

## Module: Introduction

## Page: Introduction

## 0.1

**Introduction**

**Please give a general description and introduction to your organization.**

Eni is major integrated energy company committed to growth in the activities of finding, producing, transporting, transforming and marketing oil and gas. The Company has global operations in 77 Countries and employs 78,417 people. In 2009 Eni reported consolidated net sales from operations of € 83.23 billion, with an adjusted net profit of € 5,207 billion. Investments and acquisitions amounted to € 16.02 billion. Eni's business is divided in: - Exploration & Production - Gas & Power - Refining & Marketing - Engineering & Construction - Petrochemical

## 0.2

**Reporting Year**

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

**Enter Periods that will be disclosed**

Thu 01 Jan 2009 - Thu 31 Dec 2009

Tue 01 Jan 2008 - Wed 31 Dec 2008

## 0.3

**Are you participating in the Walmart Sustainability Assessment?**

No

## 0.4

**Modules**

As part of the Investor CDP information request, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors and companies in the oil and gas industry should complete supplementary questions in addition to the main questionnaire.

If you are in these sectors, the corresponding sector modules will be marked as default options to your information request.

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see

[www.cdproject.net/cdp-questionnaire](http://www.cdproject.net/cdp-questionnaire).

Electrical

## 0.5

**Country list configuration**

**Please select the countries for which you will be supplying data. This selection will be carried forward to assist you in completing your response.**

**Select country**

Italy

United States of America

Australia

China

Austria

Select country
Belgium
Croatia
Cyprus
Czech Republic
Denmark
France
Germany
Greece
Hungary
Ireland
Luxembourg
Malta
Netherlands
Norway
Poland
Portugal
Romania
Slovakia
Slovenia
Spain
Sweden
Switzerland
Turkey
United Kingdom
Algeria
Angola
Cameroon
Congo, Democratic Republic of the
Cote d Ivoire
Egypt
Equatorial Guinea
Gabon
Ghana
Libyan Arab Jamahiriya
Mali
Morocco
Mozambique
Nigeria
Tunisia
Azerbaijan
Timor Leste
India
Indonesia
Iran, Islamic Republic of
Iraq
Kazakhstan
Kuwait
Malaysia
Oman
Pakistan
Papua New Guinea
Qatar
Russia
Saudi Arabia
Singapore

Select country
Taiwan
Thailand
Turkmenistan
Ukraine
United Arab Emirates
Vietnam
Yemen
Argentina
Brazil
Canada
Colombia
Dominican Republic
Ecuador
Mexico
Peru
Trinidad and Tobago
Venezuela

**0.6 Please select if you wish to complete a shorter information request.**

**Further Information**

**Attachments**

**Module: Governance**

**Page: Governance**

**1.1 Where is the highest level of responsibility for climate change within your company?**

Board committee or other executive body

**1.1a**

**Please specify who is responsible.**

Board/Executive Board

**1.1b Select the lower level department responsible.**

**1.2 What is the mechanism by which the board committee or other executive body reviews the company's progress and status regarding climate change?**

The Chief Operating Officers and the Chief Financial Officer, together with the Chief Corporate Operations Officer and the Executives which directly report to the CEO (Senior Executive Vice President of the Company) are permanent members of the Management Committee, which advises and supports the CEO. This board takes care of the first approval and review of all the internal procedures and strategic document (the ones related to climate change too). In addition, eni's Health, Safety, Environment and Quality (HSEQ) department is responsible for the Climate Change issues management and provides the Board of Directors with periodic updating of carbon management related matters. The Greenhouse Gas Management Team, composed by the subsidiaries and business areas GHG responsables, is responsible for the yearly approval of the Transaction Plan and all the other climate change related activities (e.g. identifying possible reduction measures, coordinating audits, certification and training, benchmarking eni's GHG position against peers). The Board of Directors, on a proposal made by the CEO, in agreement with the Chairman, subject to the prior approval of the Board of Statutory Auditors, has appointed the Company's Chief Financial Officer as the Officer in charge of preparing financial reports and he is the head of the financial affairs DEPARTEMENT in charge of implementing the EUA trading, as defined within the approved Transaction Plan.

**1.3a** Please explain how overall responsibility for climate change is managed within your company.

**1.3b**

Please explain how overall responsibility for climate change is managed within your company.

**1.4** Do you provide incentives for the management of climate change issues, including the attainment of greenhouse gas (GHG) targets?

Yes

**1.5** Please complete the table.

Who is entitled to benefit from those incentives?	The type of incentives
Chief Executive Officer (CEO)	Monetary reward
Chief Operating Officer (COO)	Monetary reward
Executive officer	Monetary reward
Management group	Monetary reward
Business unit managers	Monetary reward
Energy managers	Monetary reward
Facility managers	Monetary reward
Process operation managers	Monetary reward
Public affairs managers	Monetary reward
Risk managers	Monetary reward

#### Further Information

The corporate governance structure of Eni follows the traditional model, which assigns corporate management (climate change strategies too) to the Board of Directors, the linchpin of the organisational system, supervisory functions to the Board of Statutory Auditors and auditing of the accounts to the audit firm appointed by the Shareholders' Meeting. So based on the recommendation of the Chief Executive Officer, Eni's Board of Directors [collegially] establishes the Company and Group strategies and objectives, including Sustainability policies [and climate change ones] (Report on Corporate Governance 2009, pag.101, Annual report, attached). Managers whose activities refer to climate change are rewarded for achieving their specific annual objectives. Goals and Objectives (e.g. definition and implementation of the wide carbon management strategy, successful lobbying activities of the relevant Italian and European authorities) given to those managers include a performance indicator focused on sustainability issues as a whole. The sustainability indicator is worth 10% of the entire Chief Operations Officers performance evaluation, senior managers and managers achieving their goals could receive up to 30% of their entire performance evaluation by having a good performance in sustainability

#### Attachments

[https://www.cdproject.net/Sites/2010/34/5634/Investor CDP 2010/Shared Documents/Attachments/InvestorCDP2010/Governance/annual-report-2009.pdf](https://www.cdproject.net/Sites/2010/34/5634/Investor%20CDP%202010/Shared%20Documents/Attachments/InvestorCDP2010/Governance/annual-report-2009.pdf)

### Module: Risks and Opportunities

#### Page: Risks & Opportunities Identification Process

**2.1** Describe your company's process for identifying significant risks and/or opportunities from climate change and assessing the degree to which they could affect your business, including the financial implications.

As an integrated energy company operating in over 70 countries eni is exposed to risks related to climate change impacts on its businesses: oil & gas exploration, development and production; supply, storage, transport, distribution and marketing of natural gas, electricity generation, refining and marketing, petrochemicals, oilfield services construction and engineering. The degree to which climate change could affect eni's business is limited thanks to its well diversified portfolio. Eni is currently developing a standardized methodology for the evaluation of the Exposure to Risk, keeping into account the ones which refer to climate change too. The methodology will encompass the overall responsibilities, the high level evaluation process, the fields of application and the decision criteria. Furthermore an Application Procedure

will make reference to all the technical calculation tools for the evaluation of the Exposure to Risk. A classification procedure will also be able to prioritize the exposures according to the relevance (around 2,000 producing assets worldwide only in the E&P sector). The departments involved in the industrial risks analysis are: Industrial Risk Management at central level in cooperation with Planning, Health Safety and Environment, Development, Production, Legal, Procurement. The Financial risks (commodities, currency, credit) are covered by the finance department. Eni is also studying the possibility to include in gas sales contracts a warm winter protection hedging. The Exposure to Risk (EtR) assessment, is aimed at defining the potential economic losses due to damages to operating assets in case of a major accident. The process is based on those items: - Eni has around 2,000 production facilities in over 70 countries; - Approach shall be standardised across all geographies for offshore and onshore assets; - Evaluation shall be performed annually to take into account reservoir depletion; - EtR evaluation process based on technical assumptions: -Defined set of perils/reference accidents; -Defined set of corresponding damage scenarios; -Evaluation of all EtR cost items, including reconstruction options; -Reference event is linked to HSE Report Exposure; - EtR generates benefits in terms of level of control over risk exposure and effectiveness in sizing insurance coverage. With respect to HSE Risks exposure, standardized methodologies for the HSE Risk Management (Hazid, Hazop, QRA – Quantitative Risk Assessment) are in place the HSE risk assessment addresses: identification of hazards and their potential effects; evaluation of the likelihood and severity of hazards identified; assessment of potential damages to people, environment, assets and reputation; identification of risks and damages, reduction measures. As per HSE risk process assessment & management, audit & control, eni's HSE Risks management procedures are part of the Integrated Management System - IMS (100% coverage, employees+contractors), throughout the whole life of projects. The IMS was firstly adopted in 2003 and revised in 2007 and in 2010 in order to introduce better auditing procedures, definition of leading indicators and risk analysis techniques. The IMS receives the principles of the international standards ISO 14001 and OHSAS 18001. Eni's IMS is based on an annual cycle of planning, implementation, control, review of results and definition of new objectives. The HSE management system is systematically subject to internal and external audits: 1,563 audits overall were performed only in 2009.

#### Further Information

#### Attachments

**Page: Regulatory Risks**

### 3.1 Do current and/or anticipated regulatory requirements related to climate change present significant risks to your company?

Yes

#### Do you want to answer using:

A text box

### 3.2A

#### What are the current and/or anticipated significant regulatory risks related to climate change and their associated countries/regions and timescales?

Risk	Region/Country	Timescale in Years	Comment

### 3.2B

#### What are the current and/or anticipated significant regulatory risks related to climate change and their associated countries/regions and timescales?

Eni actively manages regulatory risks by monitoring national, European and international policy developments as its businesses are affected by climate change related policies and agreements. For example, the effects of regulatory risks at European level can result in more stringent emissions thresholds for the company's plants in Europe as well as loss of competitiveness towards competitors located in non-EU countries characterized by milder regulations or none regulations at all. On the other hand, climate change regulations can affect the hydrocarbon demand in the coming years therefore impacting on carbon intensive businesses like refining, petrochemicals and power generation. Considering the international policy developments after the Copenhagen Summit and the new proposals at European level, issues at stance are: - the proposal of increase of the European emissions reduction target to 2020 from 20% to 30%; - Carbon leakages and Border Adjustment Measures; - Auctioning and Benchmarking system for European Union Allowances

allocation in the EU ETS; - Post Kyoto and Carbon Offsets evolution; - Flaring Down Policies. Regions: Europe will be the most affected area by climate change regulations, in particular considering the potential increase of the 2020 target to 30%. Indeed this new target will reinforce the European Commission's determination to achieve the global leadership in tackling climate change already embodied through the so called "20 20 20 by 2020" policy (Energy Policy for Europe - EPE) approved in December 2008. The evolution of policy on flaring down may also impact oil producing countries. In the case of Eni, the effect of potential flaring down policies will be deployed mainly in the African continent, where eni's derives half of its total hydrocarbon production. Timescale: from present up to at least 2020.

---

### 3.3

**Describe the ways in which the identified risks affect or could affect your business and your value chain.**

Eni's Regulatory risks identification and impact assessment process is performed on a regular basis by the HSE department and the Public Affairs Department, that are in constant interaction with Italian, European and International policy makers. Eni is engaged in the European and International policy making process mainly in two different ways. In conjunction with competitors or other industrial partners, Eni is in direct relationship with National and European organizations that are direct interlocutors of the Regulatory Authorities. Confindustria (the Italian association of industrial producers), Assoelettrica (the Italian association of power producers), Unione Petrolifera (the Italian association of refiners), UNICE (The European employers confederation) and EUROPIA (the European government affairs organisation of the oil refining and marketing industry in the EU and EEA) are just some examples of these organizations. Risks identified: As mentioned before high priorities regulatory risks identified are: - European emissions reduction target in 2020: the current proposal of increasing of the European emissions abatement target from 20% to 30% can affect both eni's plants activities, through the aggravations of the cap and trade system, and the market. - Carbon leakages: Eni is evaluating the potential risk of carbon leakage for some of its activities (e.g. petrochemicals, refining, oil & gas upstream) - a fundamental issue for European competitiveness. In January 2010, the European Commission has published the list of the sectors at risk of carbon leakage that includes the above mentioned sectors; for this reason they shall receive allowances for free along the EU ETS phase 3. - Auctioning and Benchmarking: eni is evaluating the impact on his own business of the auctioning in the EU ETS phase 3 (2013-2020), where allowances will be mostly allocated through auction process rather than for free. In particular, no allowances will be allocated free of charge for electricity production, whereas sectors (i.e. refining petrochemical) exposed to a carbon leakage risk will receive allowances for free based on ambitious benchmarks. - Post Kyoto and Carbon Offsets Evolution: the definition of a Post Kyoto regime is currently not clear. In particular, the players that will undertake actions and what the targets and the relative measures for achieving them are not defined yet. Moreover, limitations (due to geography, approval timeline, industrial sector, etc.) to the usage of carbon credits after 2013 in the European Emission Trading Scheme can affect eni's offset projects portfolio. - Flaring reduction policies: in countries where associated gas produced with oil is not economically viable, the development of flaring down policies represents an important element to address for upstream investments.

---

**3.4 Are there financial implications associated with the identified risks?**

Yes

---

**3.5 Please describe them.**

The European Union commitments and the ongoing development of a post 2012 international framework for reducing greenhouse gases indicates that carbon trading will continue to play an important role in the reduction of the greenhouse gases. Eni is evaluating the best solutions for hedging the Emission Trading short position starting from 2011, paying particular attention to: 1) the relationship between EUAs and CERs; 2) the CERs/EUAs Swap, as the existence of fungible carbon products with different prices has resulted in arbitrage possibilities between these products; 3) the EUA Forward Curves, as another trading opportunity lies in relationship between the cost of carry and the spread between the various vintages of EUAs; 4) the correlation between EUAs and other energy products, as eni is involved in the supply and trading of other energy products. With regard to flaring-down initiatives, projects in Algeria, Angola, Congo, Libya, Nigeria, Tunisia, Turkmenistan and Kazakhstan, have entailed a 0.5 billion euro investment in 2009 and will be completed by 2013 through an additional investment of over 1.1 billion euro

---

**3.6 Describe any actions the company has taken or plans to take to manage or adapt to the risks that have been identified, including the cost of those actions.**

- New European emissions reduction target in 2020: eni is presently assessing the impacts of the new targets (currently under definition by the European Commission) on its activities and businesses. After the assessment of the impacts will be performed, eni will set up actions updating its carbon strategy according to the new constraints and limitations (for example, by acquiring additional carbon credits and European Union allowances). - Carbon leakages: Eni is evaluating the potential risk of carbon leakage for some of its activities (e.g. petrochemicals, refining, oil & gas upstream) - a fundamental issue for European competitiveness. In January 2010, the European Commission has published the list of the sectors at risk of carbon leakage that includes the above mentioned sectors; for this reason they shall receive

allowances for free along the III EU ETS phase. Currently, eni is trying to figure out how the recent European Commission proposal to reduce the GHG emission by 30% within 2020 - without ambitious and mandatory target from the rest of the world - will impact the European "Carbon Leakage" sectors and its own business. - Auctioning and Benchmarking: at same time, eni is evaluating the impact on his own business of the auctioning in the EU ETS III phase (2013-2020), where allowances will be mostly allocated through free allocation process rather than for free. In particular, no allowances will be allocated free of charge for electricity production, whereas sectors (i.e. refining petrochemical) exposed to a carbon leakage risk will receive allowances for free based on ambitious benchmarks. In August 2009 eni has participated to the Public Consultation to define a proposal of Auctioning Regulation (please follow this link to analyse eni position on the Auctioning system:

<http://ec.europa.eu/environment/climat/emission/pdf/Other%20energy%20companies/Eni.pdf>) Furthermore, eni is assessing the Auctioning Regulation draft provided by the Commission on 6th April 2010 that should be adopted by the end of June. With regard to the definition of benchmarks for free allocation by the Commission, eni is intensely collaborating with national and international Associations recognised as primary Stakeholders (CONCAWE, EUROPIA, CEFIC, IETA) in order to identify the most efficient benchmarks. - Post Kyoto and Carbon Offsets evolution: in order to assess the risks related to its carbon offset portfolio, eni actively monitors negotiations on the Post Kyoto regime and the European Emissions Trading Scheme - phase 3 . Particular attention is paid to the effects on CDM (Clean Development Mechanisms) in relation with the development of the Sectorial Crediting and limitation to the usage of credits in the EU Emissions Trading Scheme. Eni actively collaborates on these issues with international entities like IETA. - Regarding Flaring regulatory risks, eni monitors flaring reduction policy evolutions in the countries where it operates and proactively interacts with national governments in order to find viable solutions like, for example, utilizing associated gas for power generation in the host countries. The interaction with national governments and national oil companies is direct or through the GGFR (Global Gas Flaring Reduction), a World Bank's led initiative.

**3.7 Please explain why you do not consider your company to be exposed to significant regulatory risks - current and/or anticipated.**

3.8

Please explain why not.

Further Information

Attachments

Page: Physical Risks

**4.1 Do current and/or anticipated physical impacts of climate change present significant risks to your company?**

Yes

Do you want to answer using:

A text box

4.2A

**What are the current and/or anticipated significant physical risks, and their associated countries/regions and timescales?**

Risk	Region/Country	Timescale in Years	Comment

4.2B

**What are the current and/or anticipated significant physical risks, and their associated countries/regions and timescales?**

We consider our company to be exposed to physical risks of climate change. Rising temperatures have already altered Earth's climate, with consequences for: hydrology and water resources; agriculture and food security; terrestrial and freshwater ecosystems; coastal zones and marine ecosystems; and human health. Predictions of climate change are uncertain. The scope and scale of effects will depend on the degree and speed of adaptation of countries, economies,

and people, and will differ by region. Climatologists broadly agree however that likely effects include: melting of glaciers and ice caps, higher sea levels (up to 1m by 2100 in the base case, and ultimately by 4-7m should half of Greenland and the West Antarctic Ice Sheet melt), and more frequent and violent weather events. Regions: eni operates in some areas at high risk (with short or medium-long perspective) such as Polar Regions, Far and Middle East, Africa and the Gulf of Mexico. Timescale: some physical risks are already occurring.

---

#### 4.3

**Describe the ways in which the identified risks affect or could affect your business and your value chain.**

Extreme events can impacts on eni's plants and affect the safety of people and environment. Extreme events may also generate significant economic losses to the company due to production interruption and clean up/remediation costs. Finally, climate change can have impacts on water stressed areas in some contexts where eni operates.

---

**4.4Are there financial implications associated with the identified risks?**

Yes

---

**4.5Please describe them.**

These physical risks could affect eni's business and value chain and the financial implications are generally estimated on the basis of a number of days of lost production for each site.

---

**4.6Describe any actions the company has taken or plans to take to manage or adapt to the risks that have been identified, including the cost of those actions.**

Risks related to the extreme weather events and changing weather pattern are assessed throughout the project lifecycle and production phase by means of proper risk identification and implementation of proper counter actions. Eni has a two Crisis Units for the management of emergencies and has stipulated contracts with external consultants for the continuous monitoring of weather conditions in order to be ready for immediate responses to risky situations. Industrial risks related to accidents due to natural events (this risk can cause damage to properties and/or business interruption which may generate significant harm to the company), are assessed and managed as well by: - Identifying and quantifying economically the exposure to risk and subsequent definition of hedging policies - Minimizing economic losses through activities aimed at preventing possible causes and mitigating the effects. Finally, eni is mapping its production plants with respect to present and predicted water stressed areas in relation also to climate change effects. Target actions are prioritized and focused on local situations, depending on site characteristics and technical solution.

---

**4.7Please explain why you do not consider your company to be exposed to significant physical risks - current and/or anticipated.**

**4.8Please explain why not.**

**Further Information**

**Attachments**

**Page: Other risks**

---

#### 5.1

**Does climate change present other significant risks - current and/or anticipated - for your company?**

Yes

---

**Do you want to answer using:**

A text box

---

#### 5.2A

---

**What are the current and/or anticipated other significant risks, and their associated countries/regions and timescales?**

Risk	Region/Country	Timescale in Years	Comment

---

**5.2B**

**What are the current and/or anticipated other significant risks, and their associated countries/regions and timescales?**

We consider our company to be exposed to other risks, such as market and reputation risks. Regions: the industrialized countries can be considered the most affected areas. Timescale: from present up to 2030.

---

**5.3 Describe the ways in which the identified risks affect or could affect your business and your value chain.**

- As per market risk, the inefficiency caused by the distortion related to the growing energy demand and the most stringent environmental regulations. In fact, according to World Energy Outlook 2009 (WEO 2009) long term reference scenario (up to 2030), primary energy demand will grow from 12,013 million toe to 16,790 million toe, with fossil fuels still satisfying 80% of the demand. The aim to pursue a GHG reduction/stabilization target, mainly supported by industrialized economies and Europe in particular, shall be balanced with the objective of reducing energy dependence, that is one of the main issues for energy-intensive countries (North America and OECD) and for those with a high economic growth (India and China). This last objective is in conflict with the environmental one, as it could cause an increasing use of the more polluting national energy sources (e.g. coal in China). - Negative reputation implications of the oil sector due to climate change (e.g. production of heavy and extra-heavy oil or oil sands) can affect some of our businesses.

---

**5.4 Are there financial implications associated with the identified risks?**

Yes

---

**5.5**

**Please describe them.**

Though R&D investments on renewable and low carbon technology currently represent mainly a cost, in the future can mitigate reputation and market diversification risks. The promotion of natural gas and the implementation of energy efficiency and flaring down activities can enable eni to reduce both market (valorisation of a low carbon source) and reputation risks.

---

**5.6**

**Describe any actions the company has taken or plans to take to manage or adapt to the other risks that have been identified, including the costs of those actions.**

Eni is undertaking actions in order to mitigate market and reputation risks. Eni's strategy for the coming years confirms and strengthens its commitment in the following fields: - achievement of a target to reduce flaring emissions; - design and implementation of programs aimed at achieving improvements in the efficiency of industrial plants, from processing to production; - gradual replacement of high carbon content fuels with other cleaner fuels, promoting the use of natural gas in particular; - research and development of technological options, such as geological confinement, biofixation of CO2 as well as renewable sources; - promotion of energy-saving behaviour among suppliers, consumers and customers.

---

**5.7**

**Explain why you do not consider your company to be exposed to other significant risks - current and/or anticipated.**

**5.8 Please explain why not.**

**Further Information**

---

**Attachments**

---

**Page: Regulatory Opportunities**

---

**6.1**

**Do current and/or anticipated regulatory requirements related to climate change present significant opportunities for your company?**

Yes

---

**Do you want to answer using:**

A text box

**6.2A**

**What are the current and/or anticipated significant regulatory opportunities and their associated countries/regions and timescales?**

Opportunities	Region/Country	Timescale in Years	Comment

---

**6.2B What are the current and/or anticipated significant regulatory opportunities and their associated countries/regions and timescales?**

Regulatory developments present some opportunities for eni like some flaring down activities, carbon credits and white certificates, low carbon technologies development. Regions: Europe, Africa, Asia, Timescale: actions implemented to 2020

**6.3**

**Describe the ways in which the identified opportunities affect or could affect your business and your value chain.**

Considering that climate change is now high on the international agenda, for business, tackling climate change is not just a necessity but also an opportunity for implementing green businesses, developing new clean technologies and exporting sustainable development to developing countries. For example, investing within the producing countries in order to capture and use associated gas generates sustainable development in these countries (for instance power generation capacity enhancement), reduce negative impacts on the environment, and enables eni to valorise a precious resource (associated gas). Moreover, considering the post-2012 uncertainties associated with the use of carbon credits (CERs/ERUs) allowed to European operators, eni is actively implementing green opportunities within its existing operations. With regard to a medium-long perspective, eni is considering the opportunities offered by the Carbon Capture & Storage (CCS) as a mean to give a sustainable future to fossil fuels. Italy has set mandatory targets upon electricity and natural gas distribution operators in order to increase energy efficiency and reduce GHG emissions. The targets are expressed as amounts of white certificates, each of which represents a certified saving of 1 toe. Italgas, Eni's subsidiary leader in natural gas distribution in Italy, is an obliged subject and has to deliver each year a certain amount of certificates, proportional to its share of distributed energy.

---

**6.4 Are there financial implications associated with the identified opportunities?**

Yes

**6.5**

**Please describe them.**

Flaring down activities, carbon offsets and energy saving projects need significant investments that in the next years can result in additional incomes, coming from the valorization of the associated gas, carbon credits and white certificates.

---

**6.6**

**Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.**

Eni is concentrating its effort to curb GHG emissions by mean of a significant investing program that includes gas flaring down, development of a carbon offsets portfolio, CCS, energy saving projects and the realization of efficiency gas thermoelectric plants: - Eni has identified a challenging a target for flaring reduction in order to valorise a precious resource, to avoid local pollution, to reduce CO2 emission and to give a major contribution to the development of host countries (an example over all is power generation). Flaring-down initiatives, in progress in Algeria, Angola, Congo, Libya, Nigeria, Tunisia, Turkmenistan and Kazakhstan, have entailed a 0.5 billion € investment and will be completed by 2013 through an additional investment of over 1.1 billion € - Eni has a carbon offset portfolio that is currently developing. Depending mainly on the outcomes of negotiations on post 2012 and EU Emissions Trading Scheme - phase 3, this portfolio can generate interesting opportunities for leveraging carbon compliance costs. - Regarding the geological storage of carbon dioxide, eni is focused on backing both the Italian and European regulators in implementing a support framework to remove obstacles to the full development of CCS technology. In 2008, eni signed a strategic cooperation agreement with Enel for the joint development of CCS technologies aimed at accelerating the implementation of the entire technology package required for the capture, transfer and confinement of carbon dioxide. A joint pilot project is on-going. - Regarding the white certificates scheme, eni G&P Division provides technical support to final customers helping them to increase their energy efficiency, also to obtain white certificates when feasible according to Italian Law.

---

**6.7**

**Explain why you do not consider your company to be presented with significant opportunities - current and/or anticipated.**

**6.8**

**Please explain why not.**

**Further Information**

**Attachments**

**Page: Physical Opportunities**

---

**7.1 Do current and/or anticipated physical impacts of climate change present significant opportunities for your company?**

No

---

**Do you want to answer using:**

The table below

---

**7.2A What are the current and/or anticipated significant physical opportunities and their associated countries/regions and timescales?**

Opportunities	Region/Country	Timescale in Years	Comment

---

**7.2B**

**What are the current and/or anticipated significant physical opportunities and their associated countries/regions and timescales?**

**7.3 Describe the ways in which the identified opportunities affect or could affect your business and your value chain.**

**7.4**

---

**Are there financial implications associated with the identified opportunities?**

7.5

Please describe them.

7.6

Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.

7.7

Explain why you do not consider your company to be presented with significant opportunities - current and/or anticipated.

Physical changes do not present significant opportunities for eni. Indeed, physical changes from climate change represent, primarily, a risk for the oil and gas industry (for instance, damaging fundamental infrastructures situated in critical areas), though on the other hand, it is evident that some extreme events could (in the short term) even force up oil & gas prices (e.g. Hurricane Katrina in 2005), and therefore increase oil producers' revenues. Short term risks are managed by means of proper procedures included in our Integrated Management System, thus enabling eni to reduce the risks related to extreme events and thus turn into an opportunity, if compared to other competitors, the way we manage physical impacts of climate change. On the long term, eni considers - as stated by the Stern Review - that the medium and long term cost of inaction on climate change is much higher than that of action. In general, understanding climate change regional impacts is still in the early stages, but, with a mid-long term perspective, areas thought to be at very high risk include polar region, the Far and Middle East, Gulf of Mexico and Africa. This can have significant implications on energy supply, major societal dislocation, and consequent environmental, economic, and security consequences worldwide. Eni, which was one of the first companies to recognise and invest in relations with the producing countries, has identified opportunities for a new model of cooperation in order to support the countries at high climate risk in tackling the related consequences. Eni is offering proven and tangible benefits as the creation of opportunities for social and economic development in the countries in which it operates.

---

7.8

Please explain why not.

Further Information

Attachments

**Page: Other Opportunities**

---

**8.1 Does climate change present other significant opportunities - current and/or anticipated - for your company?**

Yes

---

Do you want to answer using:

A text box

---

**8.2A What are the current and/or anticipated other significant opportunities and their associated countries/regions and timescales?**

Opportunities	Region/Country	Timescale in Years	Comment

---

8.2B

---

**What are the current and/or anticipated other significant opportunities and their associated countries/regions and timescales?**

Significant opportunities can derive from the development of natural gas/LNG market and R&D programmes on low carbon technologies and renewables. Geographical area: Europe, Africa, Middle East, North America Timescale: For R&D opportunities results can be achieved in the mid long term, while natural gas and LNG market targets achievement has a shorter timescale.

---

**8.3****Describe the ways in which the identified opportunities affect or could affect your business and your value chain.**

Natural gas will represent the fossil source with the highest growth, and so one of the most important opportunities. Of all hydrocarbons, natural gas represents the product with the lowest degree of polluting emissions and the lowest amount of carbon. Currently, almost one quarter of primary energy requirements in Europe are met by natural gas. Therefore, for those companies operating in the sector of natural gas, there are great opportunities of both reducing CO2 emissions and increasing business activity. In the next few years, the priorities in European and US energy policies will also be promoting more responsible consumption styles, improving energy efficiency and spreading the use of renewable sources. Being a leader on marketing sustainable fuels and developing sustainable technologies can generate market and reputation opportunities for eni.

---

**8.4 Are there financial implications associated with the identified opportunities?**

Yes

---

**8.5****Please describe them.**

Natural gas and LNG market opportunities can generate value in the short – mid term. R&D activities have a broader timeline in order to generate tangible business benefits. Regarding expenditures, over 153 million euro will be invested in the next years to set up photovoltaic and biomass plants with an installed power of respectively 16.7 MWp and 25 MW.

---

**8.6 Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.**

-Natural gas market: Eni boasts European leadership in the gas market leveraging on synergies from its fully integrated presence along the whole gas value chain: supply, transport, distribution, storage and marketing of natural gas and power generation and sale. Its large and diversified gas supply portfolio, market knowledge, long-term relationships with key producing countries, and integration with the Exploration & Production segment represent competitive advantages. Against the backdrop of an uncertain demand outlook over the next 2-3 years and increasingly strong competitive pressures both on European and Italian markets, Eni intends to maintain the profitability of the business targeting continuing sales growth on European markets. In Italy, Eni aims at preserving profitability and market shares. Expected results will be supported by continuously improving efficiency and efficacy of operations and stable returns from regulated businesses. By 2013 Eni intends to increase worldwide gas sales by approximately 14 bcm (from 104 to 118 bcm) leveraging on additional synergies expected from the integration with Distrigas (Belgium) and strengthening both its direct presence and strategic partnerships in selected European markets, particularly in France, Benelux and Germany. We intend to optimize our supply portfolio, including the renegotiation of long-term supply contracts, and improving operating flexibility so as to enhance the competitiveness of Eni's offer. The high degree of integration with the Exploration & Production division will enable the Company to achieve growth options on the gas market and monetize equity gas reserves. These actions, coupled with tight cost control will allow Eni to face an extremely challenging trading environment that is expected over the next two to three years, in particular in 2010 when the first signs of recovery in gas demand are expected to emerge. Beyond the timeline of our plan, European demand is expected to grow driven by the fundamental trends deriving from the environmental compatibility of natural gas, the depletion of European reserves and economic growth. - Research and development Besides its effort to improve continuously the efficiency of its core business, eni has also chosen to invest in research into solar energy and biofuels along with the sustainable use of other available resources. All these activities are conducted into a program named "Along With Petroleum" (AWP). Among these projects, one that is particularly worthy of mention, for breadth of objectives and programme duration, is the strategic alliance with the Massachusetts Institute of Technology (MIT) of Boston. The core part of the agreement includes the "Solar Frontiers Research Program" for the development of advanced solar technologies. In 2009 eni confirmed its collaboration with the "Methane to Markets - M2M" Partnership. The main activities developed are: "Eni's success story" Article published on the M2M homepage, 2004-2009 eni's "Accomplishment Report" as member of M2M

Project Network, collaboration with the Italian Environmental Ministry in definition of “V National Communication on Climate Change” for the United Nations Framework Convention on Climate Change.

---

8.7

**Explain why you do not consider your company to be presented with significant opportunities - current and/or anticipated.**

8.8

**Please explain why not.**

**Further Information**

**Attachments**

**Module: Strategy**

**Page: Strategy**

---

9.1

**Please describe how your overall group business strategy links with actions taken on risks and opportunities (identified in questions 3 to 8), including any emissions reduction targets or achievements, public policy engagement and external communications.**

On the causes of climate change, eni is conscious of the need to act. The range of options available for reducing greenhouse gas emissions from fossil fuels is extensive: there are, for example, a great many technological solutions that can be adopted that are different in terms of cost, time frame for development and potential. Eni has decided to act on several fronts, putting in place a series of measures that together constitute an action plan for the mitigation of climate change. This includes actions, some of which give, or will give, results in the short term, such as the gradual elimination of gas flaring (the burning of associated gas from petroleum extraction) and a wide range of energy saving initiatives. This is a concrete and relevant commitment if one considers that the project for the elimination of gas flaring on its own will lead to a reduction of 70% of the emissions by 2012 vs 2007 level. Projects for the capture and sequestration of carbon dioxide, the development of renewables and new energy vectors are just some of the other examples of eni's commitment to the development of new technologies aimed at generating long-term benefits. Moreover, eni aims to expand its actions from the reduction of greenhouse gas emissions also to the consumers of fuels. In this respect, Eni has launched a media energy saving awareness campaigns in order to spread the information on the efficient use of the energy sources. The fact that, in the short and medium term, fossil fuels cannot be substituted is something that we absolutely cannot ignore in a strategy to mitigate the effects of climate change. A serious energy saving plan is therefore the most effective way of immediately reducing energy consumption with low investment, in some cases wholly marginal, costs, and with truly substantial potential. Eni is investing substantially on an issue that it considers a priority, while attempting to achieve ever-growing levels of efficiency. In the future prospect of a gradual replacement of fossil fuels by new types of energy, eni is promoting investments in research in the area of renewables such as solar energy and biomass, in the belief that these have greater potential for large-scale exploitation, in a way that is economically sustainable in the medium-long term. The carbon management strategy for the coming years confirms and strengthens eni's commitment in the following fields: • achievement of a target to reduce flaring emissions; • ongoing reduction in GHG emission levels in the various areas of activity (hydrocarbons production, energy generation, refining, and gas transmission); • design and implementation of programs aimed at achieving ongoing improvements in the efficiency of industrial plants, from processing to production; • gradual replacement of high carbon content fuels with other cleaner fuels, promoting the use of natural gas in particular; • research and development of technological options, such as geological confinement, biofixation of CO2 and renewable sources; • promotion of energy-saving behaviour among suppliers, consumers and customers. The next business plan (2011-2014) will provide for an overall emission reduction target in order to strengthen of the carbon management strategy . In terms of controlling indirect emissions (known as “scope 3’ emissions), eni will extend the reporting of emissions to those linked to products purchased and core contracted activities. Eni is carrying out an analysis of the supply chain, focusing on the carbon footprint of contractors with the highest impact, as part of a sustainable supplier management strategy. For this purpose eni joined CDP-Supply Chain Program.

---

**Further Information**

**Attachments**

9.2

Do you have a current emissions reduction target?

Yes

9.3

Please explain why not and forecast how your Scope 1 and Scope 2 emissions will change over the next 5 years. (If you do not have a target)

9.4

Please give details of the target(s) you are developing and when you expect to announce it/them. (If you are in the process of developing a target)

9.5

Please explain if you intend to set a new target. (If you have had a target and the date for completing it fell within your reporting year, please answer questions 9.5 and 9.6)

9.6

Please complete the table. (If you have a current emissions reduction target or have a recently completed target)

Target Type	Value of Target	Unit	Base year	Emissions in base year (metric tonnes CO2-e)	Target Year	GHGs and GHG sources to which the target applies	Target met?	Comment
Stabilization target	70.00	% reduction from base year	2007	19923000.00000	2012	Scope 1	Target ongoing	The objective of the gas flaring projects that are currently underway is a 70% reduction by 2012 in gas flaring emissions, compared with the 2007. Thanks to this objective, the CO2eq emissions index per ktoe produced will be reduced by 40% by 2013. As a consequence for the second consecutive year (-8% in 2009 compared with 2008) the greenhouse gas emissions decreased confirming the

Target Type	Value of Target	Unit	Base year	Emissions in base year (metric tonnes CO2-e)	Target Year	GHGs and GHG sources to which the target applies	Target met?	Comment
								soundness of eni's industrial choices and ensuring the achievement of reduction objectives. In particular, the Exploration & Production sector – which accounts for roughly 50% of the emissions in eni – has registered a 13% emissions reduction compared with 2008, thanks to a decrease in flaring emissions (-20%; 2009 flaring emissions are 13.25 Mln ton CO2eq) and venting emissions (-9%) while the consumption of energy has remained in line with the previous year.
Stabilization target	415.00	Other: gCO2/KWheq				Scope 1	Target ongoing	Energy efficiency projects have represented for over 7 years a constant commitment within eni's downstream activities where the objective for a rational use of energy (power) is pursued through the use of the best technologies and research of the best process solutions. In the power sector, the amount of CO2 emissions per kW of equivalent products, is roughly 1/3 lower than the average Italian value, and in the four-year period between 2010 and 2013 it will be maintained at levels lower than 415 g CO2/kWheq. The investments aimed at consistently improving the performance of generated electric power will continue with the construction

Target Type	Value of Target	Unit	Base year	Emissions in base year (metric tonnes CO2-e)	Target Year	GHGs and GHG sources to which the target applies	Target met?	Comment
								of a new turbogas facility in Taranto and with significant interventions on existing plants. Note: the target (415 g CO2/kWheq) is not absolute terms, but in terms of performance index. The absolute savings is variable and dependant from production.

### Further Information

The main flaring down initiatives are: - In Algeria, the ROM-MPP2 (Multi-Phase Pumps) project will allow the associated gas from a number of oil fields in the Algerian desert to be recovered and transmitted via a new 37 km pipeline to the oil center for final processing. The associated gas will be reinjected into the BRSW field. - In Congo, the integrated M'Boundi onshore field project provides for associated gas to be recovered by laying a 55 km pipeline to transmit it from M'Boundi to the Djeno area in order to fuel two power stations: the existing Centrale Electrique Djeno (CED) with power doubled from 25 to 50 MW and the new 300 MW Centrale Electrique du Congo (CEC) (will become operative during 2010) expandable to 450 MW according to domestic demand for energy. The project will substantially increase the capacity of Congo's thermoelectric system. - In Libya, the Bouri Gas Utilization project is intended to recover associated gas from the Bouri offshore field (120 km from Tripoli), all of which is currently flared off. An initial phase of the project requires the acid gas to be removed and the resulting sweet gas to be transmitted to the onshore Mellitah site for sale. The second phase is to reinject the acid gas into the reservoir. - In Nigeria, activity is continuing in the context of the NAOC (Nigerian Agip Oil Company) Gas Master Plan. The plan provides for the implementation of various projects involving the construction and upgrading of the network of pipelines, compression stations and processing centers. The purpose of these projects is to reduce the ratio between flared gas and total gas produced, and to maximize the recovery of associated gas to be transmitted, mainly to the Bonny Island N-LNG (Nigerian Liquefied Natural Gas) terminal and to local gas utilization projects. - In Tunisia, the integrated Gaz du Sud project has allowed flaring to be reduced at the Adam, Oued Zar and Djebel Grouz concessions, increasing the current supply of gas to the STEG gas pipeline for the domestic Tunisian market.

### Attachments

**Page: Strategy - Emission Reduction Activities**

¿

Is question 9.7 relevant for your company?

Yes

9.7

Please use the table below to describe your company's actions to reduce its GHG emissions.

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO2-e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
Energy saving initiatives in Refining sector (projects completed in 2009)	Achieved	17	Other: ktoe/y	50800	Achieved	9437000	EUR(€)	6095000	EUR(€)	Achieved	2009
Energy saving initiatives in Petrolchemical sector (projects completed in 2009)	Achieved	5	Other: ktoe/y	11300	Achieved	7467000	EUR(€)	1690000	EUR(€)	Achieved	2009
Energy saving initiatives in Refining sector (planned projects 2010-2013)	Not relevant	60	Other: ktoe/y	180000			EUR(€)	21636000	EUR(€)	Not relevant	2010-2013 note: Investment number is confidential
Energy saving initiatives in Petrolchemical sector (planned projects 2010-2013)	Not relevant	77	Other: ktoe/y	200000			EUR(€)	27357000	EUR(€)	Not relevant	2010-2013 note: Investment number is confidential
Flaring down reduction	Not relevant	3021	Other: MSCM			160000000	EUR(€)		EUR(€)	Not relevant	2007-2008= 3380 metric tonnes CO2 2008-2009= 3290 metric tonnes CO2 note: Annual emission reduction in metric tonnes CO2-e

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO2-e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings	12. Timescale of actions & associated investments (if relevant)
											and monetary savings are confidentials

9.8

Please explain why not.

9.9

Please provide any other information you consider necessary to describe your emission reduction activities.

- Energy efficiency projects have represented for over 6 years a constant commitment within eni's downstream activities where the objective for a rational use of energy (power) is pursued through the use of the best technologies and research of the best process solutions. In the electrical sector, the amount of CO2 emissions per kWh of equivalent products, is roughly 1/3 lower than the average Italian value, and in the four-year period between 2010 and 2013 it will be maintained at levels lower than 415 g CO2/ kWh. In the refining sector, the savings amounted to approximately 17 ktoe in 2009. In the petrochemical sector, the implementation of the projects identified within the industrial plan will generate increased savings of 77 ktoe/year (equal to approximately 200 kton/year of CO2). - With regard to gas flaring reduction projects, the objective is a 70% reduction by 2012 in gas flaring emissions, compared with the 2007. In Africa, Eni has been the first company to undertake significant flaring-down activities through the re-injection of associated gas in the reservoir and its use in energy production, promoting and encouraging the spread of eco-friendly technology. Flaring-down initiatives, are located in Algeria, Angola, Congo, Libya, Nigeria, Tunisia, Turkmenistan and Kazakhstan. - On 7th July 2009, Eni signed an agreement with the Italian Ministry of Environment including a wide set of initiatives about energy efficiency, renewables, R&D, carbon capture and storage, natural gas in road transport. The agreement took place in the framework of the "Pact for Environment" which was signed by Eni and other 10 companies of national relevance, including Enel, Edison and Terna. The Agreement regarded investments for almost 450 M€ the expected results of the energy saving initiatives included avoided consumption for about 120 ktoe in it were, by 2013 onwards: emissions for about 330 ktCO2 Also, important investments in renewable power capacity were foreseen; finally, over than 100 M€ were for R&D in the fields of renewable energy and CCS. - In 2007, Eni has started a program of consolidation of its ICT servers through the virtualization of 1,000 Intel servers into 50 physical servers, with an emissions reduction about 1,100 tCO2e/year. In 2008 400 UNIX servers were consolidated on 26 physical servers, with emissions reduction of about 1,810 tCO2e/year. In 2009, test activity has been started to gain a new 'dynamic' infrastructure schema. Dynamic assignment of resources (provisioning / deprovisioning, till powering off of unused server) will lead to an infrastructure model designed on "on demand" from the actual "highest peak" model. Eni also joined a financed EU project "FIT4Green" which aims to develop new energy-aware SW components to be implemented in existing automation tools, to obtain a 20% saving versus standard consumption rates of power&cooling systems for IT. Regarding the videoconferencing system, Eni headquarters relies on 630 fixed videoconferencing systems in meeting rooms and 370 portable systems for smaller employee groups that have been installed since 2005. Videocall integrated with the VoIP phone system is also available for many users in Eni (2,000 webcam on 30,000 IP phones in 2009; 4,000 expected in 2010). In 2009, more than 150,000 videoconferences and 700,000 videocalls took place, thus saving many trips, for an estimated emissions reduction of 24,000 tCO2e/year. Eni is also building a new 30MW Green Data Center to host all IT servers. A DC system turns electricity into IT and heat, its efficiency is measured in terms of Power Usage Effectiveness (PUE). In a conventional DC, PUE is about 3.3 (that means that for 1W for IT, 3.3W are used for other uses) while green DC's PUE is about 1.4. Eni targets a PUE of 1.2. The estimated emissions reduction deriving from the "Green Data Center" project, in operation from 2012, is in the range of 300,000 tCO2e/year. The project will be developed using the latest and most effective technologies, especially about cooling techniques, using only external air during most of the year.

9.10

---

**Do you engage with policy makers on possible responses to climate change including taxation, regulation and carbon trading?**

Yes

---

**9.11**

**Please describe.**

The Corporate HSE Department and the Public Affairs Department collaborate with both the Italian Ministries of Environment and Industry and the European Commission for the definition of the climate change framework at European and Italian levels and the development of the related legislation (Emissions Trading, CCS, Renewables, etc.). Eni's participation in the European and International policy-making process is also performed in conjunction with competitors or other industrial partners. This is also the case for its participation in National and European organizations that are direct interlocutors of the Regulatory Authorities. Confindustria (the Italian association of industrial producers), Assoelettrica (the Italian association of power producers), Unione Petrolifera (the Italian association of refiners), UNICE (The European employers confederation) and EUROPIA (the European government affairs organisation of the oil refining and marketing industry in the EU and EEA) are just some examples of these organizations. Eni is also a partner of lobbying organizations or associations at European and International level such as IPIECA, IETA, GROCC, OGP, GGFR as well as a supporter of economic and scientific studies on the mitigation of and adaptation to climate change. Among the initiatives that are worthy to be mentioned, on 22 September 2009 the chief executive of Eni, Paolo Scaroni, gave a speech to the United Nations Leadership Forum on Climate Change, which was held at the headquarters of the United Nations in New York in the presence of the Secretary General Ban Ki-moon. Paolo Scaroni was both the only Italian and only CEO of an oil company to speak at the Forum. During the event, which was attended by world political and business leaders, the main issues under discussion included food security, water and solutions for energy demand. During the last century, low energy prices drove the world to adopt unacceptable energy consumption habits, and strongly limited the invention and adoption of more energy efficient technologies and tools. What's more, low energy prices have derailed both most plans for energy conservation, and the development of alternative sources of energy other than fossil fuels. Therefore, the world needs to interrupt the perception of energy as a cheap input to economic and social growth. Energy Efficiency and Research and Development on energy complementary sources are the two major tools to curb carbon emissions. The model presented by eni's CEO for a Global Climate Change Agreement is based on three main points: 1. a carbon tax affecting all economic sectors; 2. a cap & trade system to reinforce and optimize the effect of the carbon tax; 3. a mobile excise tax on end-use energy products. The scheme proposed envisages an agreement signed by most countries at the same time, that will soon be enforced by industrialized countries, and only later by emerging countries. Furthermore, the scheme links together the three, above mentioned elements. - First, a minimal carbon tax should be considered. In fact, giving a stable value to CO<sub>2</sub>, a carbon tax promptly affects investment decisions, accompanied by measures to off-set its effects on income distribution. - Cap & trade systems – that are made of complicated mechanisms and require many years of trial-and-error processes – could be implemented as complementary measures, with the aim of integrating and optimizing the effects of the carbon tax. - A complementary "mobile excise tax" on end-use energy products derived from fossil fuels. Such a tax should be applied when product prices fall below the level that boosts R&D and energy efficiency. It would shelter environmental policies from the energy prices volatility. A carbon tariff should also be part of the scheme, to be applied only if emerging countries do not respect their later starting point. For further informations: [http://www.eni.com/en\\_IT/media/media-archive/speeches-interviews/scaroni-at-the-un.shtml](http://www.eni.com/en_IT/media/media-archive/speeches-interviews/scaroni-at-the-un.shtml)

---

**Further Information**

**Attachments**

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

**Page: Emissions Boundary - (1 Jan 2008 - 31 Dec 2008)**

---

**10.1**

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

**10.2**

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

**10.3**

Please complete the following table.

Source	Scope	Explain why the source is excluded

#### Further Information

please refer to CDP 2009

#### Attachments

**Page: Emissions Boundary - (1 Jan 2009 - 31 Dec 2009)**

#### 10.1

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

#### 10.2

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

Yes

#### 10.3

Please complete the following table.

Source	Scope	Explain why the source is excluded
E&P Turkmenistan Subsidiary	Scope 1 and 2	Eni is working to include Turkmenistan recently acquired assets emissions in its boundaries.

#### Further Information

Eni operates in many activity sectors: exploration and production, refining and marketing, gas transmission and distribution, petrochemical manufacturing, power generation, engineering and construction services. The GHG (scope1-2) reporting boundary includes all worldwide companies over which financial control is exercised, as well as the joint-ventures in which eni's affiliates have operator role. Moreover eni consolidates also the companies controlled with capital stocks < 50%, having a dominant influence on the Shareholders. Every year each Business Unit defines own reporting boundary, considering the acquisitions and sales occurred in the reporting year and pointing out the relevant change in comparison to the previous year. For exploration and production sector, the GHG reporting boundary is complete and accurate for the activities of the Divisions and Companies where eni is operator, and 100% operated data are published in our Sustainability report because we consider this methodology more appropriate for performance tracking, as having operational control suggests a greater degree of influence than merely holding a share of the equity. On the other hand, the Exploration and Production Division recognizes the importance of equity share reporting, for liability and risk management and for alignment with the financial accounting. In 2009 the ghg emission data coverage of non operated activities, where eni has equity share, was not yet complete, for this reason eni prefers to disclose only the 100% operated data. Eni has started the process of improving the equity share approach also (in particular non operated activities are most critical for the data gathering) by issuing a new procedure (GHG Revised Protocol) and by modifying our IT accounting and reporting system.

#### Attachments

**Page: Methodology - (1 Jan 2008 - 31 Dec 2008)**

11.1a

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions and/or describe the procedure you have used (in the text box in 11.1b below).

Please select the published methodologies that you use.

11.1b

Please describe the procedure that you use.

11.2

Please also provide the names of and links to any calculation tools used.

Please select the calculation tools used.

11.3

Please give the global warming potentials you have applied and their origin.

Gas	Reference	GWP

11.4

Please give the emission factors you have applied and their origin.

Fuel/Material	Emission Factor	Unit	Reference

#### Further Information

please refer to CDP 2009

#### Attachments

[Page: Methodology - \(1 Jan 2009 - 31 Dec 2009\)](#)

11.1a

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions and/or describe the procedure you have used (in the text box in 11.1b below).

Please select the published methodologies that you use.

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

US EPA Climate Leaders: Direct Emissions from Stationary Combustion

Other: American Petroleum Industry (API) "Compendium of Greenhouse Gas Emissions Estimation Methodologies for the Oil and Gas Industry", August 2009; EU Emission Trading Scheme "CO2 reporting Guidelines" (UK and Italy); Gas Research Institute and US Environmental Protection Agency (GRI), software and reports; Intergovernmental Panel on Climate Change (IPCC), Guidelines for National Greenhouse Gas Inventories; US Environmental Protection Agency (EPA), Protocol for Equipment Leak Emission Estimates, EPA Tanks software; E&P Forum, Methods for Estimating Atmospheric Emissions from E&P Operations; US Environmental Protection Agency (EPA), Climate Leaders GHG

**Please select the published methodologies that you use.**

inventory Protocol Core Module Guidance: Optional emissions from commuting, business travel and product transport, May 2008; Specific internal procedures developed by eni's business units that are not well represented in the recognized standards, for example Snamreagas, the eni's Italian Gas Transmission Company, has developed an own protocol for fugitive emission calculation.

**11.1b**

**Please describe the procedure that you use.**

Eni has adopted its own GHG Accounting and Reporting Protocol for the monitoring of worldwide GHG emissions since 2004. On February 2010, Eni issued an updated version after the revision of the GHG protocol performed in 2009. This protocol is in line with EU Emissions Trading requirements, international standards and industry best practices, currently represented by the World Business Council for Sustainable Development (WBCSD) / World Resources Institute (WRI) "GHG Protocol Initiative". The Protocol addresses direct and indirect emissions associated with Eni's activities, and defines the GHG performance metrics to track the trends and forecast per business sectors. This GHG reporting protocol (the Protocol) provides guideline for developing and maintaining Eni GHG emissions inventory consistent with current regulation and best practices, it provides a framework for: (a) complete and reliable reporting of GHG data at both group and site level, enabling Eni to report on its Group performance, and (b) participation in emissions trading schemes and other voluntary and/or mandatory initiatives. The Protocol supports data management systems designed to optimise the integrity of the reported data. Eni accounts, in particular, carbon dioxide CO<sub>2</sub>, methane CH<sub>4</sub> and nitrous oxide N<sub>2</sub>O emissions. The Global Warming Potentials (GWPs) used by eni are consistent with the IPCC Second Assessment Report (applicable until 2011) and with IPCC Fourth Assessment Report (applicable from 2012). In 2009 CO<sub>2</sub> equivalent calculation formula eni includes only CO<sub>2</sub> and CH<sub>4</sub> emission, but the accounting and reporting procedure for the other GHGs is improved and eni will evaluate the opportunity to extend the list of GHG included in the CO<sub>2</sub> eq. estimation. The GHG emissions are categorized in 3 groups: - direct emission (scope 1); - indirect emission derived from the energy purchase (scope 2) and the relevant sold average emission factors for country; - indirect emission (scope 3) from: business outsourced/contracted core activities products use (customer type) travels estimate At site level, the applied methodologies are selected among the following approaches: a. emissions direct measurement (in eni's sites this method is applicable only for fugitive emissions); b. emissions calculation based on activity data (fuel and energy consumption, gas volume) and specific emission factors derived from different fuel compositions and/or specific equipment/technology; c. emission calculation based on activity data (fuel and energy consumption, gas volume, production/process data ) and standard emission factors from the suitable guidelines. The more accurate methods have to be preferred in order to reduce the uncertainty and to optimize the applicability for each activity sectors.

**11.2**

**Please also provide the names of and links to any calculation tools used.**

**Please select the calculation tools used.**

IHS: opsInfo

Other: Since 2005, many of eni's installations adopt a corporate web-based database, named opsEnvironmental which includes the GHG module, opsGHG; this tool is certified at corporate level by Det Norske Veritas during the Emission Trading annual verification process. Furthermore, the accounting and reporting boundary includes also the other business activities not falling under the EU-ET Directive. The tool has been selected for the GHG emissions management in order to assure the bottom-up reporting from single facility to corporate level. The system assures compliance with the general accounting and reporting criteria of: - Transparency (in terms of calculations, assumptions and applied factors); Accuracy (quality assurance and quality control procedures); Completeness; Relevance (indirect emissions reported separately); Consistency (comparable data between operations and over time). The Central Database is placed on eni's platform in San Donato Milanese-Italy (Oracle), the software is web-based and has a user friendly interface. The tool allows: custom-made site configuration (high details), high reporting capability to support data certification and communication process, possible interface with other data gathering systems, user access/profile editing in compliance with eni's access policies. OpsGHG is managed and maintained at corporate level in order to assure the consistency with eni GHG Protocol methodologies. The opsGHG accounts for the 100% of the following eni's sectors: Refining; Petrochemical industry; Gas transmission and distribution system, and gas storage; Engineering and construction services; Power generation. opsGHG link: [http://www.environmental-expert.com/stse\\_resulteach\\_product.aspx?cid=3882&idproduct=3792](http://www.environmental-expert.com/stse_resulteach_product.aspx?cid=3882&idproduct=3792). The exploration and production division uses the opsGHG for the main European installations (n. 16) falling under EU-ET Directive and European Pollutant Release and Transfer Register, while e&p division has developed its own accounting and reporting system for the rest of worldwide operations, this tool name is SHERPA (Safety, Health, Environment, Radiation Protection Data Acquisition). It is a web-based database for the collection and reporting of all HSE data (except for incident data that are managed using INDACO-SYNERGI database). SHERPA includes a specific module for managing GHG data, in which all affiliates input their energy consumption, flaring, venting and compositional data on an installation basis and the GHG calculation is automatically performed according to the eni "GHG Accounting and Reporting Protocol" (doc. N. HSE/E/SAM (3.1.6)). The SHERPA database manages specific workflow and includes Editor profile (for data entry) and Reviewer/Approver

**Please select the calculation tools used.**

profiles normally assigned to HSE managers/General Managers that with their approval lock the data into the database so that the data cannot be further modified. SHERPA uses QlikView as dynamic reporting interface to analyze all the data. KPI and detailed analysis on the data can be performed, that helps QC/QA. This database is currently being integrated with the "HSE Integrated Corporate database" that will be managed by eni group. Full integration is foreseen by 3Q 2010.

**11.3**

**Please give the global warming potentials you have applied and their origin.**

Gas	Reference	GWP
Carbon dioxide	IPCC Second Assessment Report (SAR - 100 year)	1
Methane	IPCC Second Assessment Report (SAR - 100 year)	21
Nitrous oxide	IPCC Second Assessment Report (SAR - 100 year)	310

**11.4**

**Please give the emission factors you have applied and their origin.**

Fuel/Material	Emission Factor	Unit	Reference
Natural gas	1.96	Other: kg CO2 /m3	CO2: Natural Gas - EU-ETS Italian Deliberation 14/2009
Refinery gas	3.12	metric tonnes CO2 per metric tonne	CO2: Refinery fuel gas - EU-ETS Italian Deliberation 14/2009
Gas/Diesel oil	3.17	metric tonnes CO2 per metric tonne	CO2: Diesel - EU-ETS Italian Deliberation 14/2009
Other: Flaring	1.86	Other: kg CO2 /m3	CO2: Flare combustion - eni protocol Rev.01
Other: Associated Gas	3.48	Other: kg CO2 /m3	CO2: Gas derived from oil - EU-ETS Italian Deliberation 14/2009
Other: Fuel Oil	3.16	metric tonnes CO2 per metric tonne	CO2: Fuel Oil - EU-ETS Italian Deliberation 14/2009
Other: Flared Gas	3.03	metric tonnes CO2 per metric tonne	CO2: Flared gas (butane) - EU-ETS Italian Deliberation 14/2009
Liquefied petroleum gas (LPG)	3.02	metric tonnes CO2 per metric tonne	CO2: LPG - EU-ETS Italian Deliberation 14/2009
Natural gas	54.60	Other: gr CH4 /tonne	CH4: Natural Gas API Compendium Table 4.4a AP-42 Tab 1.4.2 (7/98) converted by LHV=49.6 GJ/ton
Natural gas	0.04	Other: gr CH4 /m3	CH4: Boilers/Heaters/Furnaces natural gas Eni Protocol rev1 Tab.3-4
Natural gas	0.84	Other: gr CH4 /m3	CH4: Compression Gas turbines, Eni Protocol Rev.01 Tab D3-5
Refinery gas	1.43	Other: kg CH4 /tonne	CH4: Eni Protocol Refinery FG assumed to contain 30% mol of CH4 density = 0.75 Kg/Nm3 Destruction efficiency = 99.5%
Other: Flared Gas	0.60	Other: kg CH4 /m3	CH4: Flare combustion fuel gas, Eni Protocol (Tab D2-3 98 % conversion)
Gas/Diesel oil	0.18	Other: kg CH4 /tonne	CH4: Diesel combustion in engines: EEMS - Air emissions calculations-dec 2002
Other: Fuel Oil	0.65	Other: kg CH4 /tonne	CH4: Fuel Oil, API Compendium
Liquefied petroleum gas (LPG)	0.96	Other: gr CH4 /GJ	CH4: LPG API Compendium Tbl 4-4a
Natural gas	49.20	Other: gr N2O	N2O: Natural gas API Compendium Table 4-4a @ 50.208

Fuel/Material	Emission Factor	Unit	Reference
		/tonne	GJ/ton
Refinery gas	34.09	Other: gr N2O /tonne	N2O: Refinery FG EF as Natural Gas API Compendium Table 4.4a converted by 3,405E-5 ton/ton
Other: Flared Gas	0.07	Other: gr N2O /Sm3	N2O: Flare combustion process gas: Eni Protocol (default density=0.80306 kg/m3 and EEMS Tbl)
Other: Fuel Oil	90.80	Other: gr N2O /tonne	N2O: Fuel Oil, API Compendium
Liquefied petroleum gas (LPG)	4.42	Other: gr N2O /GJ	N2O: LPG, API Compendium

#### Further Information

Eni operates in many activity sectors: exploration and production, refining and marketing, gas transmission and distribution, petrochemical manufacturing, power generation, engineering and construction services, because of the complexity of the operations the complete list of used emission factors would be too long to include in the questionnaire, moreover they are reported in eni's "GHG Accounting and Reporting Protocol" and in the systems used for the accounting. The main applied emission factors are provided in table 11.4. The applied emission factors (EFs) are derived from many sources and refer to different estimation tiers. For instance, in combustion/flaring process the most accurate approach used for CO2 is obtained from the EF based on fuel composition data. In general, when no fuel composition data or GHG direct emission measurements are available for the CO2, CH4 and N2O calculation, equipment/source/operation, tabular EFs are taken from literature referring to the above mentioned eni's GHG Protocols.

#### Attachments

**Page: Emissions Scope 1 - (1 Jan 2008 - 31 Dec 2008)**

#### 12.1

**Please give your total gross global Scope 1 GHG emissions in metric tonnes of CO2-e.**

62427258

¿

**Is question 12.2 relevant to your company?**

#### 12.2

**Please break down your total gross global Scope 1 emissions in metric tonnes CO2-e by country/region.**

Country	Scope 1 Metric tonnes CO2-e

#### 12.3

**Please explain why not.**

#### 12.4

**Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 1 emissions by business division. (Only data for the current reporting year requested.)**

Business Division	Scope 1 Metric tonnes CO2-e
Exploration & Production	33645897
Gas & Power	14604659
Refining & Marketing	7739438

Business Division	Scope 1 Metric tonnes CO2-e
Petrochemicals	4900505
Engineering & Construction	1343320
Corporate and financial companies	94598
Others	98841

## 12.5

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 1 emissions by facility. (Only data for the current reporting year requested.)

Facilities	Scope 1 Metric tonnes CO2-e

¿

Is question 12.6 relevant to your company?

Yes

## 12.6

Please break down your total gross global Scope 1 emissions by GHG type. (Only data for the current reporting year requested.)

GHG Type	Scope 1 Emissions (Metric tonnes)	Scope 1 Emissions (Metric tonnes CO2-e)
CO2	54339507.00	54339507
CH4	385131.00	8087751

## 12.7

Please explain why not.

¿

Is question 12.8 relevant to your company?

Yes

## 12.8

Please give the total amount of fuel in MWh that your organization has consumed during the reporting year.

64102197

## 12.9

Please explain why not.

¿

Is question 12.10 relevant to your company?

Yes

## 12.10

Please complete the table by breaking down the total figure by fuel type.

Fuels	MWh
Natural gas	39736785.00
Refinery gas	12460064.00
Gas/Diesel oil	3531634.00
Other: Low Sulphur Content Fuel Oi	3152769.00
Petroleum coke	2014395.00
Other: High Sulphur Content Fuel Oil	1370080.00
Other: Other fuels	1205760.00
Other: FOK	459502.00
Other: Light distillates/gasoline	127355.00
Liquefied petroleum gas (LPG)	43852.00

12.11

Please explain why not.

12.12

Please estimate the level of uncertainty of the total gross global Scope 1 figure that you have supplied in answer to question 12.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.

Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
		please refer to CDP 2009

#### Further Information

Note ref. 12.1: The 2008 hystorical figure was updated; As reported in 2008 Sustainability Report, the e&p division includes the indirect emission (scope 3) from outsourced drilling activities in the total direct emission (scope 1) because they consider this emission amount strictly connected to oil&gas production; Note ref 12.2 - please refer to CDP 2009 Note ref 12.4: the 2008 historical data are updated for E&P and G&P because in 2009 the reporting boundary of E&P and G&P sectors changes, due to a company (STOGIT) moving from E&P to G&P boundary; Note ref 12.6: The breakdown for GHG type was not provided in the CDP 2009, so we report the breakdown for CO2 and CH4; Note ref 12.8/10: The used conversion factor: 1 MWh = 0.23 toe

#### Attachments

[Page: Emissions Scope 1 - \(1 Jan 2009 - 31 Dec 2009\)](#)

12.1

Please give your total gross global Scope 1 GHG emissions in metric tonnes of CO2-e.

57326278

¿

Is question 12.2 relevant to your company?

Yes

12.2

Please break down your total gross global Scope 1 emissions in metric tonnes CO2-e by country/region.

Country	Scope 1 Metric tonnes CO2-e
---------	-----------------------------

Country	Scope 1 Metric tonnes CO2-e
Other: Africa	25181659
Other: Europe	27567497
Other: America	896404
Other: Asia/Australasia	3578232
Other: Russia	102486

### 12.3

Please explain why not.

### 12.4

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 1 emissions by business division. (Only data for the current reporting year requested.)

Business Division	Scope 1 Metric tonnes CO2-e
Exploration & Production	29363258
Gas & Power	14595521
Refining & Marketing	7290198
Petrochemicals	4630933
Engineering & Construction	1285536
Corporate and financial companies	103382
Others	57450

### 12.5

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 1 emissions by facility. (Only data for the current reporting year requested.)

Facilities	Scope 1 Metric tonnes CO2-e
Eni GHG accounting and reporting system, opsGHG, account data at facility level for the main industrial plants, but at corporate level, GHG emission data are not always available per single facility. Eni operates in several activity sectors and in 77 countries, so because of the complexity and size of the operations, each Business Unit reports data with different aggregation level (site, production field, Subsidiary, Country). Eni doesn't disclose the GHG data break down for facilities because of the above mentioned gathering issues and competitiveness concerns.	

¿

Is question 12.6 relevant to your company?

Yes

### 12.6

Please break down your total gross global Scope 1 emissions by GHG type. (Only data for the current reporting year requested.)

GHG Type	Scope 1 Emissions (Metric tonnes)	Scope 1 Emissions (Metric tonnes CO2-e)
CO2	50853315.00	50853315
CH4	308236.00	6472963
N2O	879.00	

---

**12.7**

Please explain why not.

¿

Is question 12.8 relevant to your company?

Yes

---

**12.8**

Please give the total amount of fuel in MWh that your organization has consumed during the reporting year.

63510688

---

**12.9**

Please explain why not.

¿

Is question 12.10 relevant to your company?

Yes

---

**12.10**

Please complete the table by breaking down the total figure by fuel type.

Fuels	MWh
Natural gas	39851569.00
Refinery gas	11793053.00
Gas/Diesel oil	3415470.00
Other: Low Sulphur Content Fuel Oil	2832007.00
Petroleum coke	1921869.00
Other: High Sulphur Content Fuel Oil	1892885.00
Other: Other fuels	1079820.00
Other: FOK	617249.00
Other: Light distillates/gasoline	76250.00
Liquefied petroleum gas (LPG)	30515.00

---

**12.11**

Please explain why not.

**12.12**

Please estimate the level of uncertainty of the total gross global Scope 1 figure that you have supplied in answer to question 12.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.

Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
Other: Less than 5% for EU-ETS CO2 emission data (43% of total eni GHG emission); An overall	Data Gaps Assumptions Extrapolation Metering/	Since 2005, each Divisions/BU is equipped with a strong accounting and reporting tool in compliance with the certification requirements. The 59 eni installations under EU ETS regulation have adopted internal procedures in order to respond to/compliance with the

Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
uncertainty level is not available.	Measurement Constraints Sampling Published Emissions Factors	<p>allowed uncertainly fixed by the regulation and annually assured by an external verification. In case of failure of the measurement devices, the site must notify immediately the Competent Authority and the time of metering inaccuracies has to be reduced to the minimum level. Referring to the quality fuel composition data, the site has to assure a consistent sampling frequency: this value is obtained through statistical analysis of the composition data trend carried out for a reference year. The activity data uncertainly, calculated for CO2 emission of each plant, has to follow the ISO 5168:2005. The 2009 eni's EU-ETS GHG emission are 43% of total eni GHG emission, the overall uncertainly range associated to this figure is: -less than 5 % for sites with GHG emission &lt; 500,000 t CO2/y;-less than 2% for sites with GHG emission &gt; 500,000 t CO2/y. Eni assures a good level of data accuracy, for many installations specific uncertainty assessments have been developed in order to identify the main uncertainty sources in the data gathering, handling and calculation chain. The main identified contributors to the uncertainty ranges are: - For CO2 emissions from combustion: variations in fuel gas composition; -For CH4 emissions from venting and fugitive, applied average emission factors not always suitable for each type of installation and process conditions; -For CO2 equivalent emissions from Flaring and Venting: due to the operating conditions (high flow rate range and hydrocarbon composition variation) the direct measured volume and composition data are not always available. The other sources of errors that may occur include the following: - Missing or incomplete information regarding the emission sources inventory; Measurement methods; Calibration; Data acquisition and transmission; Data processing. The eni's best references are: - ISO/IEC Guide 98:1995 "Guide to the expression of uncertainly in measurement" and ISO 5168:2005 "Measurement of fluid flow - Procedures for the evaluation of uncertainties"; IPIECA "Addressing Uncertainty in Oil and Natural Gas Industry Greenhouse Gas Inventories", September 2009</p>

### Further Information

Note ref. 12.1: As reported in 2009 Sustainability Report, the e&p division includes the indirect emission (scope 3) from outsourced drilling activities in the total direct emission (scope 1) because they consider this emission amount strictly connected to oil&gas production. Probably the next reporting year eni will break up this part from the e&p scope 1 emission. Note ref 12.6: The N2O is accounted and disclosed, but not included in the total CO2 equivalent calculation, because in 2009 eni is developing the reporting boundary, adding N2O accounting. Eni will verify the accuracy of the methodologies implementation in order to guarantee the GHG data consistency. Note ref 12.8: The used conversion factor: 1 MWh = 0.23 toe Note ref 12.10: In 2009 the large amount of natural gas (63%) in the fuel mix consumption is a result of an intense and progressive fuel switch to low carbon intensity fuels that distinguishes eni activities, especially in the power generation and E&P sectors. The used conversion factor: 1 MWh = 0.23 toe

### Attachments

[Page: Emissions Scope 2 - \(1 Jan 2008 - 31 Dec 2008\)](#)

13.1

Please give your total gross global Scope 2 GHG emissions in metric tonnes of CO2-e.

¿

Is question 13.2 relevant to your company?

13.2

Please break down your total gross global Scope 2 emissions in metric tonnes of CO2-e by country/region.

Country	Metric tonnes CO2-e

13.3

Please explain why not.

13.4

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 2 emissions by business division. (Only data for the current reporting year requested.)

Business division name	Metric tonnes CO2-e

13.5

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 2 emissions by facility. (Only data for the current reporting year requested.)

Facility name	Metric tonnes CO2-e

¿

Is question 13.6 relevant to your company?

Yes

13.6

How much electricity, heat, steam, and cooling in MWh has your organization purchased for its own consumption during the reporting year?

Please supply data for these energy types.	MWh
Electricity	2227357
Heat	4585
Steam	619911

13.7

Please explain why not.

13.8

Please estimate the level of uncertainty of the total gross global Scope 2 figure that you have supplied in answer to question 13.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.

Uncertainty range	Main sources of uncertainty in your data	Please expand on the uncertainty in your data.
		Please refer to CDP 2009

## Further Information

Note ref 13.1/5: The 2008 scope 2 emission data are not comparable with 2009, because the scope 2 methodology applied in 2009 changed in data accounting boundary and use of emission factors. In 2009 the scope 2 was calculated only with the Italian average emission factors, due to the high percentage of Italian purchased energy consumption on the total worldwide amount. Please refer to CDP 2009; Note ref. 13.6: the 2008 historical data are updated excluding electricity trading (in particular referring to the gas and power division).

## Attachments

**Page: Emissions Scope 2 - (1 Jan 2009 - 31 Dec 2009)**

### 13.1

**Please give your total gross global Scope 2 GHG emissions in metric tonnes of CO2-e.**

1636988

¿

**Is question 13.2 relevant to your company?**

Yes

### 13.2

**Please break down your total gross global Scope 2 emissions in metric tonnes of CO2-e by country/region.**

Country	Metric tonnes CO2-e
Other: Africa	86550
Other: Europe	1463123
Other: America	2910
Other: Asia/Australasia	82333
Other: Russia	2072

### 13.3

**Please explain why not.**

### 13.4

**Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 2 emissions by business division. (Only data for the current reporting year requested.)**

Business division name	Metric tonnes CO2-e
Exploration & Production	159399
Gas & Power	125459
Refining & Marketing	473879
Petrochemicals	712890
Engineering & Construction	110913
Corporate and financial companies	3165
Others	51282

### 13.5

**Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 2 emissions by facility. (Only data for the current reporting year requested.)**

Facility name	Metric tonnes CO2-e
Eni GHG accounting and reporting system, opsGHG, account data at facility level for the main industrial plants, but at corporate level, GHG emission data are not always available per facility. Eni operates in several activity sectors and in 77 countries, so because of the complexity and size of the operations, each Business Unit reports data with different aggregation level (site, production field, Subsidiary, Country). Eni doesn't disclose the GHG data break down for facilities because of the above mentioned gathering issues and competitiveness concerns.	

¿

**Is question 13.6 relevant to your company?**

Yes

**13.6**

**How much electricity, heat, steam, and cooling in MWh has your organization purchased for its own consumption during the reporting year?**

Please supply data for these energy types.	MWh
Electricity	2820593
Heat	5310
Steam	937669

**13.7**

**Please explain why not.**

**13.8**

**Please estimate the level of uncertainty of the total gross global Scope 2 figure that you have supplied in answer to question 13.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.**

Uncertainty range	Main sources of uncertainty in your data	Please expand on the uncertainty in your data.
Other: energy purchase fiscal uncertainty and average electricity grid emission factors calculation uncertainty (ref. International Energy Agency, 2007)	Data Gaps Assumptions Extrapolation Metering/ Measurement Constraints Published Emissions Factors	The main sources of uncertainty are the applied average emission factors based on country energy mix. The missing or incomplete data regarding the worldwide purchased energy data gathering are other sources of uncertainty.

#### Further Information

Note ref 13.1: In 2009, according to eni GHG Protocol, the scope 2 indirect emissions calculation was carried out from electricity/steam purchase from third parties and specific grid average emission factors (t GHG/MWh) per each Country. The electricity (MWh) uses in the formula is the amount uses for internal consumption, the energy trading is not included. The 2009 scope 2 calculation is an improvement compared to the last years one when we applied the Italian average emission factors, this assumption was justified by the high percentage of Italian purchased energy consumption on the total worldwide amount. The 2009 scope 2 emission data are not comparable with 2008 (and previous ones) estimation because of scope 2 mentioned methodology change and data accounting boundary review. Note ref. 13.6: The purchased energy (MWh) is the amount uses for eni internal consumption, the energy trading is not included.

#### Attachments

14.1

**Do you consider that the grid average factors used to report Scope 2 emissions in question 13 reflect the contractual arrangements you have with electricity suppliers?**

No

14.2

**You may report a total contractual Scope 2 figure in response to this question. Please provide your total global contractual Scope 2 GHG emissions figure in metric tonnes CO2-e.**

0

14.3

**Explain the origin of the alternative figure including information about the emission factors used and the tariffs.**

We used Italy's grid emission factors for the calculation of scope 2 emissions, since Eni's electricity purchase contracts do not include, generally, specific contractual clauses on emission factors. Anyway, in its trading activity, Eni imported 1,044,336 MWh to Italy, whose 99.9% (1.044.326 MWh) was supplied with a guarantee of renewable origin. The electricity which was bought by third parties should be considered with zero-emission factor when it was certified as renewable by a guarantee of origin (or equivalent certification by the Issuing Body). Since obtaining such certification requires a bureaucratic burden and allows to avoid obligations in terms of green certificates, an additional fee is given to the supplier, generally about 1,5 €/MWh. Sometimes, this fee is not shown in contractual arrangements, where the price includes the guarantee of origin; for this reason a sharp value of the fee cannot be given. Anyway since this electricity was resold to Eni's customers its emission factor (0) was not considered in evaluating scope 2 emissions.

14.4

**Has your organization retired any certificates, e.g. Renewable Energy Certificates, associated with zero or low carbon electricity within the reporting year or has this been done on your behalf?**

Yes

14.5

**Please provide details including the number and type of certificates.**

Type of certificate	Number of certificates	Comments
Other: Green certificates (Italy)	204327	For each operator (producer or importer of electricity from not renewable sources), Italian law requires that a mandatory percentage of energy comes from renewable sources, in new plants, to be entered into the national electricity system, with reference to the electricity which was entered in the previous year by the same operator, net of cogeneration and – obviously – of renewable energy. The obligation is to be met with green certificates, each of which is equivalent to 1 MWh. Compliance is verified in the following year, with the supply of the certificates and their cancellation, by 31st March (see also <a href="http://www.gse.it">www.gse.it</a> ). Since Eni is involved in power generation and trading, it is obliged to fulfil this legislation. Most of Eni's power generation is in fact from cogeneration plant and most of its import has a guarantee of origin from renewable sources. The figures for last years are: 2008: 235400 2009: 204327 2010: 228615
Renewable Energy Guarantees of Origin (RE-GO)	1043326	Most of Eni's electricity import has a guarantee of origin (GO). The import in 2009 was 1,043,336, whose 99.9% was covered with GOs.
Renewable Energy	35000	Eni also provided RECs (Renewable Energy Certificates) for some customers. In 2009 it has bought and delivered to them 141,001 RECs, of which 35,000 were

Type of certificate	Number of certificates	Comments
Certificates		annulled during 2009. These certificates are a voluntary tool, as opposed to Green Certificates, which are compulsory. More details can be found on <a href="http://www.gse.it">www.gse.it</a>

#### Further Information

Note ref. 14.2: the reported data is referred only to the renewable energy purchase, where a contractual arrangement involves a certified origin of the supplied energy, which allows to consider an emission factor equal to 0 gCO<sub>2</sub>/kWh.

#### Attachments

### Page: Emissions Scope 3

¿

Is question 15.1 relevant to your company?

Yes

#### 15.1

Please provide data on sources of Scope 3 emissions that are relevant to your organization.

Sources of Scope 3 emissions	Metric tonnes of CO <sub>2</sub> -e	Methodology	If you cannot provide a figure for a relevant source of Scope 3 emissions, please describe the emissions.
Use of sold goods and services	314827150	GHG emissions are estimated by multiplying the amount of oil products (45,590 million toe) and natural gas (89,960 million m <sup>3</sup> ) sold to customers, by the relevant average emission factors. The EF used are: 3.08 tCO <sub>2</sub> e/ t oil products and 0,001945 tCO <sub>2</sub> e/m <sup>3</sup> sold gas.	
Purchased goods & services - direct supplier emissions	339417	Engines emissions are calculated based API Compendium methodologies, on fuel consumption and Equipment specific combustion emission factors; flaring and venting emissions are also calculated based on the API Compendium	
Business travel	30000	Eni refers to US-EPA Climate Leaders/ Optional Emissions from Commuting, Business Travel and Product Transport, may 2008. The activity data (distance, transport type, number of travels) are provided internally by Human Resources Business Travel Management. COVERAGE: 47% of the total employees	
Other: Outsourced/contracted activities		Eni is developing an own methodology and accounting system. This goal will be achieved also with eni's participation to CDP-Supply Chain 2010 program.	According to WBCSD/WRI GHG protocol, the reporting of Scope 3 emissions is optional, therefore eni has decided to extend gradually our reporting boundary to Scope 3 emissions from suppliers activities carried out for eni. In 2009 eni accounts the scope 3 emission for the drilling activities

Sources of Scope 3 emissions	Metric tonnes of CO2-e	Methodology	If you cannot provide a figure for a relevant source of Scope 3 emissions, please describe the emissions.
			<p>by 3rd party, considering this one a core-business activities that impacts in terms of GHG emission. The e&amp;p division includes this emission quantity in the direct emission (scope 1) because they are considered strictly connected to oil&amp;gas production. Probably the next reporting year eni will break up this contribute from the e&amp;p scope 1 emission. Moreover eni joined the Carbon Disclosure Project-Supply Chain 2010 initiative in order to increase the awareness of its organization's carbon footprint, moving beyond the measurement of direct GHG emissions to include climate change risks and opportunities across the supply chain and the relevant indirect emissions. The main objective is to better understand how suppliers are addressing climate change and working to reduce their greenhouse gas emissions, and account the indirect emission of eni for some selected suppliers. CDP supports the program members to encourage the suppliers to measure and disclose climate change information, in order to drive action on climate change amongst both purchasing companies and their suppliers In order to define a consistent accounting and reporting system for scope 3/suppliers emission, the main followed steps are: Selection of significant outsourced activities and materials that impact in Identification of the main contractors list that terms of GHG emissions; impact on Company's Climate Change Strategy and request of GHG emission Definition of specific associated with the Company's outsourced activities; KPIs per each activity sector. The eni's suppliers involved in the CDP-SC 2010 are selected according to the following criteria:</p> <ul style="list-style-type: none"> <li>- Product/service categories with relevant environmental impact in terms of GHG emissions;</li> <li>- Spending share;</li> <li>- Qualification and size;</li> <li>- Investor CDP Questionnaire participation and HSE/Sustainability Policy.</li> </ul> <p>Moreover, eni is verifying the applicability of WBCSD-WRI "Scope 3 Accounting and Reporting Standard", reviewed draft, November 2009, to eni GHG reporting.</p>

## 15.2

Please explain why not.

### Further Information

Scope 3: Use of sold goods and services In accordance with WBCSD/WRI GHG Protocol Initiative, eni usually estimates the GHG indirect emissions generated by the use of sold hydrocarbon products. The GHG estimation is made on the basis of sales multiplied by the relevant average emission factors. Scope 3: Business Travel In 2009 eni developed a methodology to estimate the indirect GHG emission from business travel. In 2009 eni's employees are 78,417 working in 77 Countries, in several activity sectors/Companies. To track the worldwide business travels is difficult. The eni HR

business travel management system accounts data for each travel per passenger necessary for the GHG emission calculation. The applied average emission factors are derived from the US\_EPA GHG Inventory Protocol/Optional Emissions from Commuting, Business Travel and Product Transport, may 2008. 2009 is first reporting year, the calculation was developed on the basis of data provided by Human Resources Business Travel Management, and the coverage is the 47% of the total employees. The employees of some abroad affiliates are not included because they don't use the above mentioned accounting tool. Our expectation is that the larger number of travels regards the Companies headquarter employees in order to reach the production fields and sites, they are consolidated in developed calculation. The leasing cars are excluded from the estimation, because no data are available at eni corporate level. The calculated figures (about 30,000 tCO<sub>2</sub>e/y) confirm that this GHG emission contribution is negligible in relation to other emissions associated with eni business. In order to reduce the indirect GHG emissions from business travel, eni is encouraging the use of videoconferencing system. Eni headquarters relies on 630 fixed videoconferencing systems in meeting rooms and 370 portable systems for smaller employee groups that have been installed since 2005. Videocall integrated with the VoIP phone system is also available for many users in Eni (2,000 webcam on 30,000 IP phones in 2009; 4,000 expected in 2010). In 2009, more than 150,000 videoconferences and 700,000 videocalls took place, thus saving many trips, for an estimated emissions reduction of 24,000 tCO<sub>2</sub>e/year.

---

## Attachments

### Page: Emissions 7

---

#### 16.1

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

Yes

---

#### 16.2

##### Please provide details including the anticipated timescale over which the emissions are avoided, in which sector of the economy they might help to avoid emissions and their potential to avoid emissions.

Eni's gas & power division provides technical support to customers, helping them to set up solutions to increase their energy efficiency. This activity also allows eni to obtain white certificates. A white certificate is a tradable title, certifying the saving of 1 toe, which is given by the Italian Energy Authority (more details on [www.autorita.energia.it](http://www.autorita.energia.it)). There are three different kinds of certificate available: type I: electricity savings (in terms of primary energy); type II: natural gas savings; type III: other fuels savings. The evaluation of the number of certificates that may be attributed, is made following general or specific rules approved by the Energy Authority, comparing the energy performance to the market standard for the involved application, resulting in a prudent estimation of the saving. The standard duration of a project is generally set at a 5-year period during which savings may be certified, even if its effects can last beyond. Most of savings were in industrial sector. The white certificates and the CO<sub>2</sub> saving which were obtained by Eni's Gas&Power Division are listed beneath: Type I (savings of electricity): 64 toe; emission factor: 3.11 tCO<sub>2</sub>/toe; resulting emission saving: 199 tCO<sub>2</sub> Type II (savings of natural gas): 3348 toe; emission factor: 2.35 tCO<sub>2</sub>/toe; resulting emission saving: 7868 tCO<sub>2</sub> Type III (savings of other fuel): 32561 toe; emission factor: 3.07 tCO<sub>2</sub>/toe; resulting emission saving: 99962 tCO<sub>2</sub> The projects were able to provide a saving of 35973 toe, avoiding 108029 tCO<sub>2</sub>. The reference for the emission factors of other fuels is given by the IPCC Report (they were considered as oil), while for the electricity the emission factor was calculated dividing 0.581 (average emission factor of the thermolectric power generation in Italy, published by Terna - the Italian TSO - as you can see on <http://www.terna.it/LinkClick.aspx?fileticket=N69MNBTlj9M%3d&tabid=811>) by the 0.187 toe/MWh, which was set by the Energy Authority as a parameter for the calculation of the saving of primary energy related to an electricity saving (Resolution EEN/3/2008; the Italian text and a short description in English it can be found on <http://www.autorita.energia.it/inglese/enlex/08.htm>). Italgas, Eni's subsidiary leader in natural gas distribution in Italy, is an obliged subject and has to deliver an amount of white certificates to the Energy Authority, proportional to its share of energy distributed in the previous year. The obligation for year 2008 (compliance in 2009) was 245067 certificates (including the subsidiary Siciliana Gas which was incorporated, see also Resolution EEN/1/2008, <http://www.autorita.energia.it/inglese/enlex/08.htm>) and was accomplished in 2009 with 200067 certificates type I e 45000 certificates type II. The obligations for year 2009 (compliance in 2010) are 325979 certificates for Italgas and 26129 certificates for the subsidiary Napoletana gas; both should be accomplished by 31st May 2010, as stated by Italian Law (see also Resolution EEN/2/2009, <http://www.autorita.energia.it/it/docs/09/002-09een.htm>). Furthermore, Eni contributes to increase energy efficiency in transport sector by the fuels of the BLU products line. BluDieselTech is an innovative, low-sulphur (less than 10 parts per million) diesel fuel, designed to improve the performance of all diesel engines. It allows to travel up to an extra 500 km for every 20,000 km. Five times richer in detergent additives, it allows to keep clean the engine, preventing the formation of deposits and preserving its efficiency (more details on [http://www.eni.com/en\\_IT/products-services/fuels/diesel/bludiesel-tech/bludiesel-tech.shtml](http://www.eni.com/en_IT/products-services/fuels/diesel/bludiesel-tech/bludiesel-tech.shtml)). BluSuper is a high quality petrol which improves engine performance and better efficiency over time. It has a higher octane number and a very low sulphur content (<10 mg/kg). This petrol, whose octane number is equal to 98, contains a special additive which keeps the engine clean (more details on [http://www.eni.com/en\\_IT/products-services/fuels/petrol/blusuper/blusuper.shtml](http://www.eni.com/en_IT/products-services/fuels/petrol/blusuper/blusuper.shtml)).

---

¿

**Is question 17.1 relevant to your company?**

No

---

**17.1**

**Please provide your total carbon dioxide emissions in metric tonnes CO<sub>2</sub> from the combustion of biologically sequestered carbon i.e. carbon dioxide emissions from burning biomass/biofuels.**

**17.2**

**Please explain why not.**

In general, Eni does not emit carbon dioxide from the combustion of biologically sequestered carbon, even if in next year 25 MW of power from biomass were planned. Anyway, since the amount of this carbon is the same which was absorbed from the atmosphere, the overall carbon balance is 0 and – according to EU-ETS regulations – the emission factor for biomass and biofuels is considered 0. Eni contributes in avoiding emissions by trading biofuels, which allows to substitute fossil carbon with biological carbon. Eni's refining & marketing division is not involved in biofuel production, but it trades significant amounts of biofuels, which are generally blended with fossil gasoline and diesel, to be sold to the final customers. The amounts of biofuels, and of blended fuels, which were sold in the last 6 years are shown beneath; besides, while a forecast is given for current year. Biodiesel (Millions cubic meters) 2008: 0.35 2007: 0.20 2006: 0.18 2005: 0.11 2004: 0.09 2003: 0.06 Forecast 2010: 0.55 Biogasoline (Millions cubic meters) 2008: 0.48 Forecast 2010: 0.17 2009: 0.31 2007: 0.03 2006: 0.04 2005: 0.09 2004: 12.3 2003: 12.5 2002: 12.1 2001: 0.36 Blended fuels (Millions tons) Forecast 2010: 13.4 Moreover, Eni's research and development activities are devoted to the production of high-performance biofuels, such as biodiesel obtained from bio-oil hydrogenation and isomerization, with a higher cetane number than traditional diesel oil; another objective of our research activities is to develop technologies for the production of second-generation biofuels, able to convert all the biomass into energy products. Lastly, Eni is developing a carbon dioxide biofixation and biomass production process based on the use of microorganisms. Tests are well underway at the Gela refinery on a process that uses microalgae for the biological fixation of the carbon dioxide generated by the refinery's power plant, the purification of civil or industrial waste water, and the production of biomass to be converted into biodiesel through a proprietary process. Eni also participates in the development of analysis models for second generation bio-ethanol production systems as part of the EU's NILE project (New Improved Lignocellulosic Ethanol). Other research efforts are directed at finding solutions to specific problems of the environments where it operates: one example of this is the feasibility study for the production of renewable energy using an infesting plant found in the Niger Delta. Research and development activities on the use of biomasses are conducted mainly at the Novara Research Centre for Non-conventional Energies, and are supported by an extensive network of Universities, international research centres, and automotive companies (e.g. CHRISGAS, CNR-ITAE Messina, LEAP Consortium, MIT, Polytechnic of Milan, University of Bari, University of Bologna, University of Milan).

---

**Further Information**

**Attachments**

**Page: Emissions 8**

---

**18.1a**

**Please describe a financial intensity measurement for the reporting year for your gross combined Scope 1 and Scope 2 emissions.**

**If you do not consider a financial intensity measurement to be relevant to your company, select "Not relevant" in column 5 and explain why in column 6.**

Figure for Scope 1 and Scope 2 emissions	GHG units	Multiple of currency unit	Currency unit	Financial intensity metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
708.00	Metric tonnes CO2-e	Million	EUR(€)	Other: Net sales from operations	As financial emissions intensity, we decided to use the GHG Scope 1 and Scope 2 emissions per € of company turnover (net sales from operations). Eni's net sales from operations for 2009 were € 83,227 million (ref. eni factbook 2009, page 8) KPI: 708 ton of CO2e directly or indirectly emitted/M€. Next years an improvement of this performance indicator is expected considering the strong eni engagement in reducing GHG emission in particular referring to flaring down program. While the company turnover data are strictly connected with oil price.

#### 18.1b

Please describe an activity-related intensity measurement for the reporting year for your gross combined Scope 1 and Scope 2 emissions.

Oil and gas sector companies are also asked to report activity-related intensity metrics in answer to table O&G1.3.

If you do not consider an activity-related intensity measurement to be relevant to your company, select "Not relevant" in column 3 and explain why in column 4.

Figure for Scope 1 and Scope 2 emissions	GHG units	Activity-related metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
242.00	Metric tonnes CO2-e	Other: ktoe	Scope 1 - Exploration & Production KPI, expressed in terms of tCO2 equivalent per ktoe of oil & gas net production;
1270.00	Metric tonnes CO2-e	Other: Kbb/SD	Scope 1 - Refining's KPI, expressed in terms of tCO2 equivalent per equivalent distillation capacity (1000 barrels per standard day)
410.00	Other: Grams CO2-e	Other: KWheq	Scope 1 - Power Generation's KPI, expressed in terms of tCO2 equivalent per KWh eq produced;
3.54	Metric tonnes CO2-e	Other: toe electricity and heat production	Scope 1 - Petrochemical's KPI - energy generation emission intensity, expressed in terms of tCO2 equivalent per energy production
1.56	Metric tonnes CO2-e	Other: tonnes of ethylene production	Scope 1 - Petrochemical's KPI -ethylene production emission intensity, expressed in terms of tCO2 equivalent per production
15.83	Metric tonnes CO2-e	Other: MSm3 transported gas	Scope 1 - Gas Transmission/Distribution KPI, expressed in terms of tCO2 equivalent per transported gas volume
87.68	Metric tonnes CO2-e	Other: MSm3 distributed gas	Scope 1 - Gas Transmission/Distribution KPI, expressed in terms of tCO2 equivalent per distributed gas volume
1.23	Metric tonnes CO2-e	Other: mile	Scope 1 - LNG Shipping KPI, expressed in terms of tCO2 equivalent per distance

#### 19.1

**Do the absolute emissions (Scope 1 and Scope 2 combined) for the reporting year vary significantly compared to the previous year?**

Yes

## 19.2

**Please explain why they have varied and why the variation is significant.**

In 2009 the direct (scope 1) GHG emissions decreased for the second consecutive year (5.1 Mton CO<sub>2</sub>e= -8% in 2009 compared with 2008) confirming the soundness of eni's industrial choices and ensuring the achievement of reduction objectives. In 2009 the scope 2 GHG emission increased because of purchased energy growth for internal consumption. The main reason is the improvement and extension of the reporting boundary. A case of increase is in the power generation sectors that in 2009 carried out many planned major inspections (duration of about 40 days) on some sites. The 2009 scope 2 emission data are not directly comparable with 2008 estimation because of scope 2 applied methodology change, in terms of used average emission factors and accounting data breakdown from BU. In particular follows the Scope 1 GHG change explanation for sectors: - exploration & production, which accounts for roughly 50% of the emissions in eni, has registered a 13% emissions reduction compared with 2008, thanks to a decrease in flaring emissions (-20%) and venting emissions (-9%) while the consumption of energy has remained in line with the previous year; - refining & marketing sector, recorded - 6% compared with last year, is due mainly to a contraction in production and to the installation of new technologies aimed at limiting emissions into the atmosphere - power generation, has shown a modest increase in carbon dioxide emissions (+4% compared to 2008), in line with the higher consumption of fuels mitigated by a higher consumption of natural gas. Overall, the production level of electric and steam power in 2009 stood below the level reached in 2006-2007; however, compared with 2008, a year characterized by some accidents at the plants, energy production was up by 5.1%; - gas transmission, showed a 20% decline in the emissions of carbon dioxide due to decreased energy consumption.

## 20.1A

**Please complete the following table indicating the percentage of reported emissions that have been verified/assured and attach the relevant statement.**

Scope 1 (Q12.1)	Scope 2 (Q13.1)	Scope 3 (Q15.1)
More than 80% but less than or equal to 100%	Not verified	More than 80% but less than or equal to 100%

## 20.1B

**I have attached an external verification statement that covers the following scopes:**

Scope 1  
Scope 3

## Further Information

Note ref. 18.1b: According to eni's "GHG Accounting and Reporting Protocol" each eni division and company identifies its specific Key Performance Indicators (KPI), in relation to those metrics that are deemed most relevant to their business for measuring performance against eni's climate change strategy. The KPI for Petrochemical, Gas Transmission/Distribution and LNG Shipping are new emission intensity factors. Note ref 20.1A: Scope 1 - 100% are verified by PriceWaterHouseCoopers in the eni Sustainability Report 2009 EU-ETS (43%) Auditors (Det Norske veritas) - See pag. 86-87 of the Sustainability Report, and attached file of an example: "attestato di verifica" issued by DNV to a ETS site. Scope 3 - 100% of emissions from use of sold goods and services are verified by PriceWaterHouseCoopers in the eni Annual Report 2009 - See pag. 289-290 of the Annual Report.

## Attachments

[https://www.cdproject.net/Sites/2010/34/5634/Investor\\_CDP\\_2010/Shared Documents/Attachments/InvestorCDP2010/Emissions-Other2/Extract Sustainability Report 2009.doc](https://www.cdproject.net/Sites/2010/34/5634/Investor_CDP_2010/Shared_Documents/Attachments/InvestorCDP2010/Emissions-Other2/Extract_Sustainability_Report_2009.doc)  
[https://www.cdproject.net/Sites/2010/34/5634/Investor\\_CDP\\_2010/Shared Documents/Attachments/InvestorCDP2010/Emissions-Other2/example ET verification certificate.doc](https://www.cdproject.net/Sites/2010/34/5634/Investor_CDP_2010/Shared_Documents/Attachments/InvestorCDP2010/Emissions-Other2/example_ET_verification_certificate.doc)

**Page: Emissions 9 Trading**

**21.1**

**Do you participate in any emission trading schemes?**

Yes

**21.2**

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

Scheme name	Period for which data is supplied.	Allowances allocated	Allowances purchased	Verified emissions - number	Verified emissions - units	Details of ownership
European Union ETS	Sat 01 Jan 2005 - Mon 30 Apr 2007	77247755	0	70072025	Metric tonnes CO2	Facilities we own and operate
European Union ETS	Tue 01 Jan 2008 - Mon 30 Apr 2012	126385513	988276	50079344	Metric tonnes CO2	Facilities we own and operate

**21.3**

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

In order to comply with and manage the ETS, it was necessary to develop a group-wide organization at single site level up to the business units and finally consolidated at the corporate level. The ETS is coordinated by the Corporate Health, Safety, Environment and Quality Dept. (HSEQ) that draws up a centralized transaction plan for trading allowances among eni's installations in order to achieve optimal use of the credits and minimize external transactions. On a quarterly basis, eni corporate HSEQ function coordinates the Greenhouse Gas Management Team composed of the business lines HSE managers, the Financial Department and, starting from 2009, the Planning & Control Department and the Accounting and Financial Statements Department. The Team is responsible for the yearly approval of the Transaction Plan. The Financial Department is in charge of implementing the EUA trading in line with the approved Transaction Plan. In addition to participating in the EU ETS, eni is developing, in its industrial activities worldwide, a portfolio of reduction projects based on the Kyoto flexible mechanisms (CDM & JI). As such, eni is leveraging on its widespread presence in developing countries to export environmentally-friendly technology and obtain corresponding emissions reduction certificates which will be more and more useful for its European installations. Flaring down projects in developing countries form part of this strategy. Eni considers carbon as a fundamental factor for assessing investments in order to include the cost of eventual reduction measures at the very beginning of investment decision process. In the medium to long term, in the light of a much more severe EU ETS II Phase (2008-2012) and the New Energy Policy for Europe (EPE, 20% minimum reduction in greenhouse gases by 2020 compared to 1990), eni estimates the carbon price for the period 2008-2020 within its Reference Scenario, which provides the business lines with an outlook for all the energy-related strategic variables. Specifically, the forecasts of the equilibrium carbon prices are determined on a regular basis through a market model based on European Emissions Trading and Kyoto framework fundamentals (EUA and CER/ERU supply/demand, economic growth, electricity generation capacity, weather, political sentiment, etc.). From an operative point of view, in the case of assets subject to EU-ETS, eni performs an investment analysis which also considers the carbon price. As already stated above, in a medium term perspective (EPE, 2020), eni is also evaluating the potential risk of carbon leakage for some of its activities (e.g. petrochemicals, refining, oil & gas upstream) - a fundamental issue for European competitiveness. In January 2010, the European Commission has published the list of the sectors at risk of carbon leakage that includes the above mentioned sectors; for this reason they shall receive allowances for free along the III EU ETS phase. At same time, eni is evaluating the impact on his own business of the EU ETS III phase (2013-2020), where allowances will be mostly allocated through auction process rather than for free. In particular, no allowances will be allocated free of charge for electricity production, whereas sectors (i.e. refining petrochemical) exposed to a carbon leakage risk will receive allowances for free based on ambitious benchmarks. In August 2009 eni has participated to the Public Consultation to define a proposal of Auctioning Regulation (please follow this link to analyse eni position on the Auctioning system): <http://ec.europa.eu/environment/climat/emission/pdf/Other%20energy%20companies/Eni.pdf> Furthermore, eni is assessing the Auctioning Regulation draft provided by the Commission on 6th April 2010 that should be adopted by the end of June. With regard to the definition of benchmarks for free allocation by the Commission, eni is strictly collaborating

with national and international Associations recognised as primary Stakeholders (CONCAWE, EUROPIA, CEFIC, IETA) in order to identify the most efficient benchmarks. Finally, with regard to other cap and trade schemes, eni is monitoring the Australian Carbon Pollutant Reduction Scheme (CPRS) which would have been introduced in 2010, but it was delayed up to 2012. The first auction of the Scheme will be held in 2011, prior to the commencement of the CPRS on 1 July 2011. However, in 2011-12, as a transitional measure, an unlimited number of permits will be available to liable entities at a fixed price of 10 \$/tonCO2. Full trading, including being able to surrender eligible international emissions units, will commence in 2012-13 with a transitional price cap in place. In Australia eni's operated Woollybutt and Blacktip Projects, and non-operated Darwin LNG plant, are all expected to exceed the annual direct emissions threshold of 25,000 tonnes CO2e and hence will be covered by the CPRS.

#### 21.4

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

Yes

#### 21.5

**Please complete the following table.**

Credit origination or credit purchase?	Project identification	URL link to project documentation	Verified to which standard?	Number of credits (metric tonnes of CO2-e)	Credits retired?	Purpose e.g. compliance
Credit Origination	Recovery of associated gas that would otherwise be flared at Kwale oil-gas processing plant, Nigeria	<a href="http://cdm.unfccc.int/Projects/DB/DNV-CUK1155130395.3/view">http://cdm.unfccc.int/Projects/DB/DNV-CUK1155130395.3/view</a>	CDM	1496934	No	Compliance
Credit Purchase	Project 0838 : GHG emission reduction by thermal oxidation of HFC 23 at Navin Fluorine International Limited (NFIL), Surat, Gujarat, India	<a href="http://cdm.unfccc.int/Projects/DB/DNV-CUK1167824240.14/view">http://cdm.unfccc.int/Projects/DB/DNV-CUK1167824240.14/view</a>	CDM	79750	Yes	Compliance
Credit Purchase	Project 0099 : N2O Emission Reduction in Onsan, Republic of Korea	<a href="http://cdm.unfccc.int/Projects/DB/DNV-CUK1127672024.44/view">http://cdm.unfccc.int/Projects/DB/DNV-CUK1127672024.44/view</a>	CDM	79750	Yes	Compliance
Credit Purchase	Project 0116 : N2O Emission Reduction in Paulinia, SP, Brazil	<a href="http://cdm.unfccc.int/Projects/DB/DNV-CUK1130160031.78/view">http://cdm.unfccc.int/Projects/DB/DNV-CUK1130160031.78/view</a>	CDM	79750	Yes	Compliance
Credit Purchase	Project 0557 : Catalytic N2O Abatement Project in the Tail Gas of	<a href="http://cdm.unfccc.int/Projects/DB/TUEV-SUED1155134039.49/view">http://cdm.unfccc.int/Projects/DB/TUEV-SUED1155134039.49/view</a>	CDM	79750	Yes	Compliance

Credit origination or credit purchase?	Project identification	URL link to project documentation	Verified to which standard?	Number of credits (metric tonnes of CO <sub>2</sub> -e)	Credits retired?	Purpose e.g. compliance
	the Nitric Acid Plant of the Pakarab Fertilizer Ltd (PVT) in Multan, Pakistan					

#### Further Information

Note Ref. 21.2: 1) For the period 2008-2012, the "allowances allocated" data does not include the allowances for New Entrants (the Italian New Entrants Reserve from NAP2 is completely consumed). 2) For the period 2008-2012, the verified emission number includes only the 2008 and 2009 verified emission. Note Ref. 21.5: Number of credits of the first project: eni's estimates The number of credit purchased refers to the amount of CER bought on the secondary market

#### Attachments

**Module: Climate Change Communications**

**Page: Communications 1**

#### 22.1

**Have you published information about your company's response to climate change/GHG emissions in other places than in your CDP response?**

Yes

#### 22.2

**In your Annual Reports or other mainstream filing? (If so, please attach your latest publication(s).)**

Yes

#### 22.3

**Through voluntary communications such as CSR reports? (If so, please attach your latest publication(s).)**

Yes

#### Further Information

The 2008 Annual Report (attached) contains an entire section dedicated to Sustainability: "Commitment to sustainable development", pages 144-161. Within this section, there is a focus on environmental issues and more specifically on climate change. See also charter on emission trading on page 258 of the Annual Report. In our Fact Book 2009 we published all the data concerning GHG emissions and environmental performances related to climate change too (attached). The Sustainability Report 2009 (attached) provides a thorough analysis of climate change implications for eni. Eni's website contains a detailed section dedicated to sustainability; in the Sustainability section of the eni web-site there is a dedicated section on climate change and carbon strategy. Moreover, the Investor Relations section (link attached) on the website contains a "Socially Responsible" window from which the Sustainability Report and the answers to the CDP questionnaire are directly downloadable. Eni, in defining its long-term position with regard to climate change, has put forward a proposal for a global agreement that was first outlined by chief executive Paolo Scaroni on 22nd September



Please enter:	2004	2005	2006	2007	2008	2009	2010
Extraction & production	32482978	32536726	30897119	35599677	33645897	29363258	29011379
Refining & processing	8112447	8115300	7911194	8537840	7739438	7290198	8350881
Transportation (inc. fugitive losses)	3559000	4032000	4278000	3975000	3925000	3280529	4318057
Emissions in use (combustion)	306024813	308459250	311863063	307138563	329980888	314827150	

#### OG1.1.1

Please supply any information needed to understand the methodology and assumptions behind these estimates that has not already been given in answer to questions 11 and 15 in the general information request.

Since 2004, eni has adopted an own GHG Accounting and Reporting Protocol for the monitoring of worldwide GHG emissions, applicable to each eni sectors. The above data are grouped in the following category: "Extraction & production" includes Eni Exploration & Production Division emissions; "Refining & processing" includes Eni Refining & Marketing Division emissions; "Transportation" includes the eni Companies: Snamreagas, Italgas, Stogit and Eni Gas Transport International emissions (activities: gas transmission and distribution, gas storage); "Emissions in use" includes Scope 3 GHG emissions generated by customers from sold products. Methodology: GHG emissions are estimated by multiplying the amount of oil products (45,590 million toe) and natural gas (89,960 million m3) sold to customers, by the relevant average emission factors. The EF used are: 3.08 tCO<sub>2</sub>e/ t oil products and 0,001945 tCO<sub>2</sub>e/m<sup>3</sup> sold gas. In 2009 CO<sub>2</sub> equivalent calculation formula eni includes only CO<sub>2</sub> and CH<sub>4</sub> emission, but the accounting and reporting procedure for the other GHGs is improved and eni will evaluate if extend the list of GHG included in the CO<sub>2</sub> eq. estimation.

#### OG1.2

##### GHG emissions from flaring of gas

Year Ending	Volume of gas flared (m3)
2004	8597088021
2005	8482240950
2006	7051618614
2007	9164192155
2008	7713312091
2009	6143331344
2010	5304097790

#### OG1.2.1

Please supply any information needed to understand the methodology and assumptions behind these estimates that has not already been given in answer to question 11 in the general information request.

Since 2007 the decreasing trend is in line with e&p flaring down program, the objective of the gas flaring projects, that are currently underway, is a 70% reduction by 2012 in gas flaring emissions, compared with the 2007. These projects will be implemented mainly on the African continent where flaring practice is more common due to higher technical, logistic, operational and economic (financial and domestic market) difficulties in implementing projects that involve the use of gas resources. In 2009 eni total greenhouse gas emissions decrease for the second consecutive year (-8% in 2009 compared with 2008), in particular, the e&p sector – which accounts for roughly 50% of the emissions in eni – has registered a 13% emissions reduction compared with 2008, thanks to a decrease in flaring emissions (-20%).

#### OG1.3A

##### Production by hydrocarbon type (BOE)

Hydrocarbon type	2004	2005	2006	2007	2008	2009	2010
Gas	215350000	228490000	252215000	261340000	281415000	278130000	293825000
Conventional oil	377410000	405515000	393835000	372300000	374490000	367555000	369015000

### OG1.3B

Assumed emissions intensity associated with each hydrocarbon based on current production and operations (metric tonnes CO<sub>2</sub>-e/BOE)

Year ending	Hydrocarbon type	Extraction & production (metric tonnes of CO <sub>2</sub> -e/BOE)	Refining & processing (metric tonnes of CO <sub>2</sub> -e/BOE)	Transportation (inc. fugitive losses) (metric tonnes of CO <sub>2</sub> -e/BOE)	Emissions in use (combustion) (metric tonnes of CO <sub>2</sub> -e)
2009	Gas	0.01		0.00	
2009	Conventional oil	0.04			

### OG1.3C

Please provide the 2009 proven reserves (in BOE) by hydrocarbon type, specifying also the date the reserves were assessed

Hydrocarbon type	Proven reserves (BOE)	Please specify a date
Gas	3108000000	Thu 31 Dec 2009
Conventional oil	3463000000	Thu 31 Dec 2009

### OG1.3.1

Please supply any information needed to understand the methodology and assumptions behind these estimates that has not already been given in answer to questions 11, 15 and 18 in the general information request.

Notes: Ref. OG1.3A,B,C - Conventional oil includes heavy oil and condensates. CO<sub>2</sub> eq. indicator for conventional oil production is higher than for gas production mainly because of the effect of flaring emissions. Ref. OG1.3A - Production data are reported as equity share; 2010 production data are referred to 1st quarter 2010; Ref. OG1.3B - For technical approximation problems (max 2 decimals), follows the real KPI value: E&P Gas: 0.008 metric tonnes of CO<sub>2</sub>-e/BOE; E&P Conventional Oil: 0.038 metric tonnes of CO<sub>2</sub>-e/BOE; For the purpose of calculation of 2009 100% operated CO<sub>2</sub> eq indicator for gas and conventional oil, the concept of "main product" has been adopted. This means that for each installation "main production" has been identified and all emissions generated by that installation have been considered as emissions related to "main product". This is because it is not possible to identify the portion of emissions related to different products (oil is always associated to gas production); R&P: not available because the refining sector doesn't calculate the KPI per different product type; Transportation Gas: 0.00377 metric tonnes of CO<sub>2</sub>-e/BOE; The KPI for Transportation includes eni's transmission and distribution Companies (Snamreagas, Eni Gas Transport International and Italgas); Emissions in use: Eni estimates the GHG emissions in use (combustion) generated by customers from sold products, as reported in the O&G 1.1 answer; Ref. OG1.3C - Reserves data are reported as equity share.

### Further Information

#### Attachments

[Page: Oil & Gas - Adaptation to physical effects](#)

### OG2.1A

Value of net asset exposure to extreme weather events (please provide details for key countries)

Reporting country	Currency	2005	2006	2007	2008
United States of America		32	69	87	119
Australia		26	18	17	17
China		8	8	8	8

### OG2.1B

Please provide the 2009 proven reserves (in BOE) for key countries, specifying also the date the reserves were assessed

Reporting Country	Proven reserves (BOE)	Please specify a date

#### Further Information

Ref. table O&G2.1A: instead of net asset exposure, equity oil & gas production in thousand barrel of oil equivalent per day (kboe/d) has been provided, for those regions located exposed to extreme weather events, such as China, Australia and the Gulf of Mexico. It shall be highlighted that eni's production in these areas represents 8% of the total production of the company in 2009. The risk of weather events and changing weather patterns is factored in by Development Project Managers throughout the project lifecycle. For example, in case of offshore floating production units, the risks of extreme weather events are reduced via quickly releasable Floating Production, Storage and Offloading (FPSO) vessels. Furthermore, eni has stipulated contracts with external consultants for the continuous monitoring of weather conditions in order to be ready for immediate responses to risky situations. As a valid example, eni subsidiary in Australia created a specific HSE Standard for adverse weather events, which purpose is to define the requirements for managing risks associated with adverse weather conditions and/or cyclonic activity in order to: • safeguard the health and welfare of all eni employees and contractors; • protect eni facilities and assets; • minimise disruption to work activities.

#### Attachments

Page: Oil & Gas - Investment strategy

#### OG3.1

Does your company have a strategy for the development of non-fossil fuels products?

Yes

#### OG3.2A

Financial contribution of renewable and clean energy technologies - Sales generated

Technology area	Currency	2005	2006	2007	2008
Solar - photovoltaic	EUR(€)	11215000	11964000	6729000	10794000

#### OG3.2B

Financial contribution of renewable and clean energy technologies - Investment (capital expenditure + research & development)

Technology area	Currency	2005	2006	2007	2008
Solar - photovoltaic	EUR(€)	2645000	8500000	694000	1052000
Solar - photovoltaic	EUR(€)	2280000		3505000	10228000
CCS	EUR(€)	4555000	1742000	3170000	1887000
Biofuel	EUR(€)	1383000		4154000	11343000

#### OG3.2C

Financial contribution of renewable and clean energy technologies - Earnings Before Interest, Taxation Depreciation, Amortization (EBITDA)

Technology area	Currency	2005	2006	2007	2008

#### OG3.2D

## Financial contribution of renewable and clean energy technologies - Net Assets

Technology area	Currency	2005	2006	2007	2008

### OG3.2E

## Financial contribution of renewable and clean energy technologies - Please provide a short description of the technologies

Please select the technology	Please provide short description of technology
Solar - photovoltaic	Eni owns a plant which makes and sells photovoltaic equipment. The plant, located in Nettuno, is able to make 5 MWp/y.
Solar - photovoltaic	In the field of solar energy, Eni is investing in research and development to create technologies that are able to produce significant discontinuity. Research is focusing in particular on solar cells based on organic and nanostructured materials – which are among the most promising in terms of reducing production costs – and on new architectures for the photovoltaic system, which allow a greater amount of the solar energy gathered to be converted into energy and could be combined with large glazed surfaces. In order to achieve excellent results, as well as to develop strong inhouse skills, Eni has adopted an “open innovation” approach based on building a global network of links with leading research centers. Thanks to its collaboration with the Massachusetts Institute of Technology (MIT), the Solar Frontiers program was launched in February 2008 for research into new generation solar power. Also at MIT, the Eni Solar Frontiers Center was opened in 2009 to promote and speed up multidisciplinary research on advanced solar power technologies, including those based on nanotechnologies and new materials. Once work begins in 2010, the new center will provide a further boost to research in the field of solar power and will benefit from the active involvement of Eni researchers, who will have dedicated areas for them within the center. Further examples of partnerships with important research centers include the framework agreements signed with the Politecnico di Milano and Torino and the Italian National Research Council (CNR). In 2010, this approach will be extended to developing technologies for environmental reclamation and waste treatment, both of which are of interest to the whole energy sector.
Biofuel	In the biofuels area, Eni is committed to developing technologies that allow the targets set by national and European legislation to be achieved: as of 2020, 10% of the fuel used by motor vehicles in each Member State (in terms of energy) must come from biofuel, while electricity and hydrogen must come from renewable resources. For biofuels to contribute significantly to consumption in the transport sector and to reduce their impact, technologies need to be developed that reduce production costs, the use of agricultural land and water resources, and that eliminate competition between food and energy in the use of raw materials. Eni is therefore committed to research into second generation biofuels, produced using Biomass to Liquids technology, which allows the complete conversion of biomass into biofuels – albeit at currently unsustainable costs – and third generation biofuels, obtained by using high productivity micro-organisms such as yeast, bacteria, and micro-algae.

### Further Information

Ref. OG3.1: Renewable sources currently play a very small part in the world energy mix, accounting for 0.7% of world primary energy consumption. Profound transformations will be needed in the long-term to diversify energy sources. For this purpose, Eni is strongly committed to conducting research on renewable sources, primarily solar energy and biofuels, in order to overcome the current limitations of these sources, i.e. the low energy density and high costs of producing energy. Ref. OG3.2A: the revenues from biofuels are not displayed since most biofuels sold by Eni are blended. Ref. OG3.2B: the 2nd row for solar is referred to R&D, while the 1st is about machinery to make photovoltaic equipment. The data for 2006 are only partially available since in that year the company operating in R&D on production of solar cells was involved in a merge process.

### Attachments

**Module: Electric utilities**

**Page: 2010-Investor-Electrical 1 Reporting Years**

## Reporting Periods

Please enter the dates for the periods for which you will be providing data. Historic data for the year ending in 2002 to the year ending in 2009 and forecasted data up to and including the year ending in 2014 is requested.

Year ending	Date range
2002	Tue 01 Jan 2002 - Tue 31 Dec 2002
2003	Wed 01 Jan 2003 - Wed 31 Dec 2003
2004	Thu 01 Jan 2004 - Fri 31 Dec 2004
2005	Sat 01 Jan 2005 - Sat 31 Dec 2005
2006	Sun 01 Jan 2006 - Sun 31 Dec 2006
2007	Mon 01 Jan 2007 - Mon 31 Dec 2007
2008	Tue 01 Jan 2008 - Wed 31 Dec 2008
2009	Thu 01 Jan 2009 - Thu 31 Dec 2009
2010	Fri 01 Jan 2010 - Fri 31 Dec 2010
2011	Sat 01 Jan 2011 - Sat 31 Dec 2011
2012	Sun 01 Jan 2012 - Mon 31 Dec 2012
2013	Tue 01 Jan 2013 - Tue 31 Dec 2013
2014	Wed 01 Jan 2014 - Wed 31 Dec 2014

## Further Information

The data reported in this section "Electrical Utilities" are referred to EniPower SpA (100% Eni) and to its subsidiaries which operate only in Italy. Because of this, the pages regarding other countries were left blank. In 2009 Enipower sold 33.96 TWh of electricity mainly on the Italian market. By 2013 Eni targets sales volumes of 41.66 TWh. Eni's power generation sites are located in Italy. At December 31, 2009, installed capacity was 5.3 GW (4.9 GW in 2008). By 2013 Eni intends to complete its plan for expanding its power generation capacity, targeting an installed capacity of 5.4 GW. This expansion will allow Eni to consolidate its market share and its position as third power producer in Italy. At full capacity in 2013, production is expected to amount to approximately 26 TWh (24.09 TWh in 2009) corresponding to approximately 8% of power expected to be generated in Italy at that date. When fully operational, natural gas supplied will amount to 5.3 bcm/y from Eni's supply portfolio.

## Attachments

[Page: 2010-Investor-Electrical 2 GlobalTotalByYear](#)

Please give total figures for all the countries for which you will be providing figures.

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2-e)	Emission intensity (metric tonnes CO2-e/MWh)
2002	1278	7343	4287136	0.5840
2003	1927	7977	4517759	0.5660
2004	3336	16037	7223938	0.4500
2005	4529	25498	10008534	0.3930
2006	4922	27931	10788707	0.3860
2007	4922	29035	11330115	0.3900
2008	5707	26589	10673915	0.4010
2009	5707	27009	11054607	0.4090
2010	5667	30100		
2011	5667	29900		
2012	5667	29000		
2013	5690	28600		
2014	5948	30215		

## Further Information

The forecasted emissions for current year and following years are not displayed since they are commercially relevant and could affect competitiveness. For the period 2010-2013 EniPower plans to maintain the emission intensity less or equal to 0.415 tCO<sub>2</sub>/MWh-eq. Specific emissions are referred to equivalent production, which is given by electricity plus the exergetic content of steam.