was estimated to be some R0.5m. Prior to the reporting period, BAW invested R250m and USD11m to date, in rebuild and remanufacture facilities in South Africa and Russia, respectively which aims to extend the lifespan of machinery and equipment, thus minimising waste.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other regulatory drivers	The following regulatory risk drivers may also impact aspects of Barloworld's supply chain, albeit to varying degrees: - Emission reporting obligations - General environmental regulations, including planning - Air pollution limits - Uncertainty surrounding new legislation - Renewable energy regulation - Carbon taxes - Voluntary agreements - International agreements - Fuel/energy taxes and regulations - Product efficiency regulations and standards - Cap and trade	Reduction/disruption in production capacity	3 to 6 years	Indirect (Supply chain)	More likely than not	Low-medium	Inherent risk value of below R35 million and residual risk value of below R5 million.	The likelihood and impact of these risk drivers are mitigated through the following: 1. BAW engages with world-class suppliers that are managing risks; 2. BAW has a diversified product offering, supply chain and manufacturing footprint and operates across different industries and operates in 24 countries. 3. BAW has insurance protection for losses incurred as a result of a supplier's inability to deliver after suffering an insured event. The likelihood of BAW's entire supply chain being impacted by any of the selected risk drivers simultaneously is extremely remote.	No additional costs associated with the mitigation of this risk. Activities such as geographic and industry diversification and engagement with world class principals are part of the group's overall risk management approach. There are also no additional costs associated with providing a wide range of products. These costs are part of the relevant product and equipment offering available from principals and therefore included in the

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>schemes</p> <p>Although the potential impact/s for each of these will vary, these can be categorised as follows: 1. Reduction / disruption in production capacity 2. Inability to do business The most significant of these impacts was assess as "Reduced / disruption in production capacity"</p>								<p>group's 'cost of sales' which was some R49 billion for FY2014. Significant insurance cover is provided at group level which extends to physical and consequential damages. The costs of this insurance was marginally below R33 million for the reporting period.</p>
Other regulatory drivers	<p>The following regulatory risk drivers may also impacts Barloworld's customers, albeit to varying degrees: - Emission reporting obligations - General environmental</p>	Reduced demand for goods/services	3 to 6 years	Indirect (Client)	More likely than not	Low-medium	<p>Inherent risk value of below R35 million and residual risk value of below R5 million.</p>	<p>The likelihood and impact of these risk drivers are mitigated through BAW's diversified offering and operating across different industries and in 24 countries. The likelihood of BAW's customer base being</p>	<p>No additional costs associated with the mitigation of this risk. Activities such as geographic and industry diversification are part of the group's overall risk</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>regulations, including planning - Air pollution limits - Uncertainty surrounding new legislation - Renewable energy regulation - Carbon taxes - Voluntary agreements - International agreements - Product efficiency regulations and standards - Cap and trade schemes</p> <p>Although the potential impact for each of these will vary, these will ultimately result in "reduced demand for goods/services" due to BAW products not meeting local regulatory requirements.</p>							<p>impacted by any of the selected risk drivers simultaneously is extremely remote.</p>	<p>management approach. There are also no additional costs associated with providing a wide range of products. These costs are part of the relevant product and equipment offering available from principals and therefore included in the group's 'cost of sales' which was some R49 billion for FY2014.</p>

CC5.1b

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) temperature	<p>Changes in mean temperatures could affect working environment requiring additional expenditure on temperature control equipment, HVAC system and related energy consumption.</p> <p>Changes in mean temperatures could directly impact arable land patterns. This could result in reduced demand for goods and services from the agriculture sector which would impact on BAW. These changes could also lead to shifting settlement patterns as a result of farming</p>	Reduced demand for goods/services	>6 years	Direct	Likely	Medium-high	Inherent risk value of below R200 million and a residual risk value of below R55 million.	<p>BAW manages the risks of increased costs associated with the need for additional air-conditioning by installing and maintaining energy efficient and adequate HVAC units in its operations. Close relationships with leading world class principals and the geographical and industry diversification of the group reduces the impact of changing agricultural and settlement patterns as changes in mean temperature are typically</p>	<p>The costs of maintaining and facilitating these relationships are incorporated into the ongoing operational activities and cost base of the group. As an example, BAW has spent some R0.9m on improving efficiencies on HVAC units in the reporting year. This cost was incorporated into the ongoing operating costs of the group.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>moving outside of current production areas. The group will be negatively affected if these settlements or communities move outside of BAW's distribution areas. Five potential impacts were identified:</p> <ol style="list-style-type: none"> 1. Increased operational cost. 2. Increased capital cost. 3. Reduced demand for goods / services. 4. Inability to do business. 5. Wider social disadvantages. <p>The most significant of these impacts was assessed as "Reduced demand for goods/ services".</p>							<p>contained to specific region/s and impacts specific operations over different timescales. Close relationships with principals and customers enable BAW to understand the needs of customers and the risks to which they are currently or are likely to be exposed and to respond accordingly. The impact is further mitigated by on-going monitoring and a robust strategic planning process.</p>	
Change in precipitation extremes and droughts	Flooding could damage company infrastructure, stock and negatively affect operations	Reduced demand for goods/services	3 to 6 years	Direct	Likely	Medium	Inherent risk value of below R100 million and a residual risk value of below R30	BAW insures for any physical and consequential damages. All BAW facilities	Significant insurance cover is provided at group level which extends

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>including field servicing, operation of plant, equipment and vehicles. Drought would also negatively affect operations through water shortages, water price increases and operational inconvenience. Both flooding and droughts may require expenditure on infrastructure to overcome related difficulties. If severe, they may ultimately require changes to existing business model or relocation. Flooding and droughts could increase insurance premiums which would increase the cost base of the company. Floods and droughts can have a significant</p>						million.	<p>maintain business plans that incorporate emergency response actions and business continuity. The geographic diversification of BAW, the diversity of its products, its supply chains and manufacturing footprint, and its customers minimises this risk as it is typically confined to specific regions over a given timescale. BAW operates in 24 countries and across a number of industry segments which spreads the risk and reduces the impact associated with floods and droughts on the</p>	<p>to physical and consequential damages. The costs of this insurance was marginally below was R33 million for the reporting period. Costs associated with mitigation controls are not ring-fenced but incorporated into ongoing activities, revenue and cost bases of BAW companies.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>impact on the agricultural industry resulting in crop damage and shifting arable land areas. This could result in a reduction in demand for BAW's agricultural products. Four potential impacts were identified: 1. Increased operational cost. 2. Increased capital cost. 3. Reduced demand for goods / services. 4. Inability to do business. The most significant of these impacts was assessed as "Reduced demand for goods/ services".</p>							group.	
Uncertainty of physical risks	<p>Uncertainty surrounding physical risks creates uncertainty in the business environment. This</p>	Reduced demand for goods/services	3 to 6 years	Direct	Unlikely	Medium-high	Inherent risk value of below R75 million and a residual risk value of below R35 million.	BAW insures for any physical and consequential damages. All BAW facilities maintain	Significant insurance cover is provided at group level which extends to physical and

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>results in a cautious approach and the inability to firmly commit to business decisions already taken or business decisions to be taken on issues such as competitive products, services and customer offerings, sectors in which to operate, business models and optimal locations. This cautious approach is adopted not only by BAW but by its principals and customers as well which could result in a delay in / inability of medium to long term decision making, eg. strategic direction, selection of product ranges, strategic partnerships, etc.</p>							<p>business plans that incorporate emergency response actions and business continuity. Close relationships with leading world class principals and the diversified nature of the group also reduce the impact of the risk. Ongoing engagement with customers allows BAW to understand and address customer concerns in an uncertain environment. BAW offers flexible customer solutions that cater for uncertain business environments eg. rental and lease options versus outright</p>	<p>consequential damages. The costs of this insurance was marginally below R33 million for the reporting period. Costs associated with mitigation controls are not ring-fenced but incorporated into ongoing activities, revenue and cost bases of BAW companies.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>The uncertainty as to the timing and extent of extreme weather events could also result in increased insurance premiums. The diversified nature and location of BAW's operations requires that the group monitors physical risks and implements mitigation measures across a number of geographies, resulting in increased costs. Four potential impacts were identified: 1. Increased operational cost. 2. Increased capital cost. 3. Reduced capital availability. 4. Reduced demand for goods / services. The most significant of these impact was assessed as</p>							purchase of vehicle, plant or equipment.	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	"Reduced demand for goods/services".								
Change in mean (average) precipitation	Water is required for washing and cleaning of vehicles, plant and equipment. Changes in mean (average) precipitation levels could result in shortages and consequential price increases of water which could increase operational costs. Investment in water storage and treatment infrastructure to alleviate the impact of water shortages. Water shortages will impact on BAW's ability to clean vehicles, plant and equipment which may impact on customer satisfaction and result in reduced demand. Changes in mean	Increased operational cost	3 to 6 years	Direct	Likely	Low-medium	Inherent risk value of below R50 million and a residual risk value of below R15 million.	BAW insures for any physical and consequential damages. Apart from insuring for any physical damages resulting from changes in precipitation, the group continues to implement water reduction initiatives to curb the impact of water shortages and potential price increases. In FY2014, BAW recycled 16.7% of its municipal water withdrawals. BAW maintains close relationships with customers and principals. This allows BAW to understand	BAW insurances includes physical damage associated with changes in mean (average) precipitation levels, for example floods and droughts. The costs of this insurance was marginally below R33 million for the reporting period. BAW has invested significantly in water recycling and rainwater harvesting systems. For example, one Motor Retail dealership spent R0.4 in improving water-use efficiency

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>precipitation levels and resulting floods or droughts could impact on BAW's customers, including mining operations, impacting on the demand for goods/services. Increased precipitation may negatively affect safety levels and increase vehicle collisions which could increase insurance premiums. Four potential impacts were identified:</p> <ol style="list-style-type: none"> 1. Increased operational cost. 2. Increased capital cost. 3. Reduced demand for goods / services. 4. Inability to do business. <p>The most significant of these impacts was assessed as "Increased operational cost".</p>							<p>customers' exposure and requirements as well as to collaborate with principals to adapt products to address customers' needs.</p>	<p>through installation of a water recycling plant to reduce water withdrawals from the municipal water supply.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Snow and ice	Severe snow and ice as a result of climate change could result in unsafe working environments and ultimately stop operations. Temperatures below safe operating ranges for vehicles, plant and equipment could halt operations. Severe snow and ice could result in increased expenditure on energy and equipment required for heating and defrosting. Customers would be similarly affected. These would also impact BAW's supply chains negatively affecting supply with concomitant restraints on BAW's ability to provide its integrated customer	Increased operational cost	Up to 1 year	Direct	More likely than not	Low-medium	Inherent risk value of below R50 million and a residual risk value of below R10 million.	BAW insures for any physical and consequential damages. All BAW facilities maintain business plans that incorporate emergency response actions and business continuity. Close relationships with leading world class principals and the geographical diversity of BAW's products, its supply chains and manufacturing footprint, and its customers minimises this risk as it is typically confined to specific regions. BAW operates in 24 countries and the diversification of the group reduces the	Significant insurance cover is provided at group level which extends to physical and consequential damages. The costs of this insurance was marginally below R33 million for the reporting period. Costs associated with mitigation controls are not ring-fenced but incorporated into ongoing activities, revenue and cost bases of BAW companies.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>solutions. Frequent snow and ice may negatively affect safety levels and increase vehicle collisions which could increase insurance premiums. In extreme cases, snow and ice could lead to death and/or physical disability of employees or third parties. Four potential impacts were identified: 1. Increased operational cost. 2. Increased capital cost. 3. Reduced demand for goods / services. 4. Inability to do business. The most significant of these impacts was assessed as "Increased operational cost".</p>							impact of the risk as snow and ice are typically contained to specific region/s and impacts only on specific operations.	
Tropical cyclones	Cyclones and other extreme	Inability to do business	Up to 1 year	Direct	Likely	Low	Inherent risk value of below	BAW insures for any physical	Significant insurance

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
(hurricanes and typhoons)	<p>weather events would cause physical damage to facilities, result in unsafe working environments and ultimately stop operations. Customers would be similarly affected. BAW's supply chains could also be impacted; negatively affecting supply with concomitant restraints on the group's ability to provide its integrated customer solutions. Weather events can have a direct and indirect cost for the group. For example, a hailstorm can damage infrastructure and vehicles resulting in expenditure on repairs. A hailstorm would also damage vehicles not</p>						<p>R25 million and a residual risk value of below R10 million. Hail is an example of an extreme weather event. Hail damage from one specific hailstorm in South Africa resulted in some R3 million in repair costs for the rental fleet within the reporting period.</p>	<p>and consequential damages. All BAW facilities maintain business plans that incorporate emergency response actions and business continuity. The geographic diversification of BAW, the diversity of its products, its supply chains and manufacturing footprint, and its customers minimises this risk as it is typically confined to specific regions. BAW operates in 24 countries and tropical cyclones (hurricanes and typhoons) generally only occur in one specific region at a given time.</p>	<p>cover is provided at group level which extends to physical and consequential damages. The costs of this insurance was marginally below R33 million for the reporting period. Costs associated with mitigation controls are not ring-fenced but incorporated into ongoing activities, revenue and cost bases of BAW companies.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>owned by Avis and require Avis to provide vehicles to customers of insurance companies who have a rental option on their policies. This could result in revenue loss as Avis has rental agreements with insurers which have lower than market rates. In extreme cases, tropical cyclones could lead to death and/or physical disability of employees or third parties. Four potential impacts were identified: 1. Increased operational cost. 2. Increased capital cost. 3. Reduced demand for goods / services. 4. Inability to do business. The most significant of</p>								

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	these impacts was assessed as "Inability to do business".								
Change in temperature extremes	Changes in temperature extremes impacts on working conditions and has safety implications for BAW employees. It could require investment in new HVAC (capital expense) and temperature control equipment to ensure that the employees are able to work in a comfortable and safe environment. This risk will also give rise to more frequent use and maintenance of existing HVAC equipment, resulting in increased operational costs. Three potential impacts were identified: 1. Increased	Increased operational cost	3 to 6 years	Direct	Likely	Low	Inherent risk value of below R25 million and a residual risk value of below R10 million.	BAW manages the risks of increased costs associated with the need for additional air-conditioning by installing and maintaining energy efficient and adequate HVAC units in its operations. In terms of mitigating the impact of this risk on the health and safety of its employees, health and safety committees are established across the group. Management consults with the committees with a view to initiate, develop, promote,	These costs are incorporated into the ongoing cost base of the group. An example is the cost for HVAC units. BAW has spent over R0.9m on HVAC units in the reporting year. This expenditure formed part of the ongoing operational costs of the business. BAW has spent in excess of R1.6m on employee wellness programmes over the reporting period. The expenditure on wellness

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	operational cost. 2. Increased capital cost. 3. Inability to do business. The most significant of these impacts was assessed as "Increased operational cost".							maintain and review measures to ensure the health and safety of all employees and visitors. BAW has employee wellness programmes which provide ongoing health services to employees to ensure that employees' health needs are met.	programmes is also part of the ongoing operating costs of the business and are not ring-fenced in terms of climate change.
Sea level rise	Sea level rise could damage harbour infrastructure and disrupt low-lying areas and industries, with negative consequences on BAW's supply chains as significant amount of vehicles, plant and equipment are transported by sea. Optimal and efficient	Reduced demand for goods/services	>6 years	Direct	Likely	Low	Inherent risk value of below R25 million and a residual risk value of below R10 million.	BAW insures for any physical and consequential damages. All BAW facilities maintain business plans that incorporate emergency response actions and business continuity. The geographic diversification of BAW, the	Significant insurance cover is provided at group level which extends to physical and consequential damages. The costs of this insurance was marginally below R33 million for the reporting period. Costs associated with

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>routes may be affected impacting on BAW competitive advantage. Two potential impacts were identified: 1. Reduced demand for goods / services. 2. Inability to do business. The most significant of these impacts was assessed as "Inability to do business".</p>							<p>diversity of its products, its supply chains and manufacturing footprint minimises this risk as it is typically confined to specific regions. BAW operates in 24 countries. Damage to harbour infrastructure usually results from a combination of sea level rise and extreme weather events which generally only occur in one specific region at a given time.</p>	<p>mitigation controls are not ring-fenced but incorporated into ongoing activities, revenue and cost bases of BAW companies.</p>
Other physical climate drivers	<p>The following physical climate change risk drivers may also impact aspects of Barloworld's supply chain, albeit to varying degrees: -</p>	Reduction/disruption in production capacity	3 to 6 years	Indirect (Supply chain)	More likely than not	Medium	<p>Inherent risk value of below R35 million and residual risk value of below R5 million.</p>	<p>The likelihood and impact of these risk drivers are mitigated through the following: 1. BAW engages with world-class</p>	<p>No additional costs associated with the mitigation of this risk. Activities such as geographic and industry diversification</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Change in mean (average) temperature - Change in temperature extremes - Change in mean (average) precipitation - Change in precipitation patterns - Change in precipitation extremes and droughts - Snow and ice - Sea level rise - Tropical cyclones (hurricanes and typhoons) - Uncertainty of physical risks</p> <p>Although the potential impact/s for each of these will vary, these can be categorised as follows: 1. Reduction / disruption in production capacity 2. Inability to do business The most significant of these impacts</p>							<p>suppliers that are managing risks; 2. BAW has a diversified product offering, supply chain and manufacturing footprint and operates across different industries and 24 countries. 3. BAW has insurance protection for losses incurred as a result of a supplier's inability to deliver after suffering an insured event. The likelihood of BAW's entire supply chain being impacted by any of the selected risk drivers simultaneously is extremely remote.</p>	<p>and engagement with world class principals are part of the group's overall risk management approach. There are also no additional costs associated with providing a wide range of products. These costs are part of the relevant product and equipment offering available from principals and therefore included in the group's 'cost of sales' which was some R49 billion for FY2014. Significant insurance cover is provided at group level which extends</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	was assessed as "Reduced / disruption in production capacity".								to physical and consequential damages. The costs of this insurance was marginally below R33 million for the reporting period.
Other physical climate drivers	The following physical climate change risk drivers may also impacts Barloworld's customers, albeit to varying degrees: - Change in mean (average) temperature - Change in temperature extremes - Change in mean (average) precipitation - Change in precipitation patterns - Change in precipitation extremes and droughts - Snow and ice - Sea level rise -	Reduced demand for goods/services	3 to 6 years	Indirect (Client)	More likely than not	Medium	Inherent risk value of below R35 million and residual risk value of below R5 million.	The likelihood and impact of these risk drivers are mitigated through BAW's diversified offering and operating across different industries and in 24 countries. The likelihood of BAW's customer base being impacted by any of the selected risk drivers simultaneously is extremely remote.	No additional costs associated with the mitigation of this risk. Activities such as geographic and industry diversification are part of the group's overall risk management approach. There are also no additional costs associated with providing a wide range of products. These costs are part of the relevant product and equipment

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Tropical cyclones (hurricanes and typhoons) - Uncertainty of physical risks Although the potential impact for each of these will vary, these will ultimately result in "reduced demand for goods/services" due to disruption in customer's operations.								offering available from principals and therefore included in the group's 'cost of sales' which was some R49 billion for FY2014.

CC5.1c

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behaviour	Shifts in consumer preference to locally sourced products with a reduced carbon footprint may	Reduced demand for goods/services	3 to 6 years	Direct	Likely	High	Inherent risk value below R450 million and a residual risk value below R45 million.	BAW is widely diversified across products and customers and offers a range of products	No additional costs. Costs associated with providing a wide product range and developing

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>affect the group's logistics business, as well as other products supplied by group. In addition, there are competitive risks from suppliers who may enter the market with technologies, products and services with greater energy and emission efficiencies or lower impacts on the environment.</p>							<p>including a number of low emission technologies. BAW's principals are committed to developing new technologies that meet emission requirements, adapting existing technologies to meet these requirements and assisting customers in reducing their carbon footprints. Barloworld Power offers high efficiency technology (up to 44%) gas generators. The gas generator offerings can utilise natural gas, biogas (landfill and sewerage) or coal bed methane. Together with these solutions, Combined Heat</p>	<p>new products are incorporated into the ongoing operational activities and cost base of the group. In some cases, the costs associated with developing new products may be covered in the group's 'cost of sales' which was some R49 billion for FY2014.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								and Power (CHP) technology can be incorporated to offer even higher energy efficiency, where the heat generated can be utilised further for heating or cooling requirements by incorporating heat exchangers or chillers into the overall solutions. Also, Logistics supply chain optimisation offerings reduce emissions through CINO and CAST-CO2, etc. This investment assists customers in reducing their emissions.	
Other drivers	Given growing public awareness on issues such as climate change,	Inability to do business	Up to 1 year	Direct	Likely	Medium-high	Inherent risk value of below R325 million and a	BAW is committed to regular engagement	These costs are incorporated in the ongoing

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>environmental stewardship, these need to be important aspects of the employee value proposition in order to attract and retain talent. Insufficient attention to this aspect results in the inability to attract and retain the required talent which could result in a lack of skills and, therefore, the inability to do business. Two potential impacts were identified:</p> <ol style="list-style-type: none"> 1. Increased operational costs. 2. Inability to do business. The key impact identified for this risk is "Inability to do business". 						residual risk value of below R30 million.	<p>with employees. Aspects of its Employee Value Model include responsible corporate citizenship and sustainability. Employee involvement and buy-in is central to the identification and implementation of energy and emission efficiency initiatives. BAW is committed to training and upskilling. Responsible practices ensure employee pride, commitment and are an element of attracting and retaining key skills. In addition, BAW has processes in place to ensure the effective management of risks and opportunities presented by</p>	<p>salary and recruitment costs as well as training spend. Total training spend in FY2014 was R129m. This includes investment in training staff on climate change.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								climate change. BAW publishes GHG emissions and actions to reduce the impact of climate change on the organization. Consistent and ongoing interaction with stakeholders assists BAW in ensuring that it is addressing expectations and that stakeholders are aware of what BAW is doing to manage the risks presented by climate change.	
Reputation	There may be risks associated with shareholder or public activism arising from climate change issues resulting in financial and reputational risks for companies that might inadvertently fall	Reduced demand for goods/services	3 to 6 years	Direct	More likely than not	Medium-high	Inherent risk value of below R200 million and a residual risk value of R20 million.	BAW engages with stakeholders on an ongoing basis in order to manage its reputation and to ensure that it is addressing stakeholder expectations. BAW has	No additional costs. These costs are incorporated into the ongoing operational activities and cost base of the group. For example, in the FY2014, the

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>foul of regulations or public opinion. Reputational damage could negatively affect commercial standing and activity of group as well as its ability to attract and retain key talent. Reputational damage could result in a reduced demand for goods and services. Three potential impacts were identified:</p> <ol style="list-style-type: none"> 1. Reduced demand for goods / services. 2. Reduced stock price valuation. 3. Inability to do business. The most significant of these impacts was assessed as "Reduced demand for goods/ services". 							<p>implemented reporting systems for climate change data. This data is assured by the group external auditors to provide confidence in the numbers for stakeholders. BAW reports its GHG emissions and management of climate change risks and opportunities to stakeholders. BAW is involved in advertising in the area of sustainability in order to inform stakeholders of its efforts in terms of climate change. BAW represents world class principals that strive to minimise the climate change impacts of their products and services and</p>	<p>cost incurred for assurance and sustainability advertising was some R0.6m.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>their own operations. For example, Caterpillar strives to reduce greenhouse gas emissions intensity by 50 percent from 2006 for its own operations. Staying ahead of developments in the market and representing international leading brands allows BAW to uphold its reputation as a responsible corporate citizen. Additionally, BAW responds annually to the CDP's Climate Change disclosure project, which emphasises its commitment to responding responsibly to climate change and to transparent</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								reporting to its stakeholders.	
Fluctuating socio-economic conditions	A loss of business confidence may result due to climate change events, as financial and social consequences add to inflationary pressures and detrimentally affect morale, standards of living, etc. This would negatively affect demand for BAW's products and services. Changes in human settlement patterns, as well as in financial and insurance markets, could take place as a result of climate change and this would impact on long term strategic decisions such as business models and locations and	Reduced demand for goods/services	3 to 6 years	Direct	Unlikely	High	Inherent risk value of below R150 million and a residual risk value of below R35 million.	BAW is in constant contact with customers in order to understand the pressures customers are experiencing and to assist in alleviating these pressures and providing solutions that address customers' needs. Strategic planning processes and scenario planning processes are in place within BAW which also assist in managing this risk. Furthermore, this risk is managed by: - Geographic and industry diversification of BAW. BAW operates across	Costs associated with mitigation controls are not ring-fenced but incorporated into the ongoing operational activities and cost base of the group

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>how capital and human resources are allocated, accessed and managed. Two potential impacts were identified:</p> <ol style="list-style-type: none"> 1. Reduced demand for goods / services. 2. Wider social disadvantages. <p>The most significant of these impacts was assessed as "Reduced demand for goods/ services".</p>							<p>24 countries and has a diverse range of customer offerings across six identified strategic growth segments.</p> <ul style="list-style-type: none"> - Inflationary pressures can be carefully monitored and managed as appropriate. - Monitor customers' ability to spend and access credit. -Reduce working capital. -Limit capital expenditure and improve cashflow. - Secure adequate committed borrowing facilities. 	
Other drivers	Climate change could increase the spread of disease which could have a negative impact on the health of	Increased operational cost	3 to 6 years	Direct	More likely than not	Medium	Inherent risk value of below R70 million and a residual risk value of below R10	BAW is actively involved in managing the health and safety of its staff. BAW believes that it is every	These costs are incorporated into the ongoing operational activities and

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>employees. This could pose a risk to the organisation and would need to be managed through health and safety structures and functions, e.g. impacts on employee wellness and assistance programmes will need to be considered and addressed. Additional staff costs will also be incurred if the health impacts result in prolonged leave of absence. Similarly, these would also impact the group's supply chains and customers negatively affecting demand and supply. Two potential impacts were identified: 1. Increased operational cost.</p>						million.	<p>employee's right to work in a healthy and safe environment. To this end, health and safety committees are established across the group. A number of employee wellness and support programmes are in place, including medical aid schemes and assistance programmes. These programmes will assist in mitigating the health impacts of climate change on staff. BAW Equipment has on-site clinics in South Africa and Spain. Other divisions have appropriate resources. The logistics business has an</p>	<p>cost base of the group. For example, in FY2014, BAW spent in excess of R1.6m on employee wellness programmes throughout the group.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>2. Wider social disadvantages. The most significant of these (direct) impacts was assessed as "Increased operational cost".</p>							<p>employee 'wellness line' in place for its South African employees and their families. The corporate office in South Africa has wellness days where employees can undergo a number of health-related assessments and tests, and receive advice. In Equipment southern Africa, five occupational health personnel provide counselling on various communicable diseases. An occupational health section on their intranet is available to all employees. The employee wellness programmes include access to various</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								counsellors and related professionals on a national basis. BAW engages regularly with employees to determine if there are any concerns that need to be addressed. This allows BAW to put in place systems and processes to ensure that staff needs are addressed.	
Increasing humanitarian demands	Taxes to fund humanitarian needs and CSI/socio-economic development spend could increase as a result of climate change impacts on vulnerable communities. Companies are increasingly being viewed as co-responsible with elected	Increased operational cost	3 to 6 years	Direct	More likely than not	Low-medium	Inherent risk value of below R50 million and a residual risk value of below R15 million.	The group strives to be responsive to the interests and concerns of its local communities. This approach is underpinned by a value-based management philosophy which commits the group to creating sustainable value for all of its	The group allocates a minimum of 1% of its net profits after tax to CSI. In FY2014, BAW spent R16.8m on CSI. Humanitarian demands may increase as a result of climate change impacts on vulnerable communities.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	governments for remedying socio-economic problems. Two potential impacts were identified: 1. Increased operational cost. 2. Wider social disadvantages. The most significant of these impacts was assessed as "Increased operational cost".							stakeholders, including playing a meaningful role in society through active corporate citizenship. Development partnerships are established and investments made in interventions which address a range of societal issues. Donations are made at various divisional and business unit levels, often linked to their communities, industry, products or workplaces. BAW is involved in a number of CSI initiatives and the link between these initiatives and climate change may evolve over time.	Whilst CSI spend is quantifiable, the key controls explained above do not result in any additional costs nor are these costs ring-fenced as it is part of the ongoing operational costs.
Other drivers	The following	Reduction/disruption	3 to 6	Indirect	About as	Medium	Inherent risk	The likelihood	No additional

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>'other' risk drivers may also impact aspects of Barloworld's supply chain, albeit to varying degrees: - Reputation - Induced changes in human and cultural environment - Fluctuating socio-economic conditions - Increasing humanitarian demands - Uncertainty in social drivers - Uncertainty in market signals</p> <p>Although the potential impact/s for each of these will vary, these can be categorised as follows: 1. Reduction / disruption in production capacity 2. Inability to do business</p> <p>The most significant of these impacts</p>	in production capacity	years	(Supply chain)	likely as not		value of below R35 million and residual risk value of below R5 million.	and impact of these risk drivers are mitigated through the following: 1. BAW engages with world-class suppliers that are managing risks; 2. BAW has a diversified product offering, supply chain and manufacturing footprint and operates across different industries and in 24 countries. 3. BAW has insurance protection for losses incurred as a result of a supplier's inability to deliver after suffering an insured event. The likelihood of BAW's entire supply chain being impacted by any of the selected risk drivers	costs associated with the mitigation of this risk. Activities such as geographic and industry diversification and engagement with world class principals are part of the group's overall risk management approach. There are also no additional costs associated with providing a wide range of products. These costs are part of the relevant product and equipment offering available from principals and therefore included in the group's 'cost of sales' which was some R49

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	was assessed as "Reduced / disruption in production capacity"							simultaneously is extremely remote.	billion for FY2014. Significant insurance cover is provided at group level which extends to physical and consequential damages. The costs of this insurance was marginally below R33 million for the reporting period.
Other drivers	The following physical climate change risk drivers may also impacts Barloworld's customers, albeit to varying degrees: - Reputation - Induced changes in human and cultural environment - Fluctuating socio-economic conditions - Increasing	Reduced demand for goods/services	3 to 6 years	Indirect (Client)	About as likely as not	Medium	Inherent risk value of below R35 million and residual risk value of below R5 million.	The likelihood and impact of these risk drivers are mitigated through BAW's diversified offering and operating across different industries and in 24 countries. The likelihood of BAW's customer base being impacted by any of the selected risk drivers	No additional costs associated with the mitigation of this risk. Activities such as geographic and industry diversification are part of the group's overall risk management approach. There are also no additional costs associated with

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	humanitarian demands - Uncertainty in social drivers - Uncertainty in market signals Although the potential impact for each of these will vary, these will ultimately result in "reduced demand for goods/services".							simultaneously is extremely remote.	providing a wide range of products. These costs are part of the relevant product and equipment offering available from principals and therefore included in the group's 'cost of sales' which was some R49 billion for FY2014.

CC5.1d

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

CC5.1e

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

CC5.1f

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

Further Information

Page: CC6. Climate Change Opportunities

CC6.1

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

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

CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
General environmental regulations, including planning	<p>BAW has the opportunity to differentiate from competitors by implementing internal initiatives which reduce emissions and by adapting existing and developing new solutions which assist customers to reduce their emissions. Potential exists for establishment of new business units offering supplementary or complementary products, services and solutions. Three potential impacts were identified for this opportunity: 1. Reduced operational cost. 2. Increased demand for existing goods / services. 3. New products/ business services. The most significant of</p>	Increased demand for existing products/services	Up to 1 year	Direct	More likely than not	High	Estimated opportunity up to R140 million.	<p>Opportunities are identified through BAW's strategic planning and stakeholder engagement processes. Through association with global leading principals and brands, BAW is able to provide products and solutions with reduced environmental footprint and which assists customers achieve their sustainable development objectives. The group also develops leading integrated customer solutions and offerings including supply chain</p>	<p>The costs associated with developing the opportunities form part of the ongoing costs of the business or are part of the product offering and form part of the normal 'cost of sales' which was R49 billion for FY2014. For example, 'Green trailers' (Truck and trailer) were designed with improved aerodynamics at a cost of R588000. This cost was incorporated into the operating costs of the business.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>these impacts was assessed as "Increased demand for existing goods / services".</p>							<p>optimisation and energy efficiency. Examples include: Cat® 336 hydraulic hybrid excavator, anticipated availability in BAW territories in 2016, contains a number of component upgrades and new technology that provides up to 25 to 30 percent improvement in fuel efficiency. BAW Logistics has developed a 'green trailer' (Truck and trailer) and CAST-CO2 products which respectively increase fuel and emission</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								efficiency, optimise supply chains and minimise carbon emissions.	
Product efficiency regulations and standards	Customers are increasingly requesting products and solutions which assist them in achieving their energy and emission reduction targets. Supported by its principals, BAW is committed to providing leading products and solutions that enable customers to meet their sustainable development objectives. The increased need for low emitting and energy efficient products could result in increased demand for BAW's products. Two potential	Increased demand for existing products/services	Up to 1 year	Direct	More likely than not	Medium-high	Estimated opportunity up to R140 million.	BAW is constantly evaluating the market and liaising with customers to understand their needs. Driven by the need to address customer requirements. BAW engages with principals to develop new products and adjust existing offerings to be more efficient. BAW Power focuses on providing customers with solutions to their energy security and energy efficiency	Costs associated with developing the opportunities form part of the ongoing costs of the business or are part of the product offering and form part of the normal 'cost of sales' which was R49 billion for FY2014. For example, 'Green trailers' (Truck and trailer) were designed with improved aerodynamics at a cost of R588000. This cost was incorporated into the operating costs of the

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>impacts were identified for this opportunity: 1. Increased demand for existing goods / services 2. New products/ business services. The most significant of these impacts was assessed as "Increased demand for existing goods / services".</p> <p>Three potential drivers were identified for this opportunity; 1. Air pollution limits. 2. Product efficiency regulations and standards. 3. Fuel/ Energy taxes and regulations. These drivers give rise to the similar opportunities and responses.</p>							<p>challenges. BAW acquired a 25% shareholding in re- which is an environmental solutions company. re- focuses on reducing, reusing and recycling waste with the objective of reducing GHG emissions associated with waste disposal. By offering the services of re- to its customers, BAW is assisting customers reduce their GHG emissions. In 2009, BAW's Logistics business, collaborated with the CSIR and other partners in</p>	<p>business.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								designing a more energy efficient and ergonomic vehicle which can carry a higher payload and be streamlined enough in its design to reduce the fuel consumption and ultimately the emissions (currently projected at 7% reduction per trip, Johannesburg to Durban).	
Voluntary agreements	Efforts to meet group's commitments in terms of Energy Efficiency Leadership Network Pledge have given BAW companies a head start in embedding energy efficiency and climate	Reduced operational costs	Up to 1 year	Direct	Virtually certain	Medium	Estimated opportunity up to R35 million.	Being an early signatory to Energy Efficiency Leadership Network Pledge and generally an early adopter of standards and legislation, the group has a	The investment costs associated with the implementation of energy efficiency improvement projects was some R6m in FY2014.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>change in policy, strategies and operations. As a result, the group is better informed on climate change issues and is well positioned to engage on existing and emerging climate change regulations. Two potential impacts were identified for this opportunity: 1. Increased demand for existing goods / services. 2. Reduced operational costs. The most significant of these impacts was assessed as "Reduced operational costs".</p>							<p>head-start on monitoring, measuring and reporting its emissions. In this way, BAW will be prepared for any mandatory reporting and the introduction of carbon taxes. This could result in a competitive advantage for the group. BAW has implemented and will continue to implement emission reduction activities. This will reduce the group's operational costs and provide a competitive advantage.</p>	
Product labelling	Requirements to include carbon	Increased demand for	Up to 1 year	Direct	Virtually certain	Medium-high	Estimated opportunity	The group is committed to	Costs associated

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
regulations and standards	<p>footprint data on product labels would present an opportunity for BAW as most products distributed by the group already carry labels which include this information. Product labelling regulations would assist in addressing threats presented by 'grey goods' which could increase demand for BAW's goods and services.</p>	existing products/services					up to R200 million.	<p>ensuring that all products sold have the certification, labelling, product and service information required by respective local laws. Products are essentially vehicles, plant, equipment and related use thereof. In principle, the information and labelling is the responsibility of the Original Equipment Manufacturers (OEMs). This information is conveyed to customers in handbooks, handover procedures and, where appropriate, displayed on the vehicle,</p>	with product labelling are not separately identifiable and are included in group 'cost of sales' of R49 billion for FY2014.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								plant or equipment. Every product sold into the European Union has to be certified under Conformité Européenne (European Conformity) standards. Information also includes vehicle, plant and equipment operating procedures, maintenance procedures and service intervals and safety.	
Other regulatory drivers	New regulations which require disclosure of information on environmental stewardship, including climate change, may provide opportunities for BAW companies	Other: Competitive advantage	Up to 1 year	Direct	Virtually certain	Medium-high	Estimated opportunity up to R140 million.	BAW monitors the development of new regulation and is often part of the consultation process through trade and business	In FY2014, the cost incurred for assurance services for non-financial indicators (including energy and emissions) was some R0.5m.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	to differentiate from their competitors and gain competitive advantage in, for example, applying for licenses, tenders or finance.							associations or directly through government. The group has implemented a reporting system for climate change and GHG emissions. GHG emission data is assured by the group external auditors to ensure accuracy.	
International agreements	Under the second commitment period of the Kyoto Protocol a number of countries made commitments to reduce emissions. Examples include: - South Africa's voluntary commitment to a significant emissions reduction target of	Increased demand for existing products/services	3 to 6 years	Direct	Likely	Medium	Estimated opportunity up to R50 million.	BAW is constantly evaluating the market and liaising with customers to understand their requirements. Driven by the need to address customer requirements, BAW engages	Costs associated with developing the opportunities form part of the ongoing costs of the business or are part of the product offering and form part of the normal 'cost of sales' which was R49 billion

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>34% by 2020 and 42% by 2025, dependent on technical and financial assistance. The European Union has a target to reduce GHG emissions by 20% by 2020 off 1990 levels. Commitments made by countries under these international agreements are typically pushed down onto business. This may present an opportunity for BAW to develop and sell new products that reduce the impact of these agreements and resulting penalties and taxes on its customer base. In addition this also presents an opportunity for BAW to reduce its emissions</p>							<p>with principals to develop new products and adjust existing offerings to be more efficient. For example, the Cat® 336 hydraulic hybrid excavator, anticipated availability in BAW territories in 2016, contains a number of component upgrades and new technology that provides up to 25 to 30 percent improvement in fuel efficiency. Barloworld Power offers high efficiency (up to 44%) technology gas generators. The gas</p>	<p>2014FY.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>internally and thus reduce the impact of any agreements and resulting penalties and taxes on its operational cost. Three potential impacts were identified for this opportunity: 1. Reduced operational cost. 2. Increased demand for existing goods/services. 3. New products/business services. The most significant of these impacts was assessed as "Increased demand for existing goods/services".</p>							<p>generator offerings can utilise natural gas, biogas (landfill and sewerage) or coal bed methane. BAW acquired a 25% shareholding in re- which is an environmental solutions company. re- focuses on reducing, reusing and recycling waste with the objective of reducing GHG emissions associated with waste disposal. By offering these products and services, BAW is assisting customers reduce their GHG emissions. BAW's</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Logistics' collaborated with the CSIR and other partners in designing a more energy efficient and ergonomic vehicle which can carry a higher payload and be streamlined enough in its design to reduce the fuel consumption and ultimately the emissions (currently projected at 7% reduction per trip, Johannesburg to Durban).	
Renewable energy regulation	Renewable energy regulations which set targets for the inclusion of renewable energy in the fuel mix could enable	Increased demand for existing products/services	3 to 6 years	Direct	More likely than not	Medium	Estimated opportunity up to R35 million.	BAW is continually engaging with customers in order to understand their needs and	The costs to develop new products or adapt existing products are part of the relevant product and

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	BAW and its principals to develop new renewable energy products and solutions for customers.							requirements. In order to meet these needs, BAW partners with principals in the development of new products or the modification of existing products. BAW represents leading brands and engages with world class principals that are involved in providing solutions that produce energy or use less energy than alternatives on the market. An example is Barloworld Power which assists customers in managing energy	equipment offering available from principals and therefore included in normal 'cost of sales', which was R49 billion for FY2014.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								consumption and in ensuring energy security. BAW Power offers high efficiency (up to 44%) technology gas generators. The gas generator offerings can utilise natural gas, biogas (landfill and sewerage) or coal bed methane.	
Carbon taxes	The introduction of a carbon tax may increase demand for BAW's energy efficient equipment and offerings. In addition, it may present an opportunity for BAW to develop and sell new products that reduce the impact of a carbon tax on	Reduced operational costs	Up to 1 year	Direct	Virtually certain	Low-medium	The potential value of the opportunity is R5 million.	Being an early signatory to Energy Efficiency Leadership Network Pledge and generally an early adopter of standards and legislation, the group has a head-start on monitoring, measuring	The investment costs associated with the implementation of energy and emission efficiency improvement projects was some R6m in FY2014.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>its customer base. The introduction of a carbon tax also offers BAW the potential to reduce emissions and energy consumption, reduce operational costs and reduce the impact of the carbon tax. Three potential impacts were identified for this opportunity: 1. Reduced operational cost. 2. Increased demand for existing goods / services. 3. New products/ business services. The most significant of these impacts was assessed as "Reduced operational cost".</p>							<p>and reporting its emissions. In this way, BAW will be prepared for any mandatory reporting and the introduction of carbon taxes. This could result in a competitive advantage for the group. BAW has implemented and will continue to implement emission reduction activities. Examples include energy efficient lighting and motion sensors, heat pump water heating, PV panels for signage, building management</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								systems and efficient HVAC systems. Other initiatives include the use of natural lighting, light coloured roof sheeting for thermal reflection and initiatives aimed at encouraging behaviour change. These activities and initiatives will reduce the impact of a carbon tax on the group by reducing BAW's emissions.	
Other regulatory drivers	BAW has an opportunity to access international technical assistance and concessionary finance being	Investment opportunities	3 to 6 years	Direct	More likely than not	Low-medium	Estimated opportunity up to R10 million.	For every project identified by the divisional managers or at group level, BAW assesses the	Developing business cases and monitoring available finance does not have an associated

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	made available to the private sector to develop solutions to climate change. BAW can use this finance to develop new offerings to assist customers in reducing emissions. Two potential impacts were identified for this opportunity: 1. Investment opportunities. 2. Reduced capital costs. The most significant of these impacts was assessed as "Investment opportunities".							project to determine if it meets the requirements of the available funds and incentives. The objective of accessing grants or preferential finance for projects is to build the business case for the initiative. BAW also partners with governmental organisations in the development of new products and services.	cost (R0) as it is built into the operating costs of the business.
Cap and trade schemes	BAW has the opportunity to participate in the compliance and voluntary carbon markets. Given the geographical diversification of the group, carbon	Investment opportunities	>6 years	Direct	Likely	Low	Estimated opportunity up to R5 million – this value is not necessarily significant, but should market	For every emission reduction project, BAW considers the possibility of carbon credits and the business case	Developing business cases and monitoring the development of market mechanisms does not have an associated

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	trading opportunities could exist between the various divisions. The development of new market mechanisms is also anticipated and this could present opportunities for BAW.						conditions improve and new market mechanisms be developed, this could change. As such, it may be feasible to access carbon credits in future.	for accessing these credits for the project. BAW monitors developments with new market mechanisms to see if there are opportunities to monetize the carbon and use the revenue to build the business case. Note that the group has adopted the MARSO (Measure, Avoid, Reduce, Switch and Offset) methodology to managing its carbon footprint and will consider offset opportunities only after having reduced its emissions.	cost (R0) as it is built into the operating costs of the business. BAW has already been involved in the carbon market through the purchase of offsets. Avis spent R0.5m on the purchase of voluntary carbon credits in FY2014.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other regulatory drivers	<p>The following regulatory opportunity drivers may also impact aspects of Barloworld's supply chain, albeit to varying degrees:</p> <ul style="list-style-type: none"> - Air pollution limits - Carbon taxes - Fuel/Energy taxes and regulations - Product efficiency regulations and standards - Product labelling regulation and standards - Voluntary agreements - General environmental regulations, including planning - Renewable energy regulation <p>Although the potential impact/s for each of these will vary, these will ultimately present an opportunity for BAW to engage with suppliers on</p>	New products/business services	3 to 6 years	Indirect (Supply chain)	Likely	Medium	Estimated opportunity up to R50 million.	<p>BAW is continually engaging with customers in order to understand their requirements. In order to address these needs, BAW partners with principals in the development of new products or the modification of existing products. BAW represents leading brands and engages with world class principals that are involved in providing solutions that produce energy or use less energy than alternatives on the market.</p>	<p>The costs to develop new products or adapt existing products are part of the relevant product and equipment offering available from principals and therefore included in normal 'cost of sales', which was R49 billion in FY2014.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>innovation of new product or services, hence the potential impact "New product/business services" as well as identifying opportunities in new industries.</p>							<p>An example is Barloworld Power which assists customers in managing energy consumption and in ensuring energy security. For example, Barloworld Power offers high efficiency (up to 44%) technology gas generators. The gas generator offerings can utilise natural gas, biogas (landfill and sewerage) or coal bed methane. More recently, Caterpillar has also expanded its renewable energy product offerings into</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Solar PV and micro grids. These offerings assist customers in reducing their energy consumption and emissions.	
Other regulatory drivers	The following regulatory opportunity drivers may also impact Barloworld's customers, albeit to varying degrees: - International agreements - Air pollution limits - Carbon taxes - Cap and trade schemes - Emission reporting obligations - Fuel/Energy taxes and regulations - Product efficiency regulations and standards - Product labelling	Increased demand for existing products/services	3 to 6 years	Indirect (Client)	Likely	Medium	Estimated opportunity up to R50 million.	BAW is continually engaging with customers in order to understand their requirements. In order to address these needs, BAW partners with principals in the development of new products or the modification of existing products as well as considers opportunities in new	The costs to develop new products or adapt existing products are part of the relevant product and equipment offering available from principals and therefore included in normal 'cost of sales', which was R49 billion in FY2014.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>regulation and standards - Voluntary agreements - General environmental regulations, including planning - Renewable energy regulations Three potential impacts have been identified for this opportunity: 1. Increased demand for existing products/services 2. Premium price opportunities 3. New products/business services The most significant of these impacts was assessed as "Increased demand for existing goods / services".</p>							<p>industries. BAW represents leading brands and engages with world class principals that are involved in providing solutions that produce energy or use less energy than alternatives on the market. For example, Barloworld Power offers high efficiency (up to 44%) technology gas generators. The gas generator offerings can utilise natural gas, biogas (landfill and sewerage) or coal bed methane. More recently, Caterpillar has also</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								expanded its renewable energy product offerings into Solar PV and micro grids. These offerings assist customers in reducing their energy consumption and emissions.	

CC6.1b

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) precipitation	Decreases in available water and water shortages as a result of climate change present an opportunity for the group as its water	Reduced operational costs	Up to 1 year	Direct	Likely	Low-medium	Estimated opportunity up to R15 million. The financial implications of the	BAW continues to implement initiatives to conserve water and improve water	The costs are associated with investment in recycling and rainwater harvesting facilities. For

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>recycling and water efficiency measures already in place will increase its resilience and reduce its operational costs relative to its competitors. Two potential impacts were identified for this opportunity: 1. Reduced operational cost 2. Increased demand for existing goods / services The most significant of these impacts was assessed as "Reduced operational cost". Two opportunity drivers were identified: 1. Change in mean (average) precipitation 2. Change in precipitation pattern These drivers give rise to similar opportunities and responses.</p>						<p>opportunity are associated with the cost savings as a result of recycling and rainwater harvesting initiatives. For example, additional water recycling and harvesting facilities implemented during the reporting period could potentially save an additional R125 000 per annum from reduced water withdrawals from billed municipal water sources.</p>	<p>use efficiency at its operations. Water monitoring systems are in place at most major sites to allow monitoring of consumption trends, identification of anomalies and mitigation against excessive and/or unnecessary use. BAW is committed to more efficient water consumption through reduced use, increased recycling and water-harvesting initiatives. Rainwater harvesting allows for water to be captured and used on-site</p>	<p>example, one Motor Retail dealership spent a total of R0.4m in improving water-use efficiency and to reduce water withdrawals from the municipal water supply through the installation of a water recycling plant.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								and reduces the impact of water shortages or supply interruptions. In FY2014, BAW recycled some 16.7% of its municipal water withdrawals. BAW continues to look for areas of improvement in terms of managing water.	
Change in mean (average) temperature	Shifts in weather and temperature patterns and related effects of these on local ecologies might open up new tourism destinations, increased arable land and new settlements which may open up new territories and markets for the	Increased demand for existing products/services	>6 years	Direct	Likely	Medium-high	Estimated opportunity up to R20 million.	Identification and realisation of opportunities driven by changes in physical climate parameters are embedded in ongoing management activities of group which includes	Generally these include: costs associated with the identification, assessment and operationalisation of new opportunities; additional investment in vehicles, plant and equipment and in sourcing and/or up-skilling human resources.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	group's products and services.							decentralised local attention, as well as group consolidation and review.	These together with costs incurred in developing and offering products and services that address energy and emission efficiencies are not ring-fenced but part of the ongoing activities and operational cost base.
Change in precipitation extremes and droughts	Flooding could damage infrastructure and droughts could negatively affect communities requiring relocation or development of infrastructure to mitigate impacts. These would create a demand for group's equipment and other offerings including BAW's Logistics offering.	Increased demand for existing products/services	3 to 6 years	Direct	Likely	Medium	Estimated opportunity up to R50 million.	Identification and realisation of opportunities driven by changes in physical climate parameters are embedded in ongoing management activities of the group which includes decentralised local attention, as well as group consolidation and review.	Generally these include: costs associated with the identification, assessment and operationalisation of new opportunities; additional investment in vehicles, plant and equipment and appropriate water recycling initiatives, and in sourcing and/or up-skilling human resources. These together with costs incurred in developing and offering products

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
									and services that address energy and emission efficiencies are not ring-fenced but part of the ongoing activities and operational cost base.
Snow and ice	Extreme snow and ice events may result in increased demand for BAW's products and services for power generation, repair and replacement of damaged infrastructure, plant and equipment, servicing, clearing and removal. This may positively affect demand for BAW's products and services as the group is well-positioned to provide the required solutions which include vehicles, plant and equipment.	Increased demand for existing products/services	Up to 1 year	Direct	About as likely as not	Medium	Estimated opportunity up to R35 million.	Identification and realisation of opportunities driven by changes in physical climate parameters are embedded in ongoing management of group which includes decentralised local attention, as well as group consolidation and review.	Generally these include: costs associated with the identification, assessment and operationalisation of new opportunities; additional investment in vehicles, plant and equipment and in sourcing and/or up-skilling human resources. These together with costs incurred in developing and offering products and services that address energy and emission efficiencies are not ring-fenced but part of the ongoing activities

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
									and operational cost base.
Other physical climate opportunities	Damaged infrastructure resulting from extreme weather events such as cyclones will need to be repaired. Damaged plant, equipment and vehicles will need to be replaced. Logistics solutions will be required to facilitate these aspects. In addition, uncertainty surrounding physical risks may create a demand for precautionary expenditure on infrastructure, standby plant and equipment for power generation. This could increase the demand for the group's customer offerings.	Increased demand for existing products/services	1 to 3 years	Direct	Likely	Medium-high	Estimated opportunity up to R150 million.	Identification and realisation of opportunities driven by changes in physical climate parameters are embedded in ongoing management activities of the group which includes decentralised local attention, as well as group consolidation and review.	Generally these include: costs associated with the identification, assessment and operationalisation of new opportunities; additional investment in vehicles, plant and equipment and appropriate water recycling initiatives, and in sourcing and/or up-skilling human resources. These together with costs incurred in developing and offering products and services that address energy and emission efficiencies are not ring-fenced but part of the ongoing activities and operational cost base.
Other physical climate	Sea level rise combined with extreme weather	Increased demand for existing	>6 years	Direct	Likely	Low	Estimated opportunity up to R10	Identification and realisation of	Generally these include: costs associated with

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
opportunities	events may result in damage to infrastructure, requiring rebuild and repair activity. This may positively affect demand for BAW's products and services as the group is well-positioned to provide the required solutions which include vehicles, plant and equipment.	products/services					million.	opportunities driven by changes in physical climate parameters are embedded in ongoing management activities of the group which includes decentralised local attention, as well as group consolidation and review.	the identification, assessment and operationalisation of new opportunities; additional investment in vehicles, plant and equipment and appropriate water recycling initiatives, and in sourcing and/or up-skilling human resources. These together with costs incurred in developing and offering products and services that address energy and emission efficiencies are not ring-fenced but part of the ongoing activities and operational cost base.
Other physical climate opportunities	The following physical climate parameter opportunity drivers may also impact aspects of Barloworld's supply chain, albeit to	Increased demand for existing products/services	3 to 6 years	Indirect (Supply chain)	More likely than not	Medium	Estimated opportunity up to R35 million.	BAW engages with world class global principals, who have robust risk management processes and	The costs to develop new products or adapt existing products are part of the relevant product and equipment offering available

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>varying degrees: - Change in mean (average) temperature - Change in temperature extremes - Change in mean (average) precipitation - Change in precipitation patterns - Change in precipitation extremes and droughts - Snow and ice - Induced changes in natural resources</p> <p>Should the above drivers materialise, these would normally result in disruptions to the supply chain. However given the geographical and product diversification of BAW's supply chain and the number of world class global principals it represents, it is anticipated that these would not result in significant disruptions to the overall group</p>							<p>contingency plans should any of the opportunity drivers materialise. While these would normally result in disruption in supply chains, the geographical and product offering diversification of BAW's supply chain should allow for continuity of supply allowing BAW to leverage its existing products and services in the market.</p>	<p>from principals and therefore included in normal 'cost of sales', which was R49 billion in FY2014.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	supply chain. The group's continued ability to supply a wide range of products in these circumstances could result in a competitive advantage leading to increased demand for existing BAW products/services.								
Other physical climate opportunities	The following physical climate parameter opportunity drivers may also impact Barloworld's customers, albeit to varying degrees: - Change in mean (average) temperature - Change in temperature extremes - Change in mean (average) precipitation - Change in precipitation patterns - Change in precipitation extremes and droughts - Snow and ice Although	Increased demand for existing products/services	3 to 6 years	Indirect (Client)	More likely than not	Medium	Estimated opportunity up to R35 million.	BAW is continually engaging with customers in order to understand their requirements and provide relevant innovative solutions. In order to address their requirements, BAW partners with principals in the development of new products or the modification of	The costs to develop new products or adapt existing products are part of the relevant product and equipment offering available from principals and therefore included in normal 'cost of sales', which was R49 billion in FY2014.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	the potential impact/s for each of these may vary, they will require various products and services from within BAW's wide range of offerings and therefore present an opportunity to BAW through "Increased demand for existing products/services".							existing products as well as considers opportunities in new industries. BAW represents leading brands and engages with world class principals to provide a wide range of products and flexible solutions that are relevant in changing terrains and under different operating conditions.	

CC6.1c

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behaviour	Shifts in consumer preference is arguably impacted by physical evidence of climate change leading to increased demand for more energy and emission efficient products and services. BAW has the opportunity to capitalise on this by continuing to supply required products to the market and by developing new products that address customers' needs.	Increased demand for existing products/services	3 to 6 years	Direct	Likely	High	Estimated opportunity up to R200 million.	BAW is constantly evaluating the market and liaising with customers to understand their needs. The group engages with principals who have developed a number of energy efficient products. For example, BAW Power offers high efficiency (up to 44%) technology gas generators. The gas generator offerings can utilise natural gas, biogas (landfill and sewerage) or coal bed methane. BAW acquired a 25% shareholding in re- which is an environmental solutions company. re- focuses on reducing,	The costs associated with developing the opportunities form part of the ongoing costs of the business or are part of the product offering and form part of the normal 'cost of sales' which was R49 billion in FY2014.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								reusing and recycling waste with the objective of reducing GHG emissions associated with waste disposal. By offering the services of re- to its customers, BAW is assisting customers reduce GHG emissions. Avis' rental fleets consist of vehicles less than 12 months old, which incorporate the latest efficiency technology. These offerings assist customers in reducing emissions.	
Reputation	BAW has the opportunity to gain more market share as a result of protecting their reputation by	Increased demand for existing products/services	Up to 1 year	Direct	Likely	Medium-high	Estimated opportunity up to R100 million.	BAW engages with stakeholders on an ongoing basis in order to manage its	No additional costs. These costs are incorporated into the ongoing

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>managing climate change risks and opportunities effectively. This is further supported by a skills base and products/services which satisfy significant customers in all regions that require the same high standards in their products, levels of service and environmental commitments. It is also supported by its willingness to behave in an ethical and responsible manner to ensure that risks are fairly and equitably managed, in an era where the general trend may be for parties to attempt to avoid or pass-on risks associated with climate change.</p>							<p>reputation and to ensure that it is addressing stakeholder expectations. BAW has implemented reporting systems for climate change data. This data is assured by the group external auditors to provide confidence in the data for stakeholders. BAW reports its GHG emissions and management of climate change risks and opportunities to stakeholders. BAW is involved in advertising in the area of sustainability in order to inform stakeholders of its efforts in terms of climate change. BAW</p>	<p>operational activities and cost base of the group. For example, in FY2014, the cost incurred for assurance and sustainability advertising was some R0.6m.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>represents world class principals that strive to minimise the climate change impacts of their products and services. Staying ahead of developments in the market and representing international leading brands allows BAW to uphold its reputation as a responsible corporate citizen. Additionally, BAW responds annually to the CDP's Climate Change disclosure project, which emphasises its commitment to responding responsibly to climate change and to transparent</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								reporting to its stakeholders.	
Other drivers	BAW has the opportunity to be part of disseminating best practice in terms of managing climate change risks and opportunities. There are opportunities to expedite information sharing and activities regarding climate change with other companies, non-governmental organisations and government agencies through relevant and appropriate forums.	Wider social benefits	Up to 1 year	Direct	Likely	Low	The opportunity does not have a direct financial value. By sharing best practice, BAW is able to assist other companies and organisations on their journey to manage climate change and reduce emissions. The value is tied up with the learnings that other companies take from BAW's experiences and what BAW receives from other companies.	BAW is involved in a number of trade and business associations through which it is able to share best practice. One such committee is the National Business Initiative's Energy Efficiency Leadership Network Advisory Committee. Through this committee, BAW is able to share their experience regarding energy efficiency projects and learn from others.	Membership fees are paid for belonging to various trade and business associations. For example, total spend on membership fees and sponsorships including those to external environmental initiatives to public benefit across the group amounted to some R1.09m in FY2014.
Other drivers	The following other climate-related development	Increased demand for existing	3 to 6 years	Indirect (Supply chain)	Likely	Medium	Estimated opportunity up to R35 million.	BAW engages with world class global	The costs to develop new products or

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>opportunity drivers may also impact aspects of Barloworld's supply chain, albeit to varying degrees: - Reputation - Changing consumer behaviour - Induced changes in human and cultural environments - Fluctuating socio-economic conditions - Increased humanitarian demands Should the above drivers materialise, these would normally result in disruptions to the supply chain. However given the geographical and product diversification of BAW's supply chain and the number of world class global principals it represents, it is anticipated that these drivers would not result in substantive changes to the overall group supply chain. The</p>	products/services						<p>principals, who have robust risk management processes and contingencies should any of the opportunity drivers materialise. While these would normally result in disruption in supply chains, the geographical and product offering diversification of BAW's supply chain should allow for continuity of supply allowing BAW to leverage its existing products and services in the market.</p>	<p>adapt existing products are part of the relevant product and equipment offering available from principals and therefore included in normal 'cost of sales', which was R49 billion in FY2014.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	group's continued ability to supply a wide range of products in these circumstances could result in a competitive advantage leading to increased demand for existing BAW products/services.								
Other drivers	The following other climate-related development opportunity drivers may also impact Barloworld's customers, albeit to varying degrees: - Reputation - Changing consumer behaviour - Induced changes in human and cultural environments - Fluctuating socio-economic conditions - Increased humanitarian demands Although the potential impact/s for each of these may vary, they will require various products and	Increased demand for existing products/services	3 to 6 years	Indirect (Client)	Likely	Medium	Estimated opportunity up to R35 million.	BAW is continually engaging with customers in order to understand their requirements and provide relevant innovative solutions. In order to address their requirements, BAW partners with principals in the development of new products or the modification of existing products as well as	The costs to develop new products or adapt existing products are part of the relevant product and equipment offering available from principals and therefore included in normal 'cost of sales', which was R49 billion in FY2014.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	services from within BAW's wide range of offerings and therefore present an opportunity to BAW through "Increased demand for existing products/services".							considers opportunities in new industries. BAW represents leading brands and engages with world class principals to provide a wide range of products and flexible solutions for varying applications.	

CC6.1d

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

CC6.1e

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

CC6.1f

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

Further Information

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: CC7. Emissions Methodology

CC7.1

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

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Wed 01 Oct 2008 - Wed 30 Sep 2009	105723
Scope 2	Wed 01 Oct 2008 - Wed 30 Sep 2009	88166

CC7.2

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

Please select the published methodologies that you use

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

CC7.2a

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

CC7.3

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

Gas	Reference
CO2	IPCC Second Assessment Report (SAR - 100 year)

CC7.4

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

Fuel/Material/Energy	Emission Factor	Unit	Reference
Diesel/Gas oil	0.07477	metric tonnes CO2e per GJ	Southern Africa Rest of Africa (DEFRA/DECC/GHG 2010), Rest of Africa (DEFRA/DECC/GHG 2010), United Kingdom (DEFRA/DECC/GHG 2010), Europe (DEFRA/DECC/GHG 2010), Australia (Australia Dept of Climate), North America (eia.doe.gov/cneat/electricity/epa), Middle East & Africa (DEFRA/DECC/GHG 2010)
Motor gasoline	0.07069	metric tonnes CO2e per GJ	Southern Africa Rest of Africa (DEFRA/DECC/GHG 2010), Rest of Africa (DEFRA/DECC/GHG 2010), United Kingdom (DEFRA/DECC/GHG 2010), Europe (DEFRA/DECC/GHG 2010), Australia (Australia Dept of Climate), North America (eia.doe.gov/cneat/electricity/epa), Middle East & Africa (DEFRA/DECC/GHG 2010)
Residual fuel oil	0.06858	metric tonnes CO2e per GJ	Southern Africa Rest of Africa (DEFRA/DECC/GHG 2010), Rest of Africa (DEFRA/DECC/GHG 2010), United Kingdom (DEFRA/DECC/GHG 2010), Europe (DEFRA/DECC/GHG 2010), Australia (Australia Dept of Climate), North America (eia.doe.gov/cneat/electricity/epa), Middle East & Africa (DEFRA/DECC/GHG 2010)
Liquefied Natural Gas (LNG)	0.0639	metric tonnes CO2e per GJ	Southern Africa Rest of Africa (DEFRA/DECC/GHG 2010), Rest of Africa (DEFRA/DECC/GHG 2010), United Kingdom (DEFRA/DECC/GHG 2010), Europe (DEFRA/DECC/GHG 2010), Australia (Australia Dept of Climate), North America (eia.doe.gov/cneat/electricity/epa), Middle East & Africa (DEFRA/DECC/GHG 2010)
Natural gas	0.05710	metric tonnes CO2e per GJ	Southern Africa Rest of Africa (DEFRA/DECC/GHG 2010), Rest of Africa (DEFRA/DECC/GHG 2010), United Kingdom (DEFRA/DECC/GHG 2010), Europe (DEFRA/DECC/GHG 2010), Australia (Australia Dept of Climate), North America (eia.doe.gov/cneat/electricity/epa), Middle East & Africa (DEFRA/DECC/GHG 2010)
Electricity	1.03665	metric tonnes CO2e per MWh	Southern Africa (Eskom (2010 AR))
Electricity	0.738	metric tonnes CO2e per MWh	Rest of Africa (DEFRA/DECC/GHG 2010)
Electricity	0.54284	metric tonnes CO2e per	United Kingdom (DEFRA/DECC/GHG 2010)

Fuel/Material/Energy	Emission Factor	Unit	Reference
Electricity	0.487	MWh metric tonnes CO2e per MWh	Europe (DEFRA/DECC/GHG 2010)
Electricity	0.92	metric tonnes CO2e per MWh	Australia (Australia Dept of Climate)
Electricity	0.57831	metric tonnes CO2e per MWh	North America (eia.doe.gov/cneat/electricity/epa)
Electricity	0.09143	metric tonnes CO2e per MWh	Middle East & Africa (DEFRA/DECC/GHG 2010)

Further Information

Please refer to attachment for full factors. Also worth noting is that all consumption per the various categories of energy sources, with the exception of electricity, are first converted into Gigajoules using the energy conversion factors (as attached), then multiplied by the relevant carbon emissions factor. Electricity (MWh) consumption is multiplied directly by the respective regional carbon emissions factor to give the carbon emissions (tCO2e)

Attachments

[https://www.cdp.net/sites/2015/29/1529/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC7.EmissionsMethodology/barloworld-2014-ghg-conversion-factors.pdf](https://www.cdp.net/sites/2015/29/1529/Climate%20Change%202015/Shared%20Documents/Attachments/ClimateChange2015/CC7.EmissionsMethodology/barloworld-2014-ghg-conversion-factors.pdf)

Page: CC8. Emissions Data - (1 Oct 2013 - 30 Sep 2014)

CC8.1

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

Financial control

CC8.2

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

197541

CC8.3

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

76445

CC8.4

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?

No

CC8.4a

Please 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	Relevance of Scope 1 emissions from this source	Relevance of Scope 2 emissions excluded from this source	Explain why the source is excluded
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CC8.5

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

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	Less than or equal to 2%	Other: Human Error	Scope 1 emissions are independently assured and reporting of emission and underlying energy consumption is monitored, reported at group level and trends are benchmarked quarterly. However, internal audits have identified the risk of capturers at business unit level misinterpreting units of measure and magnitude of billed energy consumption. Consolidations have been automated at a group level which generally eliminates any consolidation errors. Ongoing monthly meetings with divisional sustainability champions also provide a platform to highlight any analytical anomalies that may be identified.
Scope 2	Less than or equal to 2%	Other: Human Error	Scope 2 emissions are also independently assured and checked as per the process adopted for scope 1 emissions. As with scope 1 emissions, internal audits have identified the risk of capturers at business unit level misinterpreting units of measure and magnitude of billed energy consumption. Reporting systems and meetings have been put in place with the objective of eliminating any errors.

CC8.6

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

Third party verification or assurance complete

CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Limited assurance	https://www.cdp.net/sites/2015/29/1529/Climate Change 2015/Shared Documents/Attachments/CC8.6a/Barloworld Integrated-report 2014.pdf	Scope 1 emissions have been assured. Refer page 139 of the Barloworld Integrated Report 2014	ISAE3000	100

CC8.6b

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

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission
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CC8.7

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

Third party verification or assurance complete

CC8.7a

Please provide further details of the verification/assurance undertaken for your Scope 2 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Limited assurance	https://www.cdp.net/sites/2015/29/1529/Climate Change 2015/Shared Documents/Attachments/CC8.7a/Barloworld Integrated-report 2014.pdf	Scope 2 emissions have been assured. Refer page 139 of the Barloworld Integrated Report 2014	ISAE3000	100

CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
Other: Emissions by primary energy source	For the reporting period, the following was also verified: Fuel consumption (ML) (petrol and diesel), Electricity consumption (MWh), Energy consumption (GJ), including Energy consumption by primary source.

CC8.9

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

No

CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Oct 2013 - 30 Sep 2014)

CC9.1

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

Yes

CC9.1a

Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e
Europe	5265
Asia Middle East (AME)	183
Russia	2558
Africa	9021
South Africa	180514

CC9.2

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

By business division

CC9.2a

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

Business division	Scope 1 emissions (metric tonnes CO2e)
Equipment and Handling	31937
Automotive and Logistics	165590
Corporate	14

CC9.2b

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

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
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CC9.2c

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

GHG type	Scope 1 emissions (metric tonnes CO2e)
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CC9.2d

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

Activity	Scope 1 emissions (metric tonnes CO2e)
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CC9.2e

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

Legal structure	Scope 1 emissions (metric tonnes CO2e)
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Further Information

Page: CC10. Scope 2 Emissions Breakdown - (1 Oct 2013 - 30 Sep 2014)

CC10.1

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

Yes

CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted for in CC8.3 (MWh)
Europe	3747	7678	
Asia Middle East (AME)	1579	1727	
Russia	1596	3277	
Africa	3282	4447	
South Africa	66241	63899	

CC10.2

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

By business division

CC10.2a

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

Business division	Scope 2 emissions (metric tonnes CO2e)
Equipment and Handling	25164
Automotive and Logistics	50589
Corporate	692

CC10.2b

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

Facility	Scope 2 emissions (metric tonnes CO2e)

CC10.2c

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

Activity	Scope 2 emissions (metric tonnes CO2e)

CC10.2d

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

Legal structure	Scope 2 emissions (metric tonnes CO2e)
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Further Information

Page: CC11. Energy

CC11.1

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

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

CC11.2

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

Energy type	MWh
Fuel	739260
Electricity	81028
Heat	0
Steam	0
Cooling	0

CC11.3

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

Fuels	MWh
Diesel/Gas oil	643031
Motor gasoline	95448
Liquefied petroleum gas (LPG)	461
Liquefied Natural Gas (LNG)	320

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the Scope 2 figure reported in CC8.3

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comment
No purchases or generation of low carbon electricity, heat, steam or cooling accounted with a low carbon emissions factor		

Further Information

Page: CC12. Emissions Performance

CC12.1

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

Increased

CC12.1a

Please 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

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	0.6	Decrease	Energy and emission efficiency initiatives reported in section CC3.3a accounted for 1 565 tCO ₂ e in FY2014. This has decreased the gross global emissions for FY 2014 by 0.6% ((1565/260422)*100)
Divestment			BAW invested some R6 million in energy and emission reduction activities in the reporting year. Aligned with financial reporting, FY2013 emissions have been restated to take into account the disposal of Motor Retail operations in Australia.
Acquisitions Mergers			
Change in output	4.37	Increase	Using a revenue based 'business as usual' calculation, it is estimated that increased activity levels would have resulted in an increase of approximately 4.37% in scope 1 and 2 emissions. Emissions were expected to increase by 11 380 in FY 2014 over FY2013 levels. ((11380/260422 [2013 S1&S2])*100)
Change in methodology			
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other	1.43	Increase	There is an unaccounted balance of 3 749 tCO ₂ e. This is derived as follows:13 564 (Actual increase in absolute emissions 2014/2013) – 11380 tCO ₂ e (Change in absolute emissions from change in output (revenue increased by 4.37%) + 1 565 tCO ₂ e (emission reduction initiatives) / 260 422 tCO ₂ e]. The disposal of Motor Retail operations in Australia together with the investments made in logistics road transportation businesses, shifts the weighting of the Logistics business within the group and impacts on the group emissions intensities. Therefore while the magnitude of this impact resulting from the shift in weighting cannot be calculated, it is anticipated that it would have largely contributed to this variance through its direct impact on the group emissions intensity.

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

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
0.0000044	metric tonnes CO2e	unit total revenue	0.79	Increase	Absolute emissions increased by 5% in FY2014 over FY2013 and revenue (denominator in the intensity) increased by 4% over the same period, hence the marginal increase in the intensity metric from prior year. Any variation in publically reported intensities is due to the rounding effect given the seven decimal point scale.

CC12.3

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

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
13.97	metric tonnes CO2e	FTE employee	2.80	Increase	Business activity and resulting emission levels in the reporting period increased at a faster rate than the employee complement. Barloworld also strives to increase productivity and activity while maintaining or reducing the staff complement. This will inevitably increase the emissions intensity per FTE.

CC12.4

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

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
0.0160	metric tonnes CO2e	Other: Rental Days	3	Decrease	BAW recognises that emissions from car rental activities are central to its customer offerings and strives to reduce these by providing fuel efficient vehicles in the fleets available for rent. Car rental operations in South Africa produced 93 676 tCO2e (FY2013: 86 462 tCO2e) of scope 3 emissions, which represents an increase of 8% in absolute emissions from FY2013 which below the increase in rental days over the same period. Overall, this represents a 3% improvement in emissions intensity per rental day in FY2014 compared with FY2013 underscoring the efficiency of new technologies and the reduced emissions profile of the rental fleet. Distance travelled per rental day also impacts this intensity measure.

Further Information

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

CC13.1a

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

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership
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CC13.1b

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

CC13.2

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

Yes

CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits cancelled	Purpose, e.g. compliance
Credit Purchase	Landfill gas	Joburg Landfill Gas to Energy Project	VCS (Verified Carbon Standard)	13728	13728	Yes	Voluntary Offsetting

Further Information

CC14.1

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

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, not yet calculated				These emissions principally include those resulting from the combustion of fossil fuels (consumption of energy) by suppliers in the manufacturing process of products purchased by BAW. The group has not yet formally quantified emissions from its supply chain, but it appreciates that these could be significant and is starting to consider carbon reporting and management in the supply chain. BAW would work closely with principals to appropriately evolve this over time. These are not currently being included in reporting.
Capital goods	Relevant, not yet calculated				This refers to emissions associated with the manufacturing of the capital equipment (e.g. rental fleets, trucks) of which BAW divisions use to provide logistical service. This equipment has an extended life so that it is regarded as fixed assets. Emissions from this source have not yet been quantified, but could be significant. BAW is starting to consider carbon reporting and management in upstream and downstream activities. Given the diversified nature of the group, this reporting is

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					relatively complex and would commence with significant suppliers with entrenched sustainability practices and reporting.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, not yet calculated				This refers to emissions associated with the production of electricity and fuels consumed by BAW. This includes emissions such as those associated with the mining of coal to produce electricity that is used by BAW and the refining of liquid fuel used (petrol and diesel). These emissions are not being quantified currently, but it is anticipated that they may be significant.
Upstream transportation and distribution	Relevant, not yet calculated				This includes emissions from the transportation of goods purchased/acquired by BAW, e.g. the transportation of equipment and vehicles from the supplier to BAW's sites. These emissions are not being quantified currently, but it is anticipated that they may be significant. BAW is starting to consider carbon reporting and management in upstream and downstream activities. Given the diversified nature of the group, this reporting is relatively complex and would commence with significant suppliers with entrenched sustainability practices and reporting.
Waste generated in operations	Relevant, not yet calculated				This relates to the emissions generated in the group's waste disposal activities. The group recycled 168 256 kgs of paper and 140 279 kgs of tyres in FY2014. For indicative purposes; recycling of 1 kg of cardboard results in the avoidance of 0.0032 tCO2e.
Business travel	Relevant, calculated	7375	The methodology followed to estimate the emissions involve multiplying activity data for	100.00%	The emissions associated with business travel include those from the combustion of the fuels

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			mode of transport (e.g. km travelled) by an applicable emission factor for that mode of transport (e.g. tCO2e/km). The mode of transport included in the reported figure is limited to business travel using aircraft. The GHG Protocol Corporate Value Chain Accounting and Reporting Standard is used.		consumed in road and air business travel. Currently only business air travel is reported.
Employee commuting	Relevant, not yet calculated				Employee commuting emissions include those associated with the travel of employees between their homes and work from employee-owned vehicles and public transport. These have not been estimated to date.
Upstream leased assets	Relevant, not yet calculated				The group is considering its approach in this regard and will account for these emissions once this is finalised.
Downstream transportation and distribution	Relevant, not yet calculated				This includes emissions from the transportation of goods sold by BAW, e.g. the transportation of equipment and vehicles to customers' sites. These emissions are not being quantified currently, but it is anticipated that they may be significant. BAW is starting to consider carbon reporting and management in upstream and downstream activities. Given the diversified nature of the group, this reporting is relatively complex and would commence with significant suppliers with entrenched sustainability practices and reporting.
Processing of sold products	Relevant, not yet calculated				BAW is a distributor of leading global brands. Accordingly, there is no processing of sold goods.
Use of sold	Relevant,	93767	These emissions are from the combustion of	100.00%	It is in accordance with the concept of product

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
products	calculated		fossil fuels in the use phase of the BAW product. The emissions would be estimated by multiplying an activity data (e.g. either consumption of fuel or km travelled) by an appropriate emission factor. The GHG Protocol Corporate Value Chain Accounting and Reporting Standard is used.		stewardship to report on the emissions of the product use phase. The emissions currently being reported are for sale of Avis Rent a Car's products, namely, vehicle rentals. The reported figure relates to Avis Rent a Car South Africa only.
End of life treatment of sold products	Relevant, not yet calculated				Not undertaken at present. Component Rebuilds extend life of plant and equipment and mitigate emissions associated with building of new equipment and machinery.
Downstream leased assets	Relevant, not yet calculated				This includes emissions from assets leased by BAW to customers, e.g. leased fleet vehicles, equipment and machinery. These emissions are not quantified currently by BAW as the fuel is purchased and used by the client. However, BAW understands that these emissions may be significant and is engaging with suppliers to develop less emissions-intensive technologies. BAW may consider quantifying these emissions at a later stage.
Franchises	Not relevant, explanation provided				The group has a limited number of franchisees through its Avis operations. The emissions from these operations are considered to be negligible against BAW's total group emissions.
Investments	Not relevant, explanation provided				BAW has a number of joint ventures. Data from joint venture operations are not consolidated into financial and non-financial reporting since these are not companies over which BAW exercises financial control. The emissions from these operations are

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					not considered to be significant when compared to BAW's total group emissions.
Other (upstream)					
Other (downstream)					

CC14.2

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

No third party verification or assurance

CC14.2a

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

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of Scope 3 emissions verified (%)

CC14.3

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

Yes

CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Use of sold products	Other: Increase in rental days	9	Increase	The percentage increase in absolute emissions is below the percentage increase in activity levels, underpinned by the efficiency of the fleet. Car rental fleets generally include vehicles under 12 months old fitted with the latest technology, resulting in overall energy and emissions efficiency. Car rental also provides eco-driving tips on hangers in every vehicle.
Business travel	Other: Increased business activity	1.47	Increase	The annual increase in scope 3 emissions from business air travel (from 7 268 tCO ₂ e in FY2013 to 7 375 tCO ₂ e in FY2014) is a reflection of increased business travel and activity. Barloworld operates in 24 countries and while video conferencing facilities are used where possible, air travel is a necessary part of business. The group is continuing to refine this aspect of their reporting.

CC14.4

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

Yes, our suppliers
Yes, our customers

CC14.4a

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

BAW represents and engages with leading international Original Equipment Manufacturers (OEMs) and brands such as Caterpillar, Hyster, Avis, Budget, Audi, BMW, Ford, General Motors, Jaguar Land Rover, Mazda, Mercedes-Benz, Toyota, Volkswagen, Massey Ferguson and others. Relationships throughout the supply chain are guided and prioritised by BAW's governance framework that includes its Code of Ethics, Worldwide Code of Conduct, related policies and commitment to legal compliance. Interactions are also informed and prioritised by the group's strategic framework, including the commitment to being a leader in sustainable development and the identification of competitive advantage through offering customer solutions that assist customers in achieving their sustainable development objectives, facilitate a transition to low carbon economies and expanding into related opportunities. Methods of engagement include dealer, dealer council and licensee meetings; principals' conferences; formal reporting and appropriate information sharing; ongoing informal contact and product launches. BAW engages with all principals on an ongoing basis. The material issues raised during engagements include product issues and innovation; market positioning; financial and other performance review; customer issues and satisfaction; sustainable development and climate change matters; market information and supply chain empowerment. Customers are engaged on an ongoing basis which informs the basis of the group's customer value proposition and integrated solutions. Such engagement includes extensive surveys, personal contact and engagement, site visits and open communication platforms. BAW strives to provide customer solutions that assist customers achieve their own sustainable development objectives including energy and emission efficiency improvements. Success is measured by the outcomes of these engagements. Positive outcomes resulting from engagements include successful relationships with mutual value maximised; leading products, services and customer solutions; retained distribution rights; mitigation of any identified key risks, supply chain optimisation and expanded preferential procurement and empowerment. Stakeholder requirements, commercial sensibility, practicability, organisational sustainability and responsible corporate citizenship are some of the aspects considered in prioritizing engagements.

CC14.4b

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

Number of suppliers	% of total spend	Comment
		The group engages with a number of suppliers on climate change, of which the most significant are its principals. These include Caterpillar, Hyster, Avis, Budget, Audi, BMW, Ford, General Motors, Jaguar Land Rover, Mazda, Mercedes-Benz, Toyota, Volkswagen, Massey Ferguson and others. BAW's principals account for majority of its upstream scope 3 emissions from its value chain. The group's cost of sales, which includes its spend with principals, was some R49bn in the FY2014. BAW has developed strong relationships with its principals which facilitates information sharing about local market conditions and trends, including information on regulatory environments and emission standards, and assists its principals in developing customer solutions that differentiate and expand their product ranges.

CC14.4c

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

How you make use of the data	Please give details
Managing the impact of regulation in the supply chain	BAW represents leading international brands and principals such as Caterpillar, Hyster, Avis, Budget, Audi, BMW, Ford, General Motors, Jaguar Land Rover, Mazda, Mercedes-Benz, Toyota, Volkswagen, Massey Ferguson and others. Their extensive sustainability reporting and engagement with the group informs its risk management and strategic planning processes, and as such it allows for the group to put in place mitigation strategies for material risks, including regulatory risks, in its supply chain.
Managing physical risks in the supply chain	BAW represents leading international brands and principals such as Caterpillar, Hyster, Avis, Budget, Audi, BMW, Ford, General Motors, Jaguar Land Rover, Mazda, Mercedes-Benz, Toyota, Volkswagen, Massey Ferguson and others. Their extensive sustainability reporting and engagement with the group informs its risk management and strategic planning processes, and as such it allows for the group to put in place mitigation strategies for material risks, including physical risks, in its supply chain.
Stimulating innovation of new products	BAW represents leading international brands and principals such as Caterpillar, Hyster, Avis, Budget, Audi, BMW, Ford, General Motors, Jaguar Land Rover, Mazda, Mercedes-Benz, Toyota, Volkswagen, Massey Ferguson and others. These leading companies are responsible corporates, which share BAW's commitment to sustainable development and responsible long term value creation for stakeholders. In doing so, they strive to improve energy and emissions efficiencies for both themselves, their products and customers. BAW collaborates with its principals to provide integrated customer offerings incorporating the latest energy efficient and low emissions technology which mitigates customers' climate change risks, assists them in achieving their environmental stewardship as well as their sustainable development objectives.

CC14.4d

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

Further Information

Module: Sign Off

Page: CC15. Sign Off

CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Christopher Whitaker	Executive: Strategy and Sustainability	Other: Group Executive

Further Information

[CDP 2015 Climate Change 2015 Information Request](#)