Search Results

Respondent CDP 2009: Anadarko Petroleum Corporation

General introduction

Anadarko Petroleum Corporation's mission is to deliver a competitive and sustainable rate of return to shareholders by exploring for, acquiring and developing oil and natural gas resources vital to the world's health and welfare. As of year-end 2008, the company had approximately 2.3 billion barrels of oil equivalent of proved reserves, making it one of the world's largest independent exploration and production companies. For more information about Anadarko, please visit www.anadarko.com.

Risk and Opportunities

1. Regulatory Risks: (CDP6 1(a)(i))

1.1 Is your company exposed to regulatory risks related to climate change?

We consider our company to be exposed to regulatory risks.

Yes. Anadarko is exposed to regulatory risks related to climate change.

Anadarko has an internal process for tracking current and emerging climate change regulation at the state, regional, federal, and global levels. Anadarko uses various internal and external resources to evaluate regulatory concerns and their potential impact to its business. An important part of Anadarko's regulatory evaluation process is its involvement in multiple industry groups such as the American Petroleum Institute (API), American Exploration and Production Council (AXPC), Gas Processors Association (GPA), Independent Petroleum Association of America (IPAA), and others through which Anadarko constantly monitors and tracks regulatory activities and participates in the legislative process. Anadarko assesses the potential business impact of each regulatory activity through policy analysis, modeling, and strategic engagement, in order to ensure proactive strategies to manage and ensure compliance. The process for evaluating regulatory concerns is managed by the Environment, Health and Safety Department.

The scope of proposed state, regional, and national legislation mandating limits on greenhouse gas (GHG) emissions indicates that Anadarko's operations will be impacted to some, currently, undetermined extent. Similar to Anadarko's comments on regulatory risk for CDP6, for its hydrocarbon exploration and production (E&P) activities, the risk lies primarily in uncertainty around what emission sources will be regulated (essentially, whether or not the financial burden presented by regulation will be imposed on the production of a resource or the end use of that resource), and associated carbon costs. Depending on the specifics of a GHG-limiting law, Anadarko may be required to report its emissions over a certain threshold and subsequently reduce emissions to meet a particular cap. These actions represent a potential cost of carbon that Anadarko must absorb through various compliance mechanisms. Because uncertainty exists over when, and if legislation will be signed into law, Anadarko continues to assume that regulation may be promulgated at any point.

Anadarko recognizes that if GHG regulation affects its operations, the potential carbon cost or benefit will impact the price of its oil and natural gas products provided to the market. Should the United States (U.S.) enter into an international climate change agreement, or current legislative activity in the U.S. is enacted, Anadarko operations are at risk.

U.S. regulatory risks currently emerging are expected to gain form and credibility in the next 12 to 18 months; Anadarko is currently taking advantage of this timescale by engaging proactively in legislative activity and preparing for regulation by continuing to improve existing verifiable emission inventories and emission reduction projects.

Anadarko is currently involved, through various Trade Associations, in the assessment and rulemaking process concerning the Environmental Protection Agency (EPA) proposed GHG mandatory reporting rule and GHG cap-and-trade legislation currently in deliberation in the House of Representatives. Anadarko seeks to minimize risks associated with emissions limits or efficiency standards through voluntary participation in programs such as U.S. EPA Natural Gas STAR and API Climate Action Challenge. In 2008, Anadarko joined The Climate Registry as a Founding Reporter and will verify and disclose its corporate GHG emissions

starting in 2008. Our involvement in this nation-wide registry will prepare us for mandatory reporting brought forth by legislation and identify us as an informed and well-positioned E&P company. In order to mitigate potential risks, Anadarko also actively participates in various trade associations to communicate our position on legislative proposals in order to create fair and effective regulations addressing climate change. Anadarko believes that any legislation passed into law should apply to all sectors of the economy and be uniform at the local, state and federal levels. Anadarko favors proposals designating the point of regulation as close as possible to the point of emission in order to more effectively drive consumer choice. Additionally, in the case of international agreements, Anadarko believes that the United States and U.S.-based businesses should not be treated disproportionately. Although these regulatory risks have not changed over the past 12 months, they are more certain now given the change in administration and increased level of federal activity.

Further information

For a formatted version of the CDP 2009 information request, open attached file.

Download attachment

2. Physical Risks: (CDP6 1(a)(ii))

2.1 Is your company exposed to physical risks from climate change?

We consider our company to be exposed to physical risks.

Yes. Anadarko may be exposed to physical risks related to climate change.

Physical risks are primarily related to extreme weather events (e.g., hurricanes) which research indicates may increase in intensity with increasing temperature. The 2005 hurricane season in the Gulf of Mexico demonstrated the potential damage and business impact that severe weather can have on the oil and natural gas industry. Anadarko had a strong environmental, health and safety record that season, with no injuries to its employees and relatively minimal risk to its platforms and the environment. Anadarko also has minimal risk pertaining to onshore operations from tornado activity in Kansas, Oklahoma and Texas and operational shut-ins due to extreme cold in Utah, Colorado, and Wyoming. At this time, these risks are difficult to assess. Overall, severe weather is most likely to affect offshore operations, but we are aware that onshore weather patterns may also change in ways that affect our operations.

These extreme weather events, particularly hurricanes, have the ability to shut down operations and halt oil and natural gas production from affected areas. This not only impacts Anadarko's revenue stream, but also the flow of natural gas and crude oil to marketers and refiners of fuels for heating, transportation, and electricity. If these physical risks remain constant, they could be the cause of potential fossil fuel resource scarcity in the Gulf of Mexico and surrounding regions of the US. These risks may be mitigated by enhancing production or rerouting reserves from unaffected regions.

As indicated, physical risks may impact operations in the Gulf of Mexico, Utah, Colorado, Wyoming, and Alaska. Additionally, operations in low-lying areas close to sea level in Africa and Indonesia may be subject to physical risks. These risks are ongoing due to their seasonality; therefore they are constantly being evaluated by Anadarko. Consistent with activities last year, Anadarko continues to analyze data from previous season to better prepare for future weather events. These physical risks have not changed over the past twelve months.

Further information

3. Other Risks: (CDP6 1(a)(iii))

3.1 Is your company exposed to other risks as a result of climate change?

We consider our company to be exposed to other risks.

Yes. Anadarko may be exposed to other non-regulatory or physical risks related to climate change.

Shifting consumer attitude and demand for hydrocarbons present some broad risks to the industry as a whole. Anadarko's portfolio of strong North American assets, including large volumes of natural gas and enhanced oil recovery (EOR) projects that sequester carbon dioxide, positions the company well to anticipate changing consumer awareness and preferences in the U.S. energy markets. Anadarko anticipates natural gas demand to increase and the demand for more carbon-intensive crude oil may decrease, particularly as end users recoil from volatile oil prices and refining demand lowers.

Anadarko's entire global portfolio is subject to risks associated with consumer preferences. Anadarko is currently exposed to these risks given the current global recession; these risks may increase or decrease depending on the health of the global economy, development of alternative fuels, and the price of traditional fossil fuels. Anadarko's portfolio is relatively balanced between oil and natural gas, so risks are spread among higher and lower carbon intensive fuels. Anadarko expects to continue to invest in natural gas and carbon sequestration in order to adapt to a carbon-constrained world and mitigate potential economic losses from a reduction in crude oil demand. Additionally, Anadarko's EOR projects may enhance attractiveness to buyers looking to lower their carbon footprint. Anadarko is committed to being part of the solution to climate change.

Anadarko actively participates in various trade associations to communicate our position on legislative proposals in order to create fair and effective regulations addressing climate change. Anadarko is heavily involved in the debate surrounding legislative attempts to address climate change, by providing comments on potential regulation and assessing how various legislative proposals may impact Anadarko's business and energy consumers. Anadarko believes that any legislation passed into law should recognize natural gas as a clean and abundant alternative fuel.

Further information

4. Regulatory Opportunities: (CDP6 1(b)(i))

4.1 Do regulatory requirements on climate change present opportunities for your company?

Regulatory requirements present opportunities for my company.

Yes. Regulatory requirements may present opportunities for Anadarko.

Anadarko has an internal process for tracking current and emerging climate change regulation at the state, regional, federal, and global levels. Anadarko uses various internal and external resources to evaluate regulatory activities and their potential impact to its business. An important part of Anadarko's regulatory evaluation process is its involvement in multiple industry groups such as API, AXPC, GPA, IPAA, and others through which Anadarko constantly learns of regulatory activities and participates in the legislative lawmaking process. Anadarko assesses the potential business impact of each regulatory activity through policy analysis, modeling, and strategic engagement, in order to ensure proactive strategies to manage and ensure compliance. The Salt Creek and Monell EOR projects are evaluated financially via the increased production that results from their implementation and the value of the emission reductions they represent.

Anadarko consistently demonstrates its leadership in carbon capture and storage (CCS) technology and employing carbon sequestration in tandem with EOR; many of our peers lack this experience. Additionally, Anadarko recognizes that long-term potential economic and regulatory opportunities may be recognized through its current emission reduction projects that may proactively put Anadarko in an advantageous position to easily comply with potential regulation or potentially sell emission reduction credits.

Anadarko's highly successful Salt Creek project in Wyoming sequesters anthropogenic carbon dioxide to produce oil from a 100-year-old field, thus representing increased production and decreased GHG emissions. Anadarko continues to evaluate additional opportunities to apply the lessons learned at Salt Creek to create win-win situations for both its business and the environment. We hope that the verified emissions reductions (VER) generated by these projects will allow us to meaningfully participate in carbon markets and garner early action credit as regulatory regimes develop. Additionally, proposed legislation provides an opportunity for emitters to standardize how GHG emissions are reported and disclosed. Anadarko is a Founding Member of the American Carbon Registry in order to take advantage of a voluntary registry that is progressively providing consistency on how GHG emission reductions should be reported, in addition to providing protocols and reporting standards that may be useful templates for future regulation.

Anadarko's EOR projects may enhance attractiveness to buyers looking to lower their carbon footprint, representing an economic value to other aspects of the oil and gas value chain. Crude oil with a lower carbon footprint will be highly attractive to those buyers subject to low carbon fuel standards. Many of Anadarko's international operations are subject to potential opportunities from international climate change regulation pertaining to emission reduction credits that may be earned on a project-basis. International opportunities are ongoing, and U.S. regulatory risks and opportunities are currently emerging.

Anadarko continues to primarily invest in climate change activities with its Salt Creek and Monell EOR projects. Rather than venting carbon dioxide after use, more than 30 million tons of CO2 over the lifetime of these projects will be sequestered. Anadarko also actively participates in various trade associations to communicate our position on legislative proposals in order to create fair and effective regulations addressing climate change. Anadarko is heavily involved in the debate surrounding legislative attempts to address climate change, by providing comments on potential regulation, and assessing how various legislative proposals may impact Anadarko's business and its EOR projects. Anadarko hopes that future regulations will recognize early voluntary action to reduce GHG emissions, particularly emissions reduced through valid carbon sequestration projects. Although these regulatory opportunities have not changed over the past 12 months, they are more certain now given the change in administration and increased level of federal activity.

Further information

5. Physical Opportunities: (CDP6 1(b)(ii))

5.1 Do physical changes resulting from climate change present opportunities for your company?

Physical changes do not present opportunities for my company.

No. Physical changes resulting from climate change do not currently present opportunities for Anadarko.

Due to a lack of data on how physical impacts of climate change may positively impact the oil and natural gas industry, potential opportunities have not been considered at this time. Because physical risks presented to Anadarko's business pertain to extreme weather events, moderate seasonal weather patterns and events maintain business as usual for Anadarko's operations and do not provide enhanced business opportunities. These views are consistent with those of the past 12 months.

Further information

6. Other Opportunities: (CDP6 1(b)(iii))

6.1 Does climate change present other opportunities for your company?

Climate change presents other opportunities for my company.

Yes. Climate change presents other opportunities for Anadarko.

Like risks, opportunities are assessed through financial modeling that considers Anadarko's assets, the production mix of natural gas versus oil, and how legislative proposals may impact our business. Anadarko continues to see a primary long-term opportunity to supply the U.S. market with clean-burning natural gas fuel. Anadarko's Eastern Gulf of Mexico projects account for approximately two percent of the nation's overall supply of natural gas. As consumers seek to shift to less carbon-intensive fuels, Anadarko believes that its ability to deliver this resource will serve it well under a carbon-constrained regulatory environment.

As a provider of clean-burning natural gas, Anadarko is positioned to provide a lower carbon footprint to consumers, which will in turn aid their potential compliance with regulatory schemes to reduce GHG emissions. This may reduce costs for consumers who otherwise would need to buy credits or invest in technology. Anadarko produces natural gas nationwide, and expects to contribute significantly to domestic natural gas supplies.

The vision of natural gas as a low-carbon fuel and the development of and investment in natural gas infrastructure has already begun, and will only increase within coming years. Climate change has led to investment or planned investment in order to maximize climate change opportunities. Anadarko's unique positioning as a major provider of domestic natural gas creates an opportunity for us to fill a growing demand in a carbon-constrained environment to which our competitors may be less adaptable. Anadarko continues to invest in research and the development of natural gas production, as we see ourselves as a major supplier of natural gas, a low-carbon fuel, in future years. Our views on being a major provider of natural gas and seeing natural gas as a low-carbon solution has not changed over the past 12 months.

Further information

Greenhouse Gas (GHG) Emissions Accounting, Emissions Intensity, Energy and Trading

7. Reporting Year (CDP6 Q2(a)(ii))

Information about how to respond to this section may be found in "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)" developed by the World Resources Institute and the World Business Council for Sustainable Development ("the GHG Protocol"), see http://www.ghgprotocol.org/.
ISO 14064-1 is compatible with the GHG Protocol as are a number of regional/national programme protocols. For more information see http://www.ghgprotocol.org/ and use the guidance button above.

Please provide CDP with responses to questions 7, 8, 9, 10.1, 10.2, 11.1 and 11.2 for the three years prior to the current reporting year if you have not done so before or if this is the first time you have answered a CDP information request. Please work backwards from the current reporting year, so that you enter data for your oldest reporting period last.

Questions 10.1, 10.2, 11.1, and 11.2 are on subsequent webpages and the dates that you give in answer to question 7 will be carried forwards to automatically populate those webpages.

7.1. Please state the start date and end date of the year for which you are reporting GHG emissions.

Start date: 01 January 2007
End date: 31 December 2007

8. Reporting Boundary: (CDP6 Q2(a)(i))

8.1. Please indicate the category that describes the company, entities, or group for which Scope 1 and Scope 2 GHG emissions are reported.

Companies over which operational control is exercised.

8.2. Please state whether any parts of your business or sources of GHG emissions are excluded from your reporting boundary.

All international assets are joint ventures that fall under equity control or do not meet operational control definitions.

9. Methodology: (CDP6 Q2(a)(iii))

9.1. Please describe the process used by your company to calculate Scope 1 and Scope 2 GHG emissions including the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 GHG emissions.

Please provide your answer in the text box. In addition to this description, if relevant, select a methodology from the list of published methodologies. This will aid automated analysis of the data.

Anadarko's methodology for calculating GHG emissions is consistent with standards set by the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI) Greenhouse Gas Protocol and established industry guidelines found in the IPIECA/ API/ OGP Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions. Additionally, Anadarko's calculation methodologies have been cross referenced for consistency with The Climate Registry General Reporting Protocol.

Select methodologies:

IPIECA's Petroleum Industry Guidelines for reporting greenhouse gas emissions, 2003
The Climate Registry
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

Please also provide:

9.2 Details of any assumptions made.

Anadarko reports emissions of carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). Emissions of GHGs other than CO2 and CH4 within the petroleum industry are generally insignificant. The additional GHG groups of fluorinated gases, although not closely associated with the petroleum industry, may be emitted by various subsectors in refrigerant systems. These gases may be used as solvents and emitted during various manufacturing processes; however, because none of these processes are core to Anadarko's business, emissions of these gases are assumed to be negligible. This assumption is consistent with the Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions.

9.3 The names of and links to any calculation tools used.

Anadarko has adopted the SANGEA™ GHG Emissions Estimation System for its corporate reporting and evaluation of emission reductions from its EOR operations. The version made available by API is designed to facilitate corporate reporting to API's GHG Benchmarking Program, a part of API's Climate Greenhouse Gas Estimation & Reporting Challenge, in which Anadarko participates. Anadarko uses the SANGEA™ system in accordance with the petroleum industry GHG reporting guidance described in the aforementioned protocols. The SANGEA™ Emissions Estimation System can be downloaded from the following link: http://ghg.api.org/nsoftware.asp

Select calculation tools:

Anadarko has adopted the SANGEA™ GHG Emissions Estimation System for its corporate reporting and evaluation of emission reductions from its EOR operations. The version made available by API is designed to facilitate corporate reporting to API's GHG Benchmarking Program, a part of API's Climate Greenhouse Gas Estimation & Reporting Challenge, in which Anadarko participates. Anadarko uses the SANGEA™ system in accordance with the petroleum industry GHG reporting guidance described in the aforementioned protocols. The SANGEA™ Emissions Estimation System can be downloaded from the following link: http://ghg.api.org/nsoftware.asp

9.4 The global warming potentials you have applied and their origin.

In SANGEA™, the user may specify which global warming potentials (GWP) to use: values designated in either the 2nd or 3rd IPCC Assessment Report. Anadarko uses the GWPs from the 2nd IPCC Assessment Report.

9.5 The emission factors you have applied and their origin.

The calculation methods in the SANGEA™ Emissions Estimation System are based on the Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Gas Industry published by API in February 2004. The accuracy of the SANGEA™ tool and its consistency with the Compendium has been verified by API. A link to the Compendium is as follows:

http://www.api.org/ehs/climate/new/upload/2004_COMPENDIUM.pdf

Further information

10. Scope 1 Direct GHG Emissions: (CDP6 Q2(b)(i))

Instructions for question 10 and question 11 (following page)

When providing answers to questions 10 and 11, please do not deduct offset credits, Renewable Energy Certificates etc, or net off any estimated avoided emissions from the export of renewable energy, carbon sequestration (including enhanced oil recovery) or from the use of goods and services. Opportunities to provide details of activities that reduce or avoid emissions are provided elsewhere in the information request.

Carbon dioxide emissions from biologically sequestered carbon e.g. carbon dioxide from burning biomass/biofuels should be reported separately from emissions Scopes 1, 2 and 3. If relevant, please report these emissions in question 15. However, please do include any nitrous oxide or methane emissions from biomass/biofuel combustion in your emissions under the three scopes.

Please answer the following questions using Table 1.

Please provide:
10.1. Total gross global Scope 1 GHG emissions in metric tonnes of CO_2-e

Please break down your total gross global Scope 1 emissions by:
10.2. Country or region

Please provide CDP with responses to questions 10.1 and 10.2 for the three years prior to the current reporting year if you have not done so before or if this is the first time you have answered a CDP information request. Please work backwards from the current reporting year, so that you enter data for your oldest reporting period last. Table 1 (below) and table 5 (Q11.1 and 11.2) will be automatically populated with the dates that you give in answer to 7.1.

Electric utilities should report emissions by country/region using the table in question EU3.

Table 1 - Please use whole numbers only. Use the "Other" option in the drop down menu to enter the name of a region.

Reporting year Q7.1 Start date	01/01/2007
Reporting year Q7.1 End date	31/12/2007
10.1 Total gross global Scope 1 GHG emissions in metric tonnes CO_2-e	8284413
10.2 Gross Scope 1 emissions in metric tonnes CO_2-e by country or region	
USA	8284413

Your answer to question 10.1 will be automatically carried forward to tables 2 and 3 below if you add a country or region in answer to 10.2 or press "Save" at the end of the page.

Please tick the box if your total gross global Scope 1 figure (Q10.1) includes emissions that you have transferred outside your reporting boundary (as given in answer to 8.1). Please report these transfers under 13.5.

Where it will facilitate a better understanding of your business, please also break down your total global Scope 1 emissions by:

10.3. Business division
and/or
10.4. Facility

10.3. Business division (only data for the current reporting year requested)

Table 2 - Please use whole numbers only.

Business Divisions - Enter names below	Scope 1 Metric tonnes CO2-e
Total gross global Scope 1 GHG emissions in metric tonnes CO_2-e - answer to question Q10.1	8284413
E&P	3858503
Midstream	4425910

10.4. Facility (only data for the current reporting year requested)

Table 3 - Please use whole numbers only.

Facilities - Enter names below	Scope 1 Metric tonnes CO2-e
Total gross global Scope 1 GHG emissions in metric tonnes CO_2-e - answer to question Q10.1	8284413

10.5. Please break down your total global Scope 1 GHG emissions in metric tonnes of the gas and metric tonnes of CO_2-e by GHG type. (Only data for the current reporting year requested.)

Table 4 - Please use whole numbers only.

Scope 1 GHG Type	Unit	Quantity
CO_2	Metric tonnes	5554316
CH4	Metric tonnes	127673
CH4	Metric tonnes CO_2-e	2681131
N2O	Metric tonnes	158
N2O	Metric tonnes CO_2-e	48966

HFCs	**Metric tonnes**	0
HFCs	**Metric tonnes CO_2-e**	0
PFCs	**Metric tonnes**	0
PFCs	**Metric tonnes CO_2-e**	0
SF6	**Metric tonnes**	0
SF6	**Metric tonnes CO_2-e**	0

10.6. If you have not provided any information about Scope 1 emissions in response to the questions above, please explain your reasons and describe any plans you have for collecting Scope 1 GHG emissions information in future.

Anadarko will continue to calculate our Scope 1 emissions on an annual basis per Anadarko's Greenhouse Gas Management Plan using the methodologies as described in 9. above.

Further information

11. Scope 2 Indirect GHG Emissions: (CDP6 Q2(b)(i))

Important note about emission factors where zero or low carbon electricity is purchased:

The emissions factor you should use for calculating Scope 2 emissions depends upon whether the electricity you purchase is counted in calculating the grid average emissions factor or not – see below. You can find this out from your supplier.

Electricity that IS counted in calculating the grid average emissions factor:
Where electricity is sourced from the grid and that electricity has been counted in calculating the grid average emissions factor, Scope 2 emissions must be calculated using the grid average emissions factor, even if your company purchases electricity under a zero or low carbon electricity tariff.

Electricity that is NOT counted in calculating the grid average emissions factor:
Where zero or low carbon electricity is sourced from the grid or otherwise transmitted to the company and that electricity is not counted in calculating the grid average, the emissions factor specific to that method of generation can be used, provided that any certificates quantifying GHG-related environmental benefits claimed for the electricity are not sold or passed on separately from the electricity purchased.

Click here to see the instructions from the previous page on answering question 11.

Please answer the following questions using Table 5.

Please provide:
11.1. Total gross global Scope 2 GHG emissions in metric tonnes of CO_2-e.
Please break down your total gross global Scope 2 emissions by:

11.2. Country or region

Please provide CDP with responses to questions 11.1 and 11.2 for the three years prior to the current reporting year if you have not done so before or if this is the first time you have answered a CDP information request. Please work backwards from the current reporting year, so that you enter data for your oldest reporting period last. Table 5 will be automatically populated with the dates that you gave in answer to 7.1.

Table 5 - Please use whole numbers only. Use the "Other" option in the drop down menu to enter the name of a region.

Reporting year Q7.1 Start date	01/01/2007
Reporting year Q7.1 End date	31/12/2007
11.1 Total gross global Scope 2 GHG emissions in metric tonnes CO_2-e	641458
11.2 Gross Scope 2 emissions in metric tonnes CO_2-e by country or region	
USA	641458

Your answer to 11.1 will be automatically carried forward to tables 6 and 7 below if you add a country or region in answer to 11.2 or press "Save" at the end of the page.

Where it will facilitate a better understanding of your business, please also break down your total global Scope 2 emissions by:

11.3. Business division
and/or
11.4. Facility

11.3. Business division (only data for the current reporting year requested)

Table 6 - Please use whole numbers only.

Business Divisions - Enter names below	Scope 2 Metric tonnes CO2-e
Total gross global Scope 2 GHG emissions in metric tonnes CO_2-e - answer to question Q11.1	641458
E&P	534546
Midstream	106912

11.4. Facility (only data for the current reporting year requested)

Table 7 - Please use whole numbers only.

Facilities - Enter names below	Scope 2 Metric tonnes CO2-e
Total gross global Scope 2 GHG emissions in metric tonnes CO_2-e - answer to question Q11.1	641458

11.5. If you have not provided any information about Scope 2 emissions in response to the questions above, please explain your reasons and describe any plans you have for collecting Scope 2 GHG emissions information in future.

Anadarko will continue to calculate our Scope 2 emissions on an annual basis per Anadarko's Greenhouse Gas Management Plan using the methodologies as described in 9. above.

Further information

12. Contractual Arrangements Supporting Particular Types of Electricity Generation: (CDP6 Q2(b)(i)- Guidance)

12.1. If you consider that the grid average factor used to report Scope 2 emissions in question 11 does not reflect the contractual arrangements you have with electricity suppliers, (for example, because you purchase electricity using a zero or low carbon electricity tariff), you may calculate and report a contractual Scope 2 figure in response to this question, showing the origin of the alternative emission factor and information about the tariff.

Anadarko currently does not have any direct special arrangements with renewable electricity providers. However, many of the electric providers that supply electricity do have a percentage of electricity generated from renewables. Efforts are underway to identify these suppliers.

12.2. If you retire any certificates (eg: Renewable Energy Certificates) associated with zero or low carbon electricity, please provide details.

There are currently two (2) operating facilities on Anadarko land (Mountain Wind I and II) operated by Edison Mission Energy. Anadarko receives a four percent (4%) royalty of gross income from the facilities, specifically including revenue from the sale of renewable energy certificates (RECs). Anadarko's share of REC volume is proportionate to our royalty. In 2008 3,568 RECs (Anadarko's share) were created and made available.

Further information

13. Scope 3 Other Indirect GHG Emissions: (CDP6 Q2(c))

For each of the following categories, please:
- Describe the main sources of emissions,
- Report emissions in metric tonnes of CO_2-e,
- state the methodology, assumptions, calculation tools, databases, emission factors (including sources) and global warming potentials (including sources) you have used for calculating emissions.

Notes about question 13

When providing answers to question 13, please do not deduct offset credits, Renewable Energy Certificates etc, or net off any estimated avoided emissions from the export of renewable energy, carbon sequestration (including enhanced oil recovery) or from the use of goods and services. Opportunities to provide details of activities that reduce or avoid emissions are provided elsewhere in the information request.

Carbon dioxide emissions from biologically sequestered carbon e.g. carbon dioxide from burning biomass/biofuels should be reported separately from emissions Scopes 1, 2 and 3. If relevant, please report these emissions in question 15. However, please do include any nitrous oxide or methane emissions from biomass/biofuel combustion in your emissions under the three scopes.

13.1 Employee business travel
Describe the main sources of emissions

Anadarko does have employee business travel, via aircraft and car to and from operational sites and administrative offices. The emissions resulting from this travel include GHGs from the combustion of transportation fuels. At this time Anadarko does not have a complete estimate of GHG emissions from employee business travel, but to calculate these mobile combustion emissions Anadarko would employ the methodology outlined in The Climate Registry General Reporting Protocol using fuel consumption or mileage and the associated emission factors provided.

Emissions in metric tonnes CO_2-e.

State the methodology, assumptions, calculation tools, databases, emission factors (including sources) and global warming potentials (including sources) you have used for calculating emissions.

13.2. External distribution/logistics
Describe the main sources of emissions

Anadarko does have Scope 3 emissions associated with the distribution of oil and gas that it produces. These emissions result from potential leaks and fugitive emissions pertaining to transportation of produced materials via pipeline for processing and/or refining. Additional emissions may also result from transportation of crude oil via tanker and /or truck for refining, and the associated mobile combustion emissions. At this time Anadarko does not have a complete estimate of GHG emissions from distribution and logistics associated with its products, but to calculate these fugitive and mobile combustion source emissions Anadarko would employ the methodology outlined in the API Compendium of GHG Emissions Estimation Methodologies for the Oil & Gas Industry using throughput, fuel consumption or mileage, and the associated emission factors provided.

Emissions in metric tonnes CO_2-e.

State the methodology, assumptions, calculation tools, databases, emission factors (including sources) and global warming potentials (including sources) you have used for calculating emissions.

13.3 Use/disposal of company's products and services

For auto manufacture and auto component companies – please refer to the additional questions for these sectors before completing question 13.3.
Describe the main sources of emissions

Anadarko does have Scope 3 emissions associated with the use and disposal of its products. These emissions result primarily from the combustion of natural gas or refined crude oil products for heating, electricity, and transportation. Because these products represent commodities in the global market and are consumed by a variety of end users, estimation of the emissions associated with their use is challenging. The best representation of these emissions may be assessed by the direct Scope 1 emissions associated with natural gas-fired power plants, cars and trucks, and natural gas heating systems in commercial and residential use. These emissions may be calculated via methods exhibited in the API Compendium.

Emissions in metric tonnes CO_2-e.

State the methodology, assumptions, calculation tools, databases, emission factors (including sources) and global warming potentials (including sources) you have used for calculating emissions.

13.4 Company supply chain
Describe the main sources of emissions

Anadarko does have Scope 3 emissions associated with its supply chain. These emissions range from the production and transportation of materials and chemicals necessary for our exploration operations to the waste transportation and disposal of spent drill pipe. Because these sources of Scope 3 emissions are

so varied and complex, quantification of their emissions is difficult. Methods to calculate Scope 3 emissions from supply chain activities involve the use of specific life-cycle emission factors for each material used or disposed of throughout our operations. These emission factors may be collected via proprietary life-cycle assessment (LCA) databases.

Emissions in metric tonnes CO_2-e.

State the methodology, assumptions, calculation tools, databases, emission factors (including sources) and global warming potentials (including sources) you have used for calculating emissions.

13.5 Other
If you are reporting emissions that do not fall into the categories above, please categorise them into transferred emissions and non-transferred emissions (please see guidance for an explanation of these terms).

Please report transfers in the first three input fields and non-transfers in the last three input fields.

Transfers
Describe the main sources of emissions

Anadarko also has Scope 3 emissions from the use of oilfield service equipment for drilling and well maintenance. While these services are contracted and may not always be included in direct emissions estimates, they may be quantified via methods and emission factors found in the API Compendium.

Transfers
Report emissions in metric tonnes of CO_2-e.

Transfers
State the methodology, assumptions, calculation tools, databases, emission factors (including sources) and global warming potentials (including sources) you have used for calculating emissions.

Non-transfers
Describe the main sources of emissions

Non-transfers
Report emissions in metric tonnes of CO_2-e.

Non-transfers
State the methodology, assumptions, calculation tools, databases, emission factors (including sources) and global warming potentials (including sources) you have used for calculating emissions.

13.6 If you have not provided information about one or more of the categories of Scope 3 GHG emissions in response to the questions above, please explain your reasons and describe any plans you have for collecting Scope 3 indirect emissions information in future.

While at this time Anadarko does not formally quantify Scope 3 emission sources, specific Scope 3 sources integral to our business, such as contractor work at our drilling operations, may be included in the future. Because Scope 3 emission sources are not required by current proposed legislation or by any of the voluntary emission reporting programs to which Anadarko reports, we currently see no immediate need to account for these emissions when they are reported as direct emissions of other companies and organizations. Anadarko is prepared, however, to investigate those Scope 3 emissions crucial to our business and the development of emission estimates for those sources.

Further information

14. Emissions Avoided Through Use Of Goods And Services (New for CDP 2009)

14.1. If your goods and/or services enable GHG emissions to be avoided by a third party, please provide details including the estimated avoided emissions, the anticipated timescale over which the emissions are avoided and the methodology, assumptions, emission factors (including sources), and global warming potentials (including sources) used for your estimations.

Anadarko produces natural gas, which is a clean fuel in comparison to more carbon-intensive fuels like coal and crude oil. Therefore, fuel switching to use of natural gas by third-party users such as power plants and operators of wide-scale transportation using trains and buses directly results in avoided GHG emissions. For a typical 1000 MW power plant, switching from the burning of electric utility-grade coal to pipeline-specification natural gas results in a 41 percent reduction in CO2 over one year (assuming the plant operates 24 hours a day). Using the same assumptions, a switch from the burning of #4 fuel oil to pipeline-specification natural gas results in a 26 percent reduction in CO2 over one year.

Annual emissions for a 1000 MW power plant burning coal: 2,971,066 metric tons CO2
Annual emissions for a 1000 MW power plant burning #4 fuel oil: 2,397,178 metric tons CO2
Annual emissions for a 1000 MW power plant burning natural gas: 1,763,510 metric tons CO2

In this scenario, switching from coal to natural gas results in annual saved emissions of 1,207,556 metric tons CO2. Switching from #4 fuel oil to natural gas results in annual saved emissions of 633,668 metric tons CO2. This estimation uses methods outlined in the API Compendium of GHG Emissions Estimation Methodologies for the Oil and Gas Industry and associated LHV emission factors for electric utility coal (0.0994 metric tons CO2/10^6 Btu), #4 fuel oil (0.0802 metric tons CO2/10^6 Btu), and pipeline natural gas (0.0590 metric tons CO2/10^6 Btu) as referenced in Table 4-3.

Further information

15. Carbon Dioxide Emissions from Biologically Sequestered Carbon: (New for CDP 2009)

An example would be carbon dioxide from burning biomass/biofuels.

15.1. Please provide the total global carbon dioxide emissions in metric tonnes CO_2 from biologically sequestered carbon.

Emissions in metric tonnes CO_2 - Please use whole numbers only

0

Further information

Zero metric tons CO2 is sequestered by Anadarko biologically. Although Anadarko contributes to volunteer and community activities that plant trees and encourage reforestation/afforestation activities, no formal biological sequestration projects have been initiated at this time.

16. Emissions Intensity: (CDP6 Q3(b))

16.1. Please supply a financial emissions intensity measurement for the reporting year for your combined Scope 1 and 2 emissions.

Please describe the measurement.

Anadarko calculates financial emissions intensity measurements. For the reporting year the calculation disclosed herein is based on million USD revenue. This metric is chosen because of its use by the CDP in the Global 500 Report 2008.

16.1.1. Give the units. For example, the units could be metric tonnes of CO_2-e per million Yen of turnover, metric tonnes of CO_2-e per US$ of profit, metric tonnes of CO_2-e per thousand Euros of turnover.

Metric tons CO2e/million USD revenue

16.1.2. The resulting figure.
Use a decimal point if necessary. Please use a "." rather than a "," i.e. please write 15.6 rather than 15,6

568

16.2. Please supply an activity related intensity measurement for the reporting year for your combined Scope 1 and 2 emissions.

Please describe the measurement.

Anadarko calculates activity-related emissions intensity. For exploration and production operations (E&P) and midstream operations, Anadarko uses two different measurements in order to most appropriately represent the intensity of each business unit. For E&P operations, Anadarko calculates emissions intensity based on million barrels of oil-equivalent produced. For midstream operations, Anadarko calculates emissions intensity based on million barrels of oil-equivalent throughput.

16.2.1. Give the units e.g. metric tonnes of CO_2-e per metric tonne of output or for service sector businesses per unit of service provided.

E&P: Metric tons CO2e/MMBOE produced
Midstream: Metric tons CO2e/MMBOE throughput

16.2.2. The resulting figure.
Use a decimal point if necessary. Please use a "." rather than a "," i.e. please write 15.6 rather than 15,6

22.3

Further information

E&P: 22.3 Metric tons CO2e/MMBOE produced
Midstream: 21.3 Metric tons CO2e/MMBOE throughput

17. Emissions History: (CDP6 Q2(f))

17.1. Do emissions for the reporting year vary significantly compared to previous years?

Yes

Yes. Emissions for the reporting year, calendar year 2007, vary significantly compared to previous years.

Direct emissions for both E&P and midstream operations increased from 2006 to 2007; E&P emissions increased to a lesser degree than midstream emissions. These emissions increased due to the acquisition and development of new assets.

The emissions intensity for both E&P and midstream operations, however, decreased from 2006 to 2007. Decreased emissions intensity over 2007 is due to improved energy efficiency across operations. Although Anadarko has been adding assets and continuing to develop, emissions intensity has decreased due to our ability to produce more oil and gas while maintaining efficiency improvements to reduce GHG emissions.

If the answer to 17.1 is Yes:

17.1.1. Estimate the percentage by which emissions vary compared with the previous reporting year.

This box will accept numerical answers containing a decimal point. Please use "." not "," i.e. write 10.6, not 10,6.

3.9 %

Have the emissions increased or decreased?

Increased

Further information

For direct Scope 1 GHG emissions, E&P emissions increased two percent (2%) from 2006 to 2007. Midstream direct Scope 1 GHG emissions increased nine percent (9%) from 2006 to 2007.

Emissions intensity decreased five percent (5%) from 2006 to 2007 for E&P operations; for midstream operations, emissions intensity decreased eight percent (8%) over the same time period.

18. External Verification/Assurance: (CDP6 Q2(d))

18.1. Has any of the information reported in response to questions 10 – 15 been externally verified/assured in whole or in part?

Yes, it has been externally verified/assured in whole or in part.(Please continue with questions 18.2 to 18.5)

It would aid automated analysis of responses if you could select responses from the tick boxes below. However, please use the text box provided if the tick boxes menu options are not appropriate.

18.2. State the scope/boundary of emissions included within the verification/assurance exercise.

Scope 1 Q10.1
Scope 2 Q11.1

Please use the text box below to describe the scope/boundary of emissions included within the verification/assurance exercise if the tick box menu options above are not applicable.

Yes. Anadarko is currently in the process of externally verifying Anadarko's 2006-2007 corporate-wide GHG emissions inventory through The Climate Registry's verification process. Anadarko is a Founding Reporter of The Climate Registry. In November 2008 Anadarko completed the necessary forms and received approval by The Climate Registry to proceeed with verification activities.

The scope/boundary of the verification exercise includes our corporate-wide GHG emissions inventory as described in the Anadarko Corporate Greenhouse Gas Emissions Inventory Protocol.

18.3. State what level of assurance (eg: reasonable or limited) has been given.

At this time, Anadarko is still in the verification process. A level of assurance equaled to +/- 5% will be needed per The Climate Registry requirements.

18.4. Provide a copy of the verification/assurance statement.

Please attach a copy/copies.

18.5. Specify the standard against which the information has been verified/assured.

Using The Climate Registry's Verification Protocol and ISO 14064 the Anadarko corporate-wide emissions inventory is being verified/assured.

18.6. If none of the information provided in response to questions 10-15 has been verified in whole or in part, please state whether you have plans for GHG emissions accounting information to be externally verified/assured in future.

As a Founding Reporter in The Climate Registry Anadarko will continue to externally verify/assure future disclosures of information provided to The Climate Registry.

Further information

At this time, Anadarko is still in the verification process and expects to receive a verification statement this year.

19. Data Accuracy: (CDP6 Q2(e) – New wording for CDP 2009)

19.1. What are the main sources of uncertainty in your data gathering, handling and calculations e.g.: data gaps, assumptions, extrapolation, metering/measurement inaccuracies etc?

If you do not gather emissions data, please select emissions data is NOT gathered and proceed to question 20.

Emission data is gathered.

Uncertainty is associated with emission rates, activity data, and emission factors used to develop Anadarko's GHG inventory. Improper calibration of instruments and monitoring data may impact the accuracy of flow meters. Additionally, human error may be attributed to uncertainty in emission calculations and assimilation of activity data. Anadarko also recognizes that emission factors, although from appropriate industry-standard resources, have uncertainty characterized by the dispersion of the respective measurement values used to derive them initially.

19.2. How do these uncertainties affect the accuracy of the reported data in percentage terms or an estimated standard deviation?

Anadarko quantifies GHG emissions using guidance concerning data quality tiers from IPIECA's Petroleum Industry Guidelines for Reporting GHG Emissions. These Guidelines describe three data quality tiers for upstream and downstream oil and gas activities; Anadarko estimates emissions using methods corresponding to IPIECA's Tier B standards at a minimum. The uncertainty associated with upstream GHG emissions quantification using Tier B methodologies

equates to between 20 and 40 percent.

19.3. Does your company report GHG emissions under any mandatory or voluntary scheme (other than CDP) that requires an accuracy assessment?

Yes (Please answer the following questions - 19.3.1, 19.3.2).

19.3.1 Please provide the name of the scheme.

Other

The Climate Registry.

19.3.2. Please provide the accuracy assessment for GHG emissions reported under that scheme for the last report delivered.

The Climate Registry requires Verification Bodies to assess the accuracy of direct and indirect emissions both be deemed as accurate (within 5 percent) for a Verification body to issue a successful Verification Statement for any entity.

Further information

20. Energy and Fuel Requirements and Costs: (New for CDP 2009)

Please provide the following information for the reporting year:

Cost of purchased energy

20.1. The total cost of electricity, heat, steam and cooling purchased by your company.

32000000

Select currency

United States dollar

20.1.1. Please break down the costs by individual energy type.

Table 8 - The "Cost" column will not accept text. Please use whole numbers only.

Energy type	Cost	Currency
Electricity	32000000	United States dollar
Heat		United States dollar
Steam		United States dollar
Cooling		United States dollar

Cost of purchased fuel

20.2. The total cost of fuel purchased by your company for mobile and stationary combustion.

60000000

Select currency

United States dollar

20.2.1. Please breakdown the costs by individual fuel type.

Table 9 - The cost column will not accept text. Please use whole numbers only.

Mobile combustion fuels	Cost	Currency

Stationary combustion fuels	Cost	Currency

Energy and fuel inputs

The following questions are designed to establish your company's requirements for energy and fuel (inputs). Please note that MWh is our preferred unit for answers as this helps with comparability and analysis. Although it is usually associated with electricity, it can equally be used to represent the energy content of fuels (see CDP 2009 Reporting Guidance for further information on conversions to MWh).

Purchased energy input

20.3 Your company's total consumption of purchased energy in MWh.

Please use whole numbers only.

Purchased and self produced fuel input

20.4. Your company's total consumption in MWh of fuels for stationary combustion only. This includes purchased fuels, as well as biomass and self-produced fuels where relevant.

Please use whole numbers only.

In answering this question and the one below, you will have used either Higher Heating Values (also known as Gross Calorific Values) or Lower Heating Values (also known as Net Calorific Values).
Please state which you have used in calculating your answers.

20.4.1. Please break down the total consumption of fuels reported in answer to question 20.4 by individual fuel type in MWh.

Table 10 - Please use whole numbers only

Stationary combustion fuels	MWh

Energy output

In this question we ask for information about the energy in MWh generated by your company from the fuel that it uses. Comparing the energy contained in the fuel before combustion (question 20.4) with the energy available for use after combustion will give an indication of the efficiency of your combustion processes, taking your industry sector into account.

20.5. What is the total amount of energy generated in MWh from the fuels reported in question 20.4?

Please use whole numbers only.

20.6. What is the total amount in MWh of renewable energy, excluding biomass, that is self-generated by your company?

Please use whole numbers only.

Energy exports

This question is for companies that export energy that is surplus to their requirements. For example, a company may use electricity from a combined

heat and power plant but export the heat to another organisation.

20.7. What percentage of the energy reported in response to question 20.5 is exported/sold by your company to the grid or to third parties?

Please use whole numbers only.

20.8. What percentage of the renewable energy reported in response to question 20.6 is exported/sold by your company to the grid or to third parties?

Please use whole numbers only.

Further information

Anadarko estimates the total cost of purchased electricity to be approximately $32 million dollars.

Anadarko estimates the cost of purchased fuel (gasoline, diesel, and jet fuel) for mobile combustion to be approximately $60 million dollars. This estimate of total fuel cost was estimated by using a combination of fuel purchase logs and vehicle mileage logs. The 2007 EIA data was used to estimate the cost per gallon of fuel. Please note the emissions associated with stationary combustion are included in the total emissions previously disclosed in this information request.

21. EU Emissions Trading Scheme: (CDP6 Q2(g)(i) – New wording for CDP 2009)

Electric utilities should report allowances and emissions using the table in question EU5.

21.1. Does your company operate or have ownership of facilities covered by the EU Emissions Trading Scheme (EU ETS)?

No (Please go to question 22.)

Please give details of:

21.2. The allowances allocated for free for each year of Phase II for facilities which you operate or own. (Even if you do not wholly own facilities, please give the full number of allowances).

Table 11 - Please use whole numbers only.

	2008	2009	2010	2011	2012
Free allowances metric tonnes CO2					

21.3. The total allowances purchased through national auctioning processes for the period 1 January 2008 to 31 December 2008 for facilities that you operate or own. (Even if you do not wholly own facilities, please give the total allowances purchased through auctions by the facilities for this period).

Total allowances purchased through auction

21.4. The total CO_2 emissions for 1 January 2008 to 31 December 2008 for facilities which you operate or own. (Even if you do not wholly own facilities, please give the total emissions for this period.)

Total emissions in metric tonnes

Further information

22. Emissions Trading: (CDP6 Q2(g)(ii) - New wording for CDP 2009)

Electric utilities should read EU6 before answering these questions.

22.1. Please provide details of any emissions trading schemes, other than the EU ETS, in which your company already participates or is likely to

participate within the next two years.

We participate or anticipate participating in trading schemes other than the EU ETS in the next two years.

Anadarko will participate in any federal, regional or state government-mandated cap and trade program to regulate and reduce GHGs. Anadarko is already preparing to comply with cap and trade activities within the Western Climate Initiative (WCI) commencing in 2012. Similarly, should the United States pass an energy bill including development of a cap and trade program, Anadarko will participate in this program. Anadarko is currently preparing proactively to be involved in these programs by developing verifiable GHG emissions inventories and emission reduction projects.

22.2. What is your overall strategy for complying with any schemes in which you are required or have elected to participate, including the EU ETS?

Anadarko's strategy is to comply with whatever scheme we may be regulated within or elect to participate in. Whether through command and control or carbon market activities, Anadarko will ensure that its GHG emissions meet the appropriate allowances specified. Specifically, Anadarko feels well-positioned to gain by participation in a cap and trade program due to our experience with carbon sequestration via enhanced oil recovery projects. We have extensive knowledge about carbon capture and storage activities and have successfully implemented these activities. Our understanding of the best reservoirs for CCS and the modes of drilling necessary to enhance these projects gives us an advantage in identifying and developing these types of emission-saving activities. Furthermore, our experience verifying and selling associated emission reduction credits well positions us to actively engage and seek opportunities under a cap and trade program.

Further information

22. Carbon credits

22.3. Have you purchased any project-based carbon credits?

No. (Please go to question 22.5)

Please indicate whether the credits are to meet one or more of the following commitments:

Please also:

22.4 Provide details including the type of unit, volume and vintage purchased and the standard/scheme against which the credits have been verified, issued and retired (where applicable).

22.5. Have you been involved in the origination of project-based carbon credits?

Yes. (Please answer the following question)

22.6. Please provide details including:

- **Your role in the project(s),**
- **The locations and technologies involved,**
- **The standard/scheme under which the projects are being/have been developed,**
- **Whether emissions reductions have been validated or verified,**
- **The annual volumes of generated/projected carbon credits,**
- **Retirement method if used for own compliance or offsetting.**

Anadarko operates two (2) EOR projects in the Salt Creek and Monell Fields located in Wyoming that sequesters carbon dioxide. Utilizing registry published standards, methodologies, protocols and tools for GHG accounting based on International Standards Organization (ISO) 14064 and sound scientific practice, emission reductions from these project-based carbon offsets are shown to be real, additional, verifiable and comply with registry standards. The offset projects are verified on an annual basis by an independent third-party and meet GHG accounting principles, eligibility and additionality criteria.

For the two EOR project, the following emission reductions volumes have been third-party verified, and registered:

Year GHG Verified Emission Reductions (VER, metric tons)
2008** 2,607,570
2007** 2,397,713
2006** 1,101,253
2005* 2,035,886
2004* 1,280,159

*Registered on the Canadian Standard Association GHG Reductions Registry©
**Registered on the American Climate Registry™

Any emission reductions sold or transferred are marked as retired by the registry. Additionally, Anadarko is constantly seeking ways to enhance efficiency and bolster production, commonly leading to subsequent reductions in emissions. Many sources of these emission reductions are currently being evaluated for potential offset projects that can be verified and registered.

22.7. Are you involved in the trading of allowances under the EU ETS and/or project-based carbon credits as a separate business activity, or in direct support of a business activity such as investment fund management or the provision of offsetting services?

Yes. (Please answer the following question)

22.8. Please provide details of the role performed.

As a U.S. company with no EU-based operations, Anadarko does not qualify to participate in the EU ETS. However, Anadarko has entered into private transactions in the U.S. market for VERs from its EOR operations. These actions are in support of our business activity.

Further information

Performance

23. Reduction plans & goals: (CDP6 Q3(a))

23.1. Does your company have a GHG emissions and/or energy reduction plan in place?

Yes. (Please go to question 23.3)

23.2. Please explain why.

It would aid automated analysis of responses if you could select a response from the options below as well as using the text box. However, please just use the text box provided if the options are not appropriate.

If the menu options above are not appropriate, please answer the question using the text box below:

Yes. Anadarko has a GHG Management Plan that includes development of emission-reducing activities. Policies include the use of best management practices to enhance energy efficiency and capture methane in addition to implementation of projects that show significant savings economically in addition to environmentally.

Goal setting

23.3. Do you have an emissions and/or energy reduction target(s)?

No. (Please go to question 23.8)

23.4 What is the baseline year for the target(s)?

23.5. What is the emissions and/or energy reduction target(s)?

23.6. What are the sources or activities to which the target(s) applies?

GHG emissions and energy reduction activities

23.7. Over what period/timescale does the target(s) extend?

Further information

23. GHG emissions and energy reduction activities

23.8. What activities are you undertaking or planning to undertake to reduce your emissions/energy use?

Anadarko is constantly seeking ways to enhance efficiency and bolster production, commonly leading to subsequent reductions in emissions. Anadarko operates two (2) EOR projects that sequester carbon dioxide in Wyoming. The emissions reductions generated by these projects are currently being verified and banked on an annual basis. Additionally, as a member of the U.S. EPA Natural Gas STAR program and the API Climate Action Challenge, Anadarko is committed to reporting reductions in methane emissions, considering cost-effective ways to reduce GHG intensity, and developing ideas to reduce, sequester, and offset GHG emissions. Project related activities including green completions, replacing high-bleed pneumatic controllers with low- or no-bleed controllers, installation of plunger lifts, vapor recovery units and flares.

Further information

23. Goal evaluation

23.9. What benchmarks or key performance indicators do you use to assess progress against the emissions/energy reduction goals you have set?

Although Anadarko does not have formalized reduction targets, it assesses progress with emission reduction activities via GHG emission inventory and emissions intensity metrics. These indicators are published on our external website and through this information request.

Further information

23. Goal achievement

23.10. What emissions reductions, energy savings and associated cost savings have been achieved to date as a result of the plan and/or the activities described above? Please state the methodology and data sources you have used for calculating these reductions and savings.

See Question 22.6 for verified emission reductions from Anadarko's two (2) EOR/Sequestration Projects.

In addition to these projects since joining the EPA Natural Gas STAR program in 1996, Anadarko has achieved cumulative emissions reductions of over 38 billion cubic feet (bcf) of gas, equivalent to the emissions of 2.8 million cars. In 2008 alone, Anadarko (a Production Partner) reported 3.2 bcf of methane gas savings in 2008, a 12.5% increase from 2007. Western Gas Resources (a Processing Partner) reported for midstream operations over 447,000 thousand cubic feet (mcf) of methane savings in 2008, a 350% increase from 2007. Methodologies used for calculating these reductions are based on published best management practices (BMP) and partner related opportunities (PRO) approved by the EPA.

23.11. What investment has been required to achieve the emissions reductions and energy savings targets or to carry out the activities listed in response to question 23.8 and over what period was that investment made?

Table 13 - The "Investment number" column will not accept text. Please use whole numbers only.

Emission reduction target/energy saving target or activity	Investment number	Investment currency	Timescale

Further information

Associated costs and savings are not available for public disclosure. Continued investment in carbon sequestration technology will be necessary to continue funding emissions reductions from Anadarko's EOR projects. Anadarko has retained these projects with the understanding that these are long-term projects providing long-term emissions reductions.

23. Goal planning & investment

Electric utilities should read the table in question EU3 for giving details of forecasted emissions.

23.12. What investment will be required to achieve the future targets set out in your reduction plan or to carry out the activities listed in response to question 23.8 above and over what period do you expect payback of that investment?

Table 14 - The "Number" column will not accept text. Please use whole numbers only.

Title field value.

Plan or action	Investment number	Investment currency	Payback

23.13. Please estimate your company's future Scope 1 and Scope 2 emissions for the next five years for each of the main territories or regions in which you operate or provide a qualitative explanation for expected changes that could impact future GHG emissions.

If possible, please use table 15 below to structure your answer to the question or alternatively use the text box below.

Anadarko expects in the next five years that its Scope 1 emissions will be relatively constant to slightly increase as additional assets are added to our portfolio. Anadarko aims to develop and provide adequate supplies of clean natural gas to supply our nation's need for a consistent source of energy that reduces GHG emissions and creates energy security. Further development of natural gas resources will naturally increase our total GHG emissions as a result. We expect that our emissions intensity, however, will continue to decrease as we enhance efficiency of our operations while continuing to bolster production.

Scope 1 forecasted emissions in Table 15 below are in the following units.

Scope 2 forecasted emissions in Table 15 below are in the following units.

Table 15 - The "Scope" columns will not accept text. Please use whole numbers only.
Type in the name of the territory or region for which you are giving data and then press "Add Territory/Region". If giving a global figure instead of separate figures for regions or territories, please write "global" in the box labelled "Enter name of territory or region".

Click here to see a sample table.

Future reporting years:										
End date for year end DD/MM/YYYY										
Emission forecasts	Scope 1	Scope 2	Scope 1	Scope 2	Scope 1	Scope 2	Scope 1	Scope 2	Scope 1	Scope 2

23.14. Please estimate your company's future energy use for the next five years for each of the main territories or regions in which you operate or provide a qualitative explanation for expected changes that could impact future GHG emissions.

If possible, please use table 16 below to structure your answer to the question or alternatively use the text box below.

Anadarko expects that despite an increase in production, energy use will remain relatively constant, perhaps with some slight increase over the next five years. While some energy use in terms of satellite offices and fleet mobility will be required to support expansion of production going into the future, Anadarko will maintain its current large energy users, such as offices, in a consistent manner.

Table 16 - Please use whole numbers only.
Type in the name of the territory or region for which you are giving data and a description of the data you are giving e.g. electricity consumption. Then press "Add Row". If giving a global figure instead of separate figures for regions or territories, please use the word "global". This table will also accept different types of units e.g. units of volume or mass.

Click here to see a sample table.

Future reporting years:										
End date for year end DD/MM/YYYY										
Energy use estimates for territory/region	Number	Units	Number	Units	Number	Units	Number	Units	Number	Units

23.15. Please explain the methodology used for your estimations and any assumptions made.

Anadarko has used emissions and energy intensity to estimate how GHG emissions and energy use may change in the next five years. By multiplying energy and emissions intensity by projected production and energy consumption, broad assumptions about how these metrics might change may be extrapolated. Anadarko assumes that natural gas production will increase significantly over the next five years and that energy use will maintain relative constant.

Further information

24. Planning: (CDP6 Q3(c))

24.1. How do you factor the cost of future emissions into capital expenditures and what impact have those estimated costs had on your investment decisions?

At this time, Anadarko is evaluating the potential impact of future climate change legislation as it pertains to Anadarko's oil and gas activities; these evaluations include the cost of carbon. Publicly available studies are being used to estimate the cost of emissions under a cap and trade system and potential savings from various carbon sequestration projects are also being evaluated. While Anadarko is continually conducting financial impact assessments of various legislative proposals and evaluating changing economic conditions due to shifts in fuel demand, forecasting information on the price of emissions for new projects is unavailable.

Further information

Governance

25. Responsibility: (CDP6 Q4(a))

25.1. Does a Board Committee or other executive body have overall responsibility for climate change?

Yes. (Please answer question 25.3 and 25.4)

25.2 Please state how overall responsibility for climate change is managed and indicate the highest level within your company with responsibility for climate change.

The highest level within Anadarko responsible for climate change is the Board of Directors. A Board Committee prioritizes and instigates climate change activity within Anadarko, which then evolves and develops via an internal Anadarko Climate Change Committee. The corporate environmental team handles implementation and communication of climate change activities.

25.3. Which Board Committee or executive body has overall responsibility for climate change?

The Board of Directors' Nominating and Corporate Governance Committee and the Anadarko Climate Change Committee have overall responsibility for evaluating and addressing climate change issues. Additionally, there is a corporate risk management process that considers climate change and is actively modeling current public policy and legislative proposals for how they will impact our business now and in the future.

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

he Climate Change Committee, composed of employees representing disciplines across Anadarko, continues to organize, evaluate, and advise on climate change and GHG issues within the Company. The Committee meets, in full or in part, on a quarterly basis or more frequently, as necessary. The Committee reports annually through executive management to the Board of Directors' Nominating and Corporate Governance Committee.

Further information

26. Individual Performance: (CDP6 Q4(b))

26.1. Do you provide incentives for individual management of climate change issues including attainment of GHG targets?

Yes. (Please go to question 26.2)

26.2. Are those incentives linked to monetary rewards?

Yes. Anadarko indirectly provides incentives for prudently managing GHG emissions; since methane is the major component of natural gas, it is inherently in Anadarko's best interest to capture the gas produced for sale in lieu of emissions. Utilizing BMPs and PROs provided by the U.S. EPA Natural Gas STAR program, Anadarko reports methane reductions achieved annually, which are indicative of additional profits for the business units.

26.3. Who is entitled to benefit from those incentives?

Business units that are actively reducing emissions may inherently be increasing their productivity as well. Therefore, any business unit engaged in efficient activities and implementation of emissions saving actions will benefit as a result of those actions.

Further information

27. Communications: (CDP6 Q4(c))

27.1. Do you publish information about the risks and opportunities presented to your company by climate change, details of your emissions and plans to reduce emissions?

Yes. Anadarko publishes information on the risks and opportunities presented by climate change, details of our emissions, and emission reduction activities.

If so, please indicate which of the following apply and provide details and/or a link to the documents or a copy of the relevant excerpt:

27.2. The company's Annual Report or other mainstream filings.

Yes

The 2008 Annual Report discusses the sale of emission reduction credits derived from carbon sequestration associated with the EOR projects in Wyoming, as well as Anadarko's annual reported GHG emissions. While SEC filings do not specifically address climate change or GHGs, their costs and potential burdens are indirectly included within Anadarko's environmental liability language comments of the 10-K return.

27.3. Voluntary communications (other than to CDP) such as Corporate Social Responsibility reporting.

Yes

Anadarko chooses to use its public website and the CDP as a venue for disclosure concerning its GHG emissions and climate change activities. Anadarko's publicly available climate change information may be found on its website at the following link:

http://www.anadarko.com/Responsibility/Pages/ClimateChange.aspx

Additionally, because Anadarko reports to The Climate Registry GHG emissions will be verified and reported on an annual basis within the public domain.

Further information

28. Public Policy: (CDP6 Q4(d))

28.1. Do you engage with policymakers on possible responses to climate change including taxation, regulation and carbon trading?

Yes

Yes. Anadarko regularly engages with policymakers.

Anadarko actively participates on climate change legislative proposals at the local, state, and federal levels, through industry groups and lobbying efforts with federal legislators. Through this engagement, Anadarko communicates concerns on a variety of climate change topics and initiatives at both the regional and federal levels. Examples of this include involvement in the Western Climate Initiative and The Climate Registry. Anadarko also actively comments on protocols managing GHG emissions accounting, inventory management, GHG emissions reduction, and verification procedures. Additionally, Anadarko frequently comments on legislative proposals (e.g. Anadarko is currently involved with industry groups on federal activity with the proposed EPA GHG Mandatory Reporting Rule and legislation that is currently pending in the House of Representatives. We feel it is crucial to be informed and comment, where appropriate, on any legislative proposals or regulatory initiatives (including regulatory rulemaking and guidance document development or revision) pertaining to climate change that may impact our business and consumers.

Further information

Title field value.