

# CDP

## Submission 2008



ANGLOGOLD ASHANTI

## CDP6 Greenhouse Gas Emissions Questionnaire

Respondent: AngloGold Ashanti Ltd

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### General Information

It is not a requirement of the CDP questionnaire to give an introduction to your answer, but if you would like to do so, please give it here in the text box below or attach a document.

AngloGold Ashanti, one of the world's leading gold producers, has a portfolio of long-life, relatively low-cost assets with a variety of orebody types in key gold-producing regions around the world.

AngloGold Ashanti produced 5.5 million ounces of gold in 2007 - an estimated 7% of global production - making it the third largest producer in the world. AngloGold Ashanti has 20 operations located in 10 countries on four continents, together with a substantial project pipeline and a focused, global exploration programme. AngloGold Ashanti currently operates in South Africa, Argentina, Australia, Brazil, Ghana, the Republic of Guinea, Mali, Namibia, Tanzania and the United States. The bulk of its production came from deep level underground operations (40%) and surface operations (3%) in South Africa. Contributions from other countries were Ghana (10%), Mali (8%), Australia (11%), Brazil (7%), Tanzania (6%), USA (5%), Guinea (5%), Argentina (4%) and Namibia (1%).

Headquartered in Johannesburg, South Africa, AngloGold Ashanti's primary listing is on the Johannesburg Stock Exchange (ANG). It is also listed on the following securities exchanges: New York (AU), London (AGD), Australia (AGG) and Ghana (AGA), as well as Euronext Paris (VA) and Euronext Brussels (ANG).

Where available please can you provide the following identification numbers for your primary listings/ordinary shares and information for your company:

Company Turnover (also known as sales) in millions of US\$  
3472

ISIN number  
ZAE000043485

CUSIP number  
035128206

SEDOL number  
3236330



## 1 - Risks and Opportunities

### *Question 1(a)(i) Regulatory Risks*

#### How is your company exposed to regulatory risks related to climate change?

We consider our company to be exposed to regulatory risks because...

AngloGold Ashanti operates mines in ten countries. Of these, only one (Australia) is an Annex I signatory to the Kyoto Protocol, and that only recently. There is not currently climate change-related legislation in any of the countries in which the company operates, but carbon taxes and/or cap-and-trade regimes are being considered in Australia, South Africa and the USA. Of these, Australia is the most advanced, and the government has announced its intention to introduce an emissions trading scheme by 2010. In Brazil, despite no formal regulation on GHG emissions, there is an initiative from the State Environmental Agencies requiring companies to develop their emission budget. This initiative will be part of a strategy for future requirements for environmental licensing renewal.

In an internal white paper and in the company's 2007 Report to Society

(<http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/climate-change.htm>) we identified the following as risks:

- Increased expectations from host governments for corporate involvement in managing the challenges of adaptation to climate change.
- Higher energy costs resulting from carbon taxes imposed by local, state/ provincial or national agencies, as well as increasing fossil fuel and grid electricity costs.
- Reduced production due to imposed emission caps.

#### Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

### *Question 1(a)(ii) Physical Risks*

#### How is your company exposed to physical risks from climate change?

We consider our company to be exposed to physical risks because...

- In an internal white paper and in the company's 2007 Report to Society (<http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/climate-change.htm>), the following physical risks were identified:
- Reduced water availability potentially impacting on processing capacity at some sites.
- More frequent and more intense storm events potentially requiring more costly engineering safeguards for tailings facilities, waste rock dumps and other vulnerable structures.

Rising sea levels are not considered to pose a significant risk as the company does not have operations at coastal locations. Gold concentrates and refined gold are transported by air or road. Some reagents, fuels, equipment and materials are transported by ship, so damage to port infrastructure would impose delays but not pose a significant risk.

#### Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No



### *Question 1(a)(iii) General Risks*

#### How is your company exposed to general risks as a result of climate change?

We consider our company to be exposed to general risks because...

In an internal white paper and in the company's 2007 Report to Society

(<http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/climate-change.htm>), the following general risks were identified:

- Higher insurance premiums. These are likely to be higher if the company is perceived not to be actively addressing its climate risks.
- Increased pressure from neighbouring communities struggling with disease, crop failure and the depletion of natural resources.

In addition, rising demand for "green gold" is seeing consumers and jewellery retailers seeking information on companies' carbon emissions. As "green gold" will have to be traceable, this means that verifiable site-based emissions data is likely to be increasingly required by retailers.

#### Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

### *Question 1(a)(iv) Risk Management*

#### Has your company taken or planned action to manage the general and regulatory risks and/or adapt to the physical risks you have identified?

We have taken or planned action.

As described in our 2007 Report to Society

(<http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/climate-change.htm>), the company is preparing a comprehensive climate change strategy to address the risks. This will position the company to respond to the risks of climate change. The following activities are already under way. Some actions are described later in our submission, e.g. energy consumption and carbon emission targets.

The company engages with government agencies through industry associations (e.g. Minerals Council of Australia, Western Australia Chamber of Minerals and Energy, Instituto Brasileiro de Mineração, Chamber of Mines of South Africa, National Business Initiative (South Africa), Business Unity South Africa, Colorado Association of Commerce and Industry) to advocate regulatory provisions that are not detrimental to business and the mining industry in particular. These associations also keep the company updated on policy and regulatory trends. More detail concerning our engagement on public policy issues is given at 4(d).

Management and mitigation of physical risks of extreme weather events is incorporated into mine plans via emergency planning and storm and flood engineering.

#### Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No



### *Question 1(a)(v) Financial and Business implications*

#### How do you assess the current and/or future financial effects of the risks you have identified and how those risks might affect your business?

We assess current and/or future financial effects by...

As we say in our 2007 Report to Society

(<http://www.anglogoldashanti.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/p/eg/review.htm>):

The assessment, mitigation and management of risk is an integral part of the management of safety, health, environment and community issues. The Board, which has ultimate responsibility for the total risk management process, reviews and approves the risk strategy and policies that are formulated by the executive directors and senior management. Management is then accountable to the Board and has established a group-wide system of internal control to manage significant group risk.

A full review of risk, control and disclosure is undertaken twice a year and considers key findings from ongoing monitoring and reporting, management assertions and independent assurance reports. This is then reported to the management committee, the executive committee and the Board Audit and Corporate Governance Committee. In line with our adoption of the International Council on Mining and Metals (ICMM) Sustainable Development Principles and Framework, we implement sound risk assessment using science-based data and methodologies.

Independent risk assurance processes are undertaken in many corporate functions, including safety and health, environment, community relations and mineral resource management. The corporate technical team also covers critical risk areas such as the potential for tailings storage facility and slip wall failure.

The Board is informed and takes account of material changes and trends in the group's risk profile. A full discussion on the risk management process and some of the risks that could materially affect AngloGold Ashanti may be found in the Annual Financial Statements 2007

([http://www.anglogoldashanti.co.za/subwebs/InformationForInvestors/Reports07/AnnualReport07/leadership/risk\\_management.htm](http://www.anglogoldashanti.co.za/subwebs/InformationForInvestors/Reports07/AnnualReport07/leadership/risk_management.htm)).

At the site level, operations focus attention on the efficiency of environmental resource usage, such as water and energy (including electricity and other fossil fuels). Managing water and energy is the most relevant with respect to climate change in AngloGold Ashanti's context. The objectives and targets of the water and energy strategies are thus set within a site specific context and are generally driven by an optimization approach, supported by the co-objective of cost minimization. These objectives and targets are reviewed annually as part of the annual budgeting and mine planning process and by internal corporate technical reviews.

#### Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

### *Question 1(b)(i) Regulatory Opportunities*

#### How do current or anticipated regulatory requirements on climate change offer opportunities for your company?

We consider that current or anticipated regulatory requirements offer opportunities because...

In an internal white paper and in the company's 2007 Report to Society

(<http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/climate-change.htm>),

the following regulatory opportunities were identified:

- Emissions trading projects that provide potential investment and income for projects that also reduce our operating costs and greenhouse gas footprint.
- Exploiting research and development tax rebates where they exist by undertaking or supporting renewable energy and energy efficiency projects.



Carbon trading presents a particular opportunity to the company. 84% of the company's gold production comes from developing countries. Pending regulatory requirements for carbon trading in Australia, and existing requirements in Europe present opportunities for carbon trading both internally and externally. It will be cheaper (by avoiding intermediaries and their costs) to trade verified credits within the company. In addition, there are opportunities to sell credits to companies based in Europe and elsewhere. In an internal white paper and in the company's 2007 Report to Society (<http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/climate-change.htm>), we said the following in regard to carbon trading:

"A specific area of interest to the company, which hosts many operations in developing countries, is the potential for emissions trading. Various GHG reduction and trading systems have been developed to enable companies to achieve a portion of their GHG reduction obligations through investing in projects that result in the global reduction of greenhouse gases. The South American operations are currently actively looking at specific opportunities.

"While the company has in recent years looked into several possible CDM projects, these were not deemed to be viable for a range of reasons. Part of the CEO's brief to staff has been the directive to reassess CDM opportunities.

"An initial assessment of potential projects includes those associated with:

- Switching to more energy efficient technologies in operations
- Reforestation and off-minesite revegetation
- Fuel switching
- Fuel management systems
- Biomass co-generation
- Renewable energy
- Sequestration of carbon dioxide in closed underground mines."

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

#### *Question 1(b)(ii) Physical Opportunities*

How do current or anticipated physical changes resulting from climate change present opportunities for your company?

We consider that current or anticipated physical changes offer opportunities because...

As most of our operations are in tropical or sub-tropical locations, there are very few anticipated physical opportunities from climate change. Lower heating costs at our two operations at high latitude may present an opportunity.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

#### *Question 1(b)(iii) General Opportunities*

How does climate change present general opportunities for your company?

We consider that climate change offers opportunities because...

Increased demand for uranium as a substitute for carbon-based electricity generation presents a further opportunity. Uranium is a by-product of some of AngloGold Ashanti's South African operations. In an internal white paper and in the company's 2007 Report to Society (<http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/climate-change.htm>), the following general opportunities were identified:



- Realised cost savings from energy switching and efficiency projects.
- Enhanced relationships with key stakeholders as we develop grass-roots adaptation projects.
- Working with host governments and industry to develop wide-ranging adaptive capacities and technology changes.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

*Question 1(b)(iv) Maximizing Opportunities*

Do you invest in, or have plans to invest in products and services that are designed to minimize or adapt to the effects of climate change?

Climate change has led to investment or planned investment in order to maximise climate change opportunities.

In an internal white paper and in the company's 2007 Report to Society

(<http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/climate-change.htm>),

the following opportunity was identified:

- Large-scale projects that address national and company energy security through investments in renewable energy and provide long-term carbon trading opportunities.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

*Question 1(b)(v) Financial and Business Implications*

How do you assess the current and/or future financial effects of the opportunities you have identified and how those opportunities might affect your business?

We assess current and/or future financial effects by...

Carbon trading opportunities are assessed as they are identified. An example is the replacement of pneumatic with electric drills in South Africa. A carbon footprint exercise is planned for the latter half of 2008. Part of the brief to the consultants is a requirement to identify opportunities from:

- Energy saving;
- Improving energy efficiency;
- Improving carbon efficiency; and
- Carbon trading.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No



## 2 - Greenhouse Gas (GHG) Emissions Accounting

### Question 2(a)(i) Reporting Boundary

Calculation tools that will assist companies in calculating GHG emissions from particular activities, such as the combustion of fuels, production processes, etc can be found at: <http://www.ghgprotocol.org/calculation-tools/all-tools>. Companies new to emissions reporting are strongly recommended to use these tools to assist them in their calculations. If you have used a calculation tool, please list it under the question on methodologies.

Please indicate the category that best describes the company, entities or group for which your response is prepared:

Companies over which operational control is exercised.

### Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

### *Question 2(a)(ii) Reporting Year*

#### Please explicitly state the dates of the accounting year or period for which GHG emissions are reported.

Start date: 01 January 2007

End date: 31 December 2007

Financial accounting year: 01 January 2007

### Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

### *Question 2(a)(iii) Methodology*

#### Please specify the methodology used by your company to calculate GHG emissions.

Please select the methodology that you have used using the radio buttons.

If you have used the GHG Protocol or ISO 14064-1, please also give references to any calculation tools that you have used or an explanation of any calculation methods that you have devised yourself. Please explain the data sources of the Global Warming Potentials and emission factors used in your calculations. If you cannot find a reference for them within a supplied calculation tool, please contact the provider of the calculation tool for the information.

If you have used a methodology that you have devised yourself, please would you explain your methodology, including methods of calculation, and the data sources of the Global Warming Potentials and emission factors.

GHG Protocol

**Specific tools used were :**

1. Indirect CO<sub>2</sub> Emissions from the Consumption of Purchased Electricity, Heat, and/ or Steam Calculation worksheets (January 2007) 1.2 (note: March 2008 update version 2 was not available at the time of calculation).
2. Conversion factors and General References from Mobile Combustion CO<sub>2</sub> Emissions Calculation Tool. June 2003.





## Version 1.2

The methodology applied has been to calculate the mass of CO<sub>2</sub>-e generated from the direct consumption of all fossil fuels, including diesel, LPG, Natural gas, gasoline, coal, the combustion of lubricant oil and from refrigerant leaks, and also from the indirect consumption of electricity from national grids in the countries of operation. Where current CO<sub>2</sub>-e factors are unavailable from electrical utilities, the indirect CO<sub>2</sub>-e emissions have been calculated using factors published in the WRI-WBCSD GHG Protocol Initiative tools.

In the case of Scope 1 emissions, only CO<sub>2</sub>-e emissions for CO<sub>2</sub>, HFCs, HCFCs and CFCs have been calculated. CO<sub>2</sub>-e emissions from methane, nitrous oxide, perfluorocarbons and sulphur hexafluoride have not been assessed as these are believed to either be immaterial in quantity or not applicable to the activities of the company. The determination of a detailed carbon footprint for the company during 2008 will confirm this.

In the case of Scope 1 Emissions, all energy consumed on site, including that which is consumed by onsite externally owned contractors, e.g. transportation and mining fleets (normally reported under Scope 3) is included in the GHG data provided. This information has been combined on the principle that those activities are intrinsic to the gold recovery process.

Emissions of HCFCs and CFCs were included as they have significant GWPs, even though they are not part of the UNFCCC.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

To date, AngloGold Ashanti's GHG accounting has been based on calculating CO<sub>2</sub>-e emissions based fuel use, electricity purchases and refrigerant leakages. In order to comprehensively quantify the company's GHG emissions, operations within the group have been tasked with undertaking a detailed baseline carbon footprint analysis by the end of 2008. During the footprinting exercise, Scope 3 emissions will primarily be focused on emissions from business travel.

In our 2006 and 2007 sustainability reports, we used the published average Eskom CO<sub>2</sub>kg/kWh emission factors, 0.978 and 0.958 kg, respectively, for comparability purposes. In CDP6, the indirect emissions from Eskom were determined using an emission factor of 1.2 CO<sub>2</sub>kg/kWh, calculated in accordance with the clean development mechanism (CDM) approved consolidated methodology 0002.

Published 2007 emissions factors for Aquila Power (USA) have been used.

*Question 2(b)(i) Scope 1 and Scope 2 of GHG Protocol*

Are you able to provide a breakdown of your direct and indirect emissions under Scopes 1 and 2 of the GHG Protocol and to analyse your electricity consumption?

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

*Question 2(b)(i)(y) Scope 1 and Scope 2 of GHG Protocol - Year 1 answers*

Please enter the dates for the reporting period that you specified in (answer to question 2(a)(i)) , and then answer the questions for that period. By selecting the "Add Additional Year Figures" button at the end of this webpage, you can repeat the process for the previous reporting period, and then for the reporting period before that, and so on. If possible, please give data going back to the reporting period ending in 2004. You do not have to enter historical data if you have already reported this information in response to previous CDP questionnaires.



Please enter the accounting year used to report GHG emissions details below.

Start date: 01 January 2007

End date: 31 December 2007

Scope 1 Direct GHG Emissions: Please provide:

a. Total global Scope 1 activity in Metric Tonnes CO<sub>2</sub>-e emitted.

1182197 CO<sub>2</sub>e metric tonnes

b. Total Scope 1 activity in Metric Tonnes CO<sub>2</sub>-e emitted for Annex B countries.

236580 CO<sub>2</sub>e metric tonnes

By country - Scope 1 activity in metric tonnes of CO<sub>2</sub>-e by individual country

Using the same methodology please state your emissions per country. NB : If it is not practical for you to list emissions on a full country by country basis, please list here countries with significant emissions in the context of your business and combine the remainder under "rest of world". If you already have this information in another format (e.g Excel) please attach it.

Country	Scope 1 Emissions (metric tonnes CO <sub>2</sub> -e)
South Africa	73195
Ghana	116613
USA	90326
Namibia	12077
Argentina	38559
Australia	146254
Brazil	16846
Guinea	129653
Mali	305841
United Republic of Tanzania	252834

Scope 2 - Indirect GHG emissions: Please provide:

c. Total global Scope 2 activity in metric tonnes CO<sub>2</sub>-e emitted

4260363 CO<sub>2</sub>e metric tonnes

d. Total Scope 2 activity in metric tonnes CO<sub>2</sub>-e emitted for Annex B countries

61814 CO<sub>2</sub>e metric tonnes



By country - Scope 2 activity in metric tonnes of CO2-e by individual country

<b>Country</b>	<b>Scope 2 Emissions (metric tonnes CO2- e)</b>
South Africa	4152052
Ghana	45308
USA	61814
Namibia	1190

Electricity consumption

e. Total global MWh of purchased electricity

4216312 MWh

f. Total MWh of purchased electricity for Annex B countries

64122 MWh

By country – MWh of purchased electricity by individual country.

<b>Country</b>	
South Africa	3460043
Brazil	106024
Ghana	542485
Namibia	43637
USA	64122

g. Total global MWh of purchased electricity from renewable sources

785983 MWh

h. Total MWh of purchased electricity from renewable sources for Annex B countries

5130 MWh

By country – MWh of purchased electricity from renewable sources by individual country.

<b>Country</b>	
South Africa	208023
Brazil	106024
Ghana	449860
Namibia	16946
USA	5130



Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

The Scope 1 emissions include HCFCs and CFCs, even though these are not part of the UNFCCC, as they have significant GWPs. However, their contribution to the company's emissions is insignificant and has therefore not been reported separately.

Accurately calculating the MWh of purchased electricity that was generated from renewable resources was hampered due to a lack of published energy mix information by the electrical utilities used. Consequently, the percentage of renewable energy provided by utilities was calculated using the most recent published electricity generation and purchase data for these utilities, as well as using assumptions based on the capacity and types of generating facilities operated by each electricity provider.

The company generated and consumed an additional 134258 MWh of electricity from renewable sources in Brazil. It is not clear where this information should be included in the questionnaire as we are not an electricity utility.

Question 2(b)(ii) Scopes 1 and 2 of GHG Protocol

If you are unable to detail your Scope 1 and Scope 2 GHG emissions and/or electricity consumption, please report the GHG emissions you are able to identify together with a description of those emissions. If you have answered 2(b)(i), please go to question 2(c)(i).

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

Question 2(c)(i) Other Emissions – Scope 3 of GHG Protocol

How do you identify and/or measure Scope 3 emissions?

See comments in methodology 2a(iii) related to including some Scope 3 emissions within Scope 1 data and comments in the same section regarding the establishment of a comprehensive carbon footprint for the company during 2008.

Please provide where possible:

a. Details of the most significant Scope 3 sources for your company.

The significant Scope 3 emissions are still being assessed.

b. Details in metric tonnes CO<sub>2</sub>-e of GHG emissions in the following categories:

- I. Employee business travel.
- II. Use/disposal of company's products and services.
- III. Company supply chain.

c. Details of the methodology you use to quantify or estimate Scope 3 emissions.

A methodology to calculate Scope 3 Emissions will be developed as an outcome of the Carbon Footprinting exercise during 2008.



Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

Apart from the outsourced activities that are included under Scope 1 reporting (see 2a(iii)), it is estimated that employee business travel constitutes a large Scope 3 emission. A detailed assessment has however not yet been conducted and quantitative data is not available.

Question 2(d) External Verification

- (i) Has the information reported in response to Questions 2(b)- (c) been externally verified or audited or do you plan to have the information verified or audited?

Yes (Please go to 2(d)(ii))

- (ii) If your answer to question 2d(i) is Yes, please provide or attach a copy of the audit or verification statement or state your plans for verification.

Online verification statement is attached.

- (iii) Please specify the standard or protocol against which the information has been audited or verified.

Assurance was performed in accordance with the International Standards for Assurance Engagements 3000, "Assurance Engagements other than audits or reviews of historical financial information" (ISAE 3000), issued by the International Auditing and Assurance Standards Board.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

[attachedfiles/Responses/42424/2511/Assurance.pdf](#)

Question 2(e) Data Accuracy

Does your company have a system in place to assess the accuracy of GHG emissions inventory calculation methods, data processes and other systems relating to GHG measurement? If so, please provide details. If not, please explain how data accuracy is managed.

No, we don't have a system.

The calculation of GHG emissions is currently performed centrally at the company's corporate office. Input data regarding energy usage is collated from the operations electronically at year-end as part of the sustainability reporting process. This input data undergoes a process of verification and checking to ensure consistency and accuracy. It is then processed centrally using WRI/WBCSD GHG Initiative tools, conversion factors and published electrical utility emission factors. The data collation and processing activities are subject to an external assurance process which takes the form of random input data checks and comprehensive data processing verification.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

Question 2(f) Emissions History

Do the emissions reported for your last accounting year vary significantly compared to previous years? If so, please explain reasons for the variations.

Yes, they do vary significantly.



The 2006 and 2007 data reported to the CDP vary markedly. This is because a more exhaustive list of energy sources has been included in the 2007 submission. However, when the corrected emissions are compared, the variations between 2006 and 2007 are negligible.

See the restated 2006 and 2007 GHG emissions data from our sustainability report in the attachment.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

As explained earlier in 2a(iii), a different factor for determining Scope 2 Emissions from ESKOM in South Africa was used in the CDP6 submission as compared to the 2007 sustainability report.

[attachedfiles/Responses/42424/2560/Sustainability\\_reporting2006\\_and\\_2007\\_GHG.pdf](#)

*Question 2(g) Emissions Trading*

j) Does your company have facilities covered by the EU Emissions Trading Scheme?

No, we do not. (Please go to question 2(g)(ii) below)

If so:

a) Please provide details of the annual allowances awarded to your company in Phase I for each of the years from 1 January 2005 to 31 December 2007 and details of allowances allocated for Phase II commencing on 1 January 2008.

In all cases, please enter whole numbers without punctuation, For example, enter 2000 instead of 2,000.

Please enter allowance in Metric Tonnes of CO<sub>2</sub>:

1 January 2005-31 December 2005

1 January 2006-31 December 2006

1 January 2007-31 December 2007

b) Please provide details of actual annual emissions from facilities covered by the EU ETS with effect from 1 January 2005.

Please enter emissions in Metric Tonnes of CO<sub>2</sub>.

1 January 2005-31 December 2005

1 January 2006-31 December 2006

1 January 2007-31 December 2007

**Phase II annual allowances**

1 January 2008 – 31 December 2008

1 January 2009 – 31 December 2009



1 January 2010 – 31 December 2010

1 January 2011 – 31 December 2011

1 January 2012 – 31 December 2012

**c) What has been the impact on your company's profitability of the EU ETS?**

ii) What is your company's strategy for trading or participating in regional and/or international trading schemes (eg: EU ETS, RGGI, CCX) and Kyoto mechanisms such as CDM and JI projects? Explain your involvement for each of the following:

EU ETS

AngloGold Ashanti does not have any operations within the European Union.

CDM/JI

Carbon trading under the CDM mechanism presents an opportunity to the company. 84% of the company's gold production comes from developing countries. Pending regulatory requirements for carbon trading in Australia, presents opportunities for carbon trading. It should be cheaper (by avoiding intermediaries and their costs) to trade verified credits within the company.

CCX

Currently, AngloGold Ashanti has no strategy for trading within the Chicago Climate Exchange.

RGGI

Currently, AngloGold Ashanti has no strategy for trading within the Regional Greenhouse Gas initiative.

Others

Note comments in 1b(i), regarding the expected future establishment of a trading scheme in Australia.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

**Question 2(h) Energy Costs**

i) Please identify the total costs in US \$ of your energy consumption eg from fossil fuels and electric power.

If you want to enter a number less than 1, please ensure you use a decimal point (e.g. 0.3) and NOT a comma (e.g. 0,3)

486800000 US\$

ii) What percentage of your total operating costs does this represent?

18.47 %



iii) What percentage of energy costs are incurred on energy from renewable sources?

8.22 %

More details

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

3 - Performance

*Question 3(a) Reduction Plans*

- i) Does your company have a GHG emissions reduction plan in place? If so, please provide details along with the information requested below. If there is currently no plan in place, please explain why.

Yes, we have a reduction plan in place. (Please proceed to part (ii) )

*ii) What is the baseline year for the emissions reduction plan?*

2007

If you want to give further information or describe a rolling target, please do so here.

A particular challenge that the mining industry faces in achieving emissions reductions is that, as mining proceeds at a site, the ore body being accessed becomes less accessible. Thus, longer haul roads, increased lifting distances and more distant stopes are unavoidable. Each of these results in greater consumption of electricity and fuels and thus emissions. In addition, ore bodies differ significantly from site to site, in terms of their configuration, geochemical nature, depth, etc. Though some generic approaches can be followed, emissions must be reduced on a site by site basis.

The company's focus until now has been on energy efficiency rather than GHG emissions reduction. However, as the company is a significant consumer of electricity, and as the emissions factor in South African electricity supplies, where our highest consumption is found, is very high, reductions in energy consumption have a significant impact on emissions.

In an internal white paper and in the company's 2007 Report to Society (<http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/climate-change.htm>), we said the following in regard to energy consumption and efficiency: Through the National Business Initiative, the South African operations committed to an Energy Efficiency Accord with government in 2005. Former CEO, Bobby Godsell signed on behalf of AngloGold Ashanti and Business Unity South Africa. (AngloGold Ashanti's role and contribution to the National Energy Efficiency Accord is described at <http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/energy-accord.htm>).

In Australia, the company participates in the "Greenhouse Challenge Plus" programme that requires public reporting of emissions, as well as short-term and long-term greenhouse performance goals. Also in Australia, the company was registered in March 2007 onto the Australian government's "Energy Efficiency Opportunities" programme. This programme requires corporations to report publicly on the results of their energy efficiency assessments and the opportunities that exist for projects with a financial payback of up to four years. The focus is on the energy savings opportunities identified in the assessment and the business response to those opportunities. The EEO program does not however set emissions targets.





### iii) What are the emissions reduction targets and over what period do those targets extend?

As we reported in the company's 2007 Report to Society (<http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/climate-change.htm>), in December 2007, the company's CEO set a short- to medium-term target for the company of reducing energy consumption by 15% per ounce of gold produced and a medium- to longer-term target of reducing greenhouse gas emissions (GHGs) by 30% per ounce produced. We have not yet defined "medium term" and "longer term", but the strategy exercise mentioned above includes more precise definition of emissions targets.

The headline commitment in terms of the South African Energy Efficiency Accord in 2005 was to reduce energy consumption by 12% by 2015. This was achieved by 2007. Following an energy crisis in South Africa in January 2008, we have set ourselves an additional target of reducing our electricity consumption in South Africa by a further 4.5% by the end of 2008. Given the energy mix in South Africa (90% from coal) and the losses that result from long distribution networks, such improvements have a significant impact on the company's indirect emissions.

### iv) What activities are you undertaking to reduce your emissions eg: renewable energy, energy efficiency, process modifications, offsets, sequestration etc? What targets have you set for each and over what timescales do they extend?

As we reported in the company's 2007 Report to Society (<http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/climate-change.htm>), the company's South African operations have achieved significant improvements in energy consumption and efficiency – a 17% improvement since 2004 (as stated previously, electricity consumption reductions lead to a proportionate reduction in emissions). A power crisis in early 2008 has increased the incentive to improve these efficiencies further. A significant proportion of the work has been verified and paid for by the electricity utility, Eskom, under its demand side management programme, as these improvements assist the national utility in optimising its systems. Completed and planned activities include (for detailed information, go to <http://www.anglogoldashanti.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/energy-accord.htm>):

- energy efficiency projects, including heat recovery, use of a three pipe chamber system to pump water, replacing incandescent with compact fluorescent lights, and replacing cap lamp bulbs with LEDs;
- peak dipping, by switching off compressors when they are not needed; and
- load shifting, by scheduling activities to take place during low demand periods; a case study may be found at <http://www.anglogold.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/energy-mponeng.htm>.

We are switching from diesel-powered electricity to liquefied natural gas at a remote site in Australia - see <http://www.anglogoldashanti.co.za/subwebs/InformationForInvestors/ReportToSociety06/LNG-SDGM.htm>.

We have completed some small-scale wind power projects (see hyperlinks for detailed information) in: Australia, which won an award

(<http://www.anglogoldashanti.co.za/subwebs/InformationForInvestors/Reports07/ReportToSociety07/gecko-Award.htm> and <http://www.anglogoldashanti.co.za/subwebs/InformationForInvestors/ReportToSociety06/SDGM-windpower.htm>);

and the USA

(<http://www.anglogoldashanti.co.za/subwebs/InformationForInvestors/ReportToSociety06/CC&V-windpower.htm>).

We have also investigated using hydropower in Brazil - see

<http://www.anglogoldashanti.co.za/subwebs/InformationForInvestors/ReportToSociety06/hydro-electric.htm>.

Other than the energy efficiency targets mentioned previously, targets have not been set in the areas mentioned. Our approach is rather to set a high-level target and allow flexibility as to the mechanism by which that is achieved.

### v) What investment has been or will be required to achieve the targets and over what time period?

The required investment has not yet been determined. The climate change strategy described elsewhere includes a component to cost and provide funds for implementing the strategy.



**vi) What emissions reductions and associated costs or savings have been achieved to date as a result of the plan?**

As described above, energy consumption at our South African operations has been reduced by 17% since 2004. We are close to achieving an additional 4.5% reduction in South Africa since January 2008.

**Would you like to provide any additional information relating to this question that you have not provided elsewhere?**

No

**Question 3(b) Emissions Intensity**

**i) What is the most appropriate measurement of emissions intensity for your company?**

Other

We currently use metric tonnes of CO<sub>2</sub>-e emissions per ounce of gold produced.

This metric is practical for annual comparisons of performance at the aggregated group level. Given the significant variability that exists between ore bodies and the energy profiles of surface and underground mining operations at different stages of their lives across AngloGold Ashanti's operations worldwide, no single measurement is universally applicable for benchmarking purposes. AngloGold Ashanti will continue to evaluate emissions performance metrics. Other measures, such as kg CO<sub>2</sub>e/ton rock moved (waste and ore), may provide a better comparison of open pit and underground mines. The mining and metals industry, through the ICMM (International Council on Mining & Metals) of which AngloGold Ashanti is a member, has started a project to devise an appropriate emissions intensity metric for the industry.

Please give your company's emissions intensity figure for the measurement given above.

If you want to enter a number less than 1, please ensure you use a decimal point (e.g. 0.3) and NOT a comma (e.g. 0,3)

0.86

**ii) Please state your GHG emissions intensity in terms of total tonnes of CO<sub>2</sub>-e reported under Scope 1 and Scope 2 per US \$m turnover and EBITDA for the reporting year.**

Scope 1/ US\$millions turnover

340

Scope 2/ US\$millions turnover

1227

Scope 1/ EBITDA

966

Scope 2/ EBITDA

3481

**iii) Has your company developed emissions intensity targets?**

No, we have not developed emission intensity targets for the following reason(s):

AngloGold Ashanti has developed an energy intensity target, but not yet a GHG emissions intensity target. Emissions intensity targets will however be developed during the rollout of the climate change strategy, currently being developed for the company.



a) If the answer to part (iii) above is yes, please state your emissions intensity targets

b) If the answer to part (iii) above is yes, please state what reductions in emissions intensity have been achieved against targets and over what time period.

**Would you like to provide any additional information relating to this question that you have not provided elsewhere?**

Yes

Note that the emissions intensity for 2007 reported to CDP6 (0.86 tonnes of CO<sub>2</sub>-e/Oz) and that reported in the company 2007 sustainability report (0.73 tonnes of CO<sub>2</sub>-e/Oz) are different. This is due a different Eskom CO<sub>2</sub>-e emission factor being used in the CDP6 submission.

Note too that the emissions intensity reported in CDP6 for 2006 was for direct emissions only and excluded the indirect emissions of our energy use. In CDP6 we have changed our efficiency measure to reflect total emissions (direct + indirect emissions) as a function of ounces produced, and our emissions intensity has changed accordingly.

***Question 3(c) Planning***

**Do you forecast your company's future emissions and/or energy use?**

Yes, we do. (Please answer questions (i) to (iii) below.)

***i) Please provide details of those forecasts, summarize the methodology used and the assumptions made.***

If you are able to give quantified forecasts of Scope 1 and Scope 2 emissions and/or electricity consumption, you can enter numerical data on the next page.

Each business unit forecasts its annual energy requirements based on past consumption and future plans as part of a detailed business planning process. We do not forecast emissions.

***ii) How do you factor the cost of future emissions into capital expenditure planning?***

The carbon implications of all capital projects that require approval through AngloGold Ashanti's Investment Committee are estimated and included in the committee's decision-making process. These development projects are typically outside Annex B countries.

***iii) How have these considerations made an impact on your investment decisions?***

They have not yet made any impacts. However, planning for a new operation being developed at a remote site in Australia have carbon emissions as a principal component in the evaluation process.

**Would you like to provide any additional information relating to this question that you have not provided elsewhere?**

No



### Question 3(c) (i) Planning - Forecasted emissions/electricity use - Year 1 answers

This page gives you the opportunity to give numerical forecasts for emissions and electricity use. If possible, please provide emissions forecasts for the next five reporting periods. Use the "Add additional year figures" button at the end of the page to enter emission forecasts for successive reporting periods. Note: Please enter whole numbers without punctuation. For example, use 2000 instead of 2,000

Please enter the accounting period used to report GHG emissions details below.

Start date: 01 January 2008

End date: 31 December 2008

Forecasted Scope 1 Direct GHG Emissions: Please provide:

- a. Forecasted Total global Scope 1 emissions in Metric Tonnes CO<sub>2</sub>-e.
- b. Forecasted Total Scope 1 emissions in Metric Tonnes CO<sub>2</sub>-e for Annex B countries.

By country - Forecasted Scope 1 emissions in Metric Tonnes of CO<sub>2</sub>-e by individual country

Using the same methodology please state your emissions forecasts per country. NB : If it is not practical for you to list emissions on a full country by country basis, please list here countries with significant emissions in the context of your business and combine the remainder under "rest of world". If you already have this information in another format (e.g Excel) please attach it.

**Country** **Scope 1 Emissions**  
(metric tonnes CO<sub>2</sub>-e)

Scope 2 Indirect GHG emissions: Please provide:

- c. Forecasted total global Scope 2 emissions in Metric Tonnes CO<sub>2</sub>-e
- d. Forecasted total Scope 2 emissions in Metric Tonnes CO<sub>2</sub>-e for Annex B countries

By country - Forecasted Scope 2 emissions in Metric Tonnes of CO<sub>2</sub>-e by individual country

**Country** **Scope 2 Emissions**  
(metric tonnes CO<sub>2</sub>-e)

Forecasted electricity consumption

- e. Forecasted total global MWh of purchased electricity
- f. Forecasted total MWh of purchased electricity for Annex B countries  
64122 MWh

By country – Forecasted MWh of purchased electricity by individual country.



### Country

Namibia	48776
South Africa	3392138
USA	64122
Brazil	130900
Ghana	574953

g. Forecasted total global MWh of purchased electricity from renewable sources  
835696 MWh

h. Forecasted total MWh of purchased electricity from renewable sources for Annex B countries  
5130 MWh

By country – Forecasted MWh of purchased electricity from renewable sources by individual country.

### Country

South Africa	203940
Namibia	18942
USA	5130
Brazil	130900
Ghana	476784

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

4 - Governance

Question 4(a) Responsibility

Does a Board Committee or other executive body have overall responsibility for climate change? If not, please state how overall responsibility for climate change is managed. If so, please answer parts (i) and (ii) below.

Yes, an executive body does have overall responsibility for climate change.

#### **i) Which Board Committee or executive body has overall responsibility for climate change?**

An Executive Vice President Business Sustainability is responsible for Environment, Community, Health, Safety, and Corporate Affairs, amongst others, across the group. A Vice President Environment and Community Affairs reports to him. Both mandates include responsibility for the development and implementation of the group climate change strategy.

A Board Committee on Safety, Health and Sustainable Development has oversight of environmental policy and strategy.

The board mandate regarding climate change will be discussed at an upcoming board committee meeting.

The company's risk management processes are managed at a group level but input is provided from technical specialists in the respective management teams. The company's risk profile includes aspects related to climate change and the group climate change strategy also includes a high-level overview of the risks that may affect the company.



ii) What is the mechanism by which the Board or other executive body reviews the company's progress and status regarding climate change?

The Executive Vice President Business Sustainability, along with the CEO and other members of the leadership team have played an integral role in the championing and development of the company's strategy on climate change. Progress is reviewed on a regular basis at management meetings.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

Question 4(b) Individual Performance

Do you assess or provide incentive mechanisms for individual management of climate change issues including attainment of GHG targets? If so, please provide details.

No, we do not.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

Implementation of the company's climate change strategy is still in its infancy. The company will consider providing incentive mechanisms for individual management of climate change issues in the future.

Question 4(c) Communications

Please indicate whether you publish information about the risks and opportunities presented to your company by climate change, details of your GHG emissions and plans to reduce emissions through any of the following communications:

**i) the company's Annual Report or other statutory filings**

Yes

We report as follows in our 2007 annual financial statements

(<http://www.anglogoldashanti.co.za/subwebs/InformationForInvestors/Reports07/AnnualReport07/review/employer.htm>) and in our US SEC 20F submission ([http://www.sec.gov/Archives/edgar/data/1067428/000120561308000079/aga\\_20f.pdf](http://www.sec.gov/Archives/edgar/data/1067428/000120561308000079/aga_20f.pdf)):

In addition to participating in the global debate on climate change and its potential impacts, AngloGold Ashanti has considered its position, evaluating both risks and opportunities in respect of climate change, and embarking on a process of establishing its carbon footprint. In 2007, AngloGold Ashanti participated in the global Carbon Disclosure Project's, survey of the top 40 companies listed on the JSE. CDP is a global institutional investor collaboration intent on understanding and quantifying climate change implications for business. AngloGold Ashanti's response may be found at [www.cdproject.net](http://www.cdproject.net).

**ii) formal communications with shareholders or external parties**

Yes

Disclosure on the company's response to climate change is made in our annual Report to Society. Specific and more detailed issues related to risk and impact mitigation will be included in reporting as the implementation of our strategy progresses. The company's latest report includes a case study on climate change, and cites a high-level risk and opportunities overview (<http://www.anglogoldashanti.com/subwebs/InformationForInvestors/Reports07/ReportToSociety07/climate-change.htm>).

The company is a signatory to the Global Compact and the Report to Society is developed in accordance with the Global Reporting initiative. The company's GRI A+ status has been externally verified by PricewaterhouseCooper's sustainability assurance team.



### iii) voluntary communications such as Corporate Social Responsibility reporting

Yes

See the answer to the previous question.

### Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

### *Question 4(d) Public Policy*

#### Do you engage with policymakers on possible responses to climate change including taxation, regulation and carbon trading? If so, please provide details.

Yes

The company has assigned two managers at the corporate level to facilitate the development of the group's response to climate change. The team is suitably qualified to address climate change mitigation and adaptation issues and have formal academic training at a post-graduate level.

Internal policy development is discussed at regular intervals with executive management.

The company engages on climate change policy at public forums throughout its operations. We engage with government agencies directly and through industry associations (e.g. Minerals Council of Australia, Western Australia Chamber of Minerals and Energy, Instituto Brasileiro de Mineração, National Business Initiative (South Africa), Chamber of Mines of South Africa, Business Unity South Africa, National Mining Association (USA)) to advocate regulatory provisions that are not detrimental to business and the mining industry in particular. These associations also keep the company updated on policy and regulatory trends.

Engagement in South Africa is led by the CEO and facilitated through business associations and the national government Department of Environmental Affairs and Tourism.

Our Australian region has engaged in debate in national and state associations on all aspects of the government's Emission Trading Scheme. The Gold Group Australian gold mining companies has been activated in order to address climate change issues specific to our sector. In Australia, the company participates in the government-run "Greenhouse Challenge Plus" and "Energy Efficiency Opportunities" programmes.

The Australian region identified that the HSE&C Manager will drive the climate change project in the region. The region has a climate change/energy efficiency standard by which all operations will be managed. The region has formed a management team to manage the GHG accounting and reporting activities. At an operational level, a cross functional team has been formed to manage the site energy reduction projects.

The North American sub-region is a member of several organizations at the local, state, and national level that directly engage with the governmental and non-governmental policy makers on climate change issues. These organizations include: the National Mining Association; the Colorado Mining Association; the Nevada Mining Association; Alaska Miners Association; the Northwest Mining Association; the Colorado Association of Commerce and Industry; The Rocky Mountain Mineral Law Foundation, and several organizations at the County level. Also we track climate change issues through receipt of newsletters from industry groups such the Western Business Roundtable. The participation in these organizations is managed at the regional and site level and involves attending meetings and presentations and providing input to the organization's interactions and communications with policymakers.



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Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No