

**CARBON DISCLOSURE PROJECT**

Print Response

**CDP6 Greenhouse Gas Emissions Questionnaire**Responding corporation: **Ashland Inc.****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.

Ashland produces specialty chemicals for use in many different types of industrial applications, engine oil, lubricating fluids, and other car care products. We also operate an extensive chemical distribution business.

Ashland has developed an energy use inventory for our businesses and has estimated our contribution to global emissions of greenhouse gases (GHG). Although we are an extremely minor contributor, we are pleased to provide this response to the Carbon Disclosure Project.

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\$

7800

ISIN number

CUSIP number

SEDOL number

**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...

The main commercial risks to our company involve additional regulatory controls such as emissions caps that would negatively impact Ashland as they would all of industry. While these regulatory burdens may not impact Ashland directly due to our minor contribution to global GHG emission rates, we could be indirectly impacted by the effect on our suppliers and customers. Please see Item 1. a. iii. for a discussion of those impacts.

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...

Physical risks have the potential to affect Ashland sites in areas prone to sea level rise or extreme weather events much as they do the general public and other businesses. However, we anticipate only minor damage to our sites, and most are expected to be able to return to operation after the restoration of utilities. Resource shortages resulting from these physical risks are also expected to have a similar effect on Ashland as they will other businesses.

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...

Ashland believes that our businesses will be impacted by general risks as a result of climate change, such as increased costs for goods and services, reduced availability of certain raw materials and packaging, and increased energy costs.

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 haven't taken or planned action.

Ashland has historically managed energy and raw material sourcing options and costs through a variety of mechanisms. We will continue to increase our review of the impacts of regulatory and general risks on these options and costs. At this time, Ashland has not taken or planned action to adapt to the physical risks identified above.

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 do not assess current and/or future financial effects because...

Ashland has not determined the specific financial effects or business implications related to the risks discussed above.

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 do not consider that current or anticipated regulatory requirements offer opportunities because

Ashland does not anticipate opportunities to develop from the regulatory requirements on climate change other than those identified in Item 1. b. iii..

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 do not consider that current or anticipated physical changes offer opportunities because...

Ashland does not anticipate opportunities to develop from the physical changes from climate change other than those identified in Item 1. b. iii..

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...

Ashland has identified several market opportunities that have developed as a result of climate change. Ashland products have been used for years to create lightweight composites for the automotive industry, which improves fuel efficiency, and for the production of wind-turbine blades. Other Ashland products have been used to develop composite bridge materials, which can replace traditional concrete and steel construction, provide longer bridge life, and reduce maintenance requirements. Ashland also has been producing products made from bio-renewable resources for several years, and continues to increase those capabilities.

In addition to currently manufactured products, Ashland has identified several adjacent market opportunities that are beginning to develop as alternative energy technologies expand and evolve. The details of these opportunities are confidential at this time.

A previously announced project with Cargill to develop and produce bio-based chemicals from renewable raw materials was suspended in early 2008.

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.

See Item 1. b. iii..

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 do not assess current and/or future financial effects because...

Ashland has not determined the specific financial effects related to the opportunities discussed above.

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:

Other

Ashland's responses are based on facilities whose physical assets are owned above 50 percent.

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

Other: Ashland reports calendar-year values to the American Chemistry Council and in an annual Corporate Citizenship report, and wants to maintain a consistent reporting period whenever this information is provided. Therefore, Ashland has presented emissions based on the 2007 calendar year, from January 1, 2007 through December 31, 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](#)

Ashland bases GHG emission calculations on the GHG Protocol, but has developed tools internally to gather energy use data and calculate emissions. Emission factors used are from a variety of sources, including those from the World Resources Institute, industry associations and others.

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

[No](#)

### **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.

[176000 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.

[172000 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 CO2-e)**

Rest of World 28000  
USA              149000

Scope 2 – Indirect GHG emissions: Please provide:

c. Total global Scope 2 activity in metric tonnes CO2-e emitted

65000 CO2e metric tonnes

d. Total Scope 2 activity in metric tonnes CO2-e emitted for Annex B countries

61000 CO2e metric tonnes

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

**Country**      **Scope 2 Emissions**  
**(metric tonnes CO2-e)**

Rest of World 37000  
USA              28000

Electricity consumption

e. Total global MWh of purchased electricity

206000 MWh

f. Total MWh of purchased electricity for Annex B countries

199000 MWh

By country – MWh of purchased electricity by individual country.

**Country**

Rest of World 42000  
USA              164000

g. Total global MWh of purchased electricity from renewable sources

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

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

## Country

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

No

## 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?

Ashland has not identified GHG emissions from Scope 3 activities. In the past we have attempted to estimate the GHG emissions from our external distribution/logistics sources and supply chain, but at this time we do not have an accurate data set from which to work. Ashland has been implementing a comprehensive Enterprise Resource Planning (ERP) system. Once this system is fully implemented, we expect to provide this data.

Please provide where possible:

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

Not applicable.

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

i Employee business travel.

ii External distribution/logistics

iii Use/disposal of company's products and services.

iv Company supply chain.

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

Not applicable.

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

No

### 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?

No (Please go to question 2 (e))

(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.

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

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

No

### 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.

Ashland periodically reviews data collection systems, calculations, and internal reporting systems. However, Ashland does not yet have a systematic process in place to routinely review data accuracy.

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.

As noted in our 2006 response (CDP5), Ashland sold its transportation construction business during calendar year 2006. This was a major divestment in equipment and energy use, and contributed to nearly a 50% reduction in global GHG emissions. Several acquisitions have taken place in 2006 and 2007, but total energy use and GHG emissions have not changed dramatically as a result.

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

No

### Question 2(g) Emissions Trading

i) 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 CO2:

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 CO2.

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

Ashland has decided not to participate in any voluntary trading schemes or mechanisms, but will wait until the legislative and regulatory requirements mandate involvement.

CDM/JI

Ashland has decided not to participate in any voluntary trading schemes or mechanisms, but will wait until the legislative and regulatory requirements mandate involvement.

CCX

Ashland has decided not to participate in any voluntary trading schemes or mechanisms, but will wait until the legislative and regulatory requirements mandate involvement.

RGGI

Ashland has decided not to participate in any voluntary trading schemes or mechanisms, but will wait until the legislative and regulatory requirements mandate involvement.

Others

Ashland has decided not to participate in any voluntary trading schemes or mechanisms, but will wait until the legislative and regulatory requirements mandate involvement.

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)

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

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

More details

Ashland has not determined the total energy costs for 2007 from fossil fuels and electric power.

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.

No, we do not currently have a plan in place for the following reason(s):

Ashland has drafted a GHG policy and strategy, but has not yet formally developed an emission reduction program or proposed an emission reduction target. At this time we plan on continuing to gather energy use and GHG emissions data, and will consider an emission reduction target in the future. Our GHG policy will help drive higher fuel efficiency and energy use reductions through the normal process of replacing equipment. We also have invested in Six Sigma\* techniques, which have already resulted in some energy use reductions. We expect more Six Sigma\* projects to address energy efficiency in the future.

\* - Six Sigma is a registered trademark and service mark of Motorola, Inc.

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

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

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

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?

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

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

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

The most appropriate measurement of emissions intensity for Ashland will be based on production volumes. Ashland has not yet revised GHG emission calculations to routinely incorporate production, but plans on doing so in 2009.

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)

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

Scope 2/ US\$millions turnover

Scope 1/ EBITDA

Scope 2/ EBITDA

iii) Has your company developed emissions intensity targets?

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

See response to Item 3. a.

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?

No

## Question 3(c) Planning

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

No, we do not (Please take the opportunity to explain why not and then go to question 4 a)

Ashland does not yet forecast future energy use or GHG emissions.

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.

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

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

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.

Dates not selected.

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

**Scope 2 Emissions**

**Country (metric tonnes CO2-e)**

Forecasted electricity consumption

e. Forecasted total global MWh of purchased electricity

f. Forecasted total MWh of purchased electricity for Annex B countries

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

**Country**

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

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

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

**Country**

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

No

**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?

We have an active Environmental, Health and Safety (EHS) Committee of the Board. Our vice president of EHS participates on this committee, and is also responsible for managing our climate change strategies.

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

The EHS Department estimates our global GHG emissions, and communicates those emissions to the Board. We determine our contribution by business segment and are working with our businesses on setting GHG reduction targets.

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?

No

#### 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

No

ii) formal communications with shareholders or external parties

Yes

We communicate our energy use and GHG emissions publicly through the American Chemistry Council's annual metrics reporting. Energy use and GHG emissions are also included in the determination of an internal responsibility index.

iii) voluntary communications such as Corporate Social Responsibility reporting

Yes

We communicate our energy use and GHG emissions in our annual Citizenship Report. Our annual Citizenship Report can be found at [http://www.ashland.com/commitments/responsible\\_care.asp](http://www.ashland.com/commitments/responsible_care.asp).

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

Yes

We do not communicate our energy use and GHG emissions publicly in our Annual Report. We were unable to include energy use and GHG emissions data in our 2007 annual 10-K report, but are planning to do so in 2008.

#### 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.

No

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

Yes

We do not often directly engage with policymakers, but our interests are expressed through various industry associations such as the American Chemistry Council.