# AREVA & the Global Compact COMMUNICATION ON PROGRESS 2008





2008 was a year of growth for our group. But for AREVA economic performance has no true meaning unless it serves a specific action in favor of sustainable development.

In the same spirit, interaction of social, environmental, ethical and societal issues are embedded in our strategic reflections. This initiative is based on the Global compact principles. All 75 000 AREVA employees, present in over 100 countries implement it in the framework of our Values Charter, today distributed in fifteen languages.

Moreover, the Global compact is an exchange platform that enables us, by the geographic and cultural diversity of it's members and by it's network, to get more actively involved in issues that we cherish such as human rights and climate change.

As this year's Communication On Progress and actions described in the document attest, AREVA is more than ever committed to responsible growth and sustainable strategy. The reference to Global Compact principles inspire it and that is why I am pleased to renew AREVA's commitment and support.

Anne Lauvergeon AREVA, Chief Executive Officer

# Implementing the Global Compact principles

AREVA subscribed to the UN Global Compact in March 2003. The Global Compact is a voluntary gathering of businesses, UN organizations, the labor world and civil society that support 10 universal principles concerning human rights, labor standards, the environment and the fight against corruption.

Beyond its participation in initiatives developed by the Global Compact itself, i.e. the Global Compact Human Rights Working Group, and Caring for Climate the AREVA group is an active member of other organizations and initiatives to promote and share experience in fields concerned by the Global Compact, includina Businesses for Human Rights (currently being created), the Business Leaders' Initiative on Human Rights (BLIHR), Business for Social Responsibility (BSR) and the World **Business Council for Sustainable Development** (WBCSD). Our Values Charter explicitly incorporates the principles of the Global in 2003. Adopted the Charter Compact. associates our values, action principles and rules of conduct.



It applies to all operations controlled by the group, whether nuclear or non-nuclear, in every country in which they are conducted. Local management is responsible for implementing the Values Charter at every level.

See the appendix for a scorecard of 2008 sustainable development actions

The Values Charter and our sustainable development policy, spelled out in our 10 commitments, are the underlying foundations of our operations. All of the group's entities assess their performance in terms of these 10 commitments. Our improvement process is based on an analysis of our performance in relation to our objectives, on benchmarking studies, and on the opinions of our external stakeholders, which we seek out at regular intervals.





The AREVA group's "Report on Responsible Growth in 2008" explains our objectives and our progress. In the following pages, some of the key components are reviewed, with emphasis on the leading actions of 2008 most directly related to the 10 principles of the Global Compact.

Read the Report on Responsible Growth at <u>www.areva.com</u>

# **Human rights**

- 1. Businesses should support and respect the protection of internationally proclaimed human rights; and
- 2. make sure that they are not complicit in human rights abuses.

# Actions

### Values Charter

The group's Values Charter, developed in 2003 based on the principles of the Global Compact, explicitly mentions Human Rights and the legislation and principles that govern or promote their application.

The Charter is known to all of the group's employees, having been translated and distributed in 13 languages, and stakeholders have been made aware of it. The values, action principles and rules of conduct are described in the Charter, which is to be applied and implemented by every manager in every one of the group's units and subsidiaries. They are also included in the scope of the audit.



Mary Robinson President of Realizing Rights

## Promoting Human Rights externally

AREVA actively participated in the Corporate Social Responsibility and Human Rights seminar in Rabat in February 2008, which promotes the Extractive Industries Transparency Initiative (EITI) and Businesses and Human Rights.

Working with the Business Leaders Initiative on Human Rights (BLIHR), AREVA co-organized Businesses and Human Rights, a multilateral seminar held at the Palais de Chaillot in Paris on the occasion of the 60<sup>th</sup> anniversary of the Universal Declaration of Human Rights.

## **Raising Business Ethics Awareness**

A business ethics awareness program was conducted for 400 of the group's managers. To reach a larger number of employees, an e-learning program was rolled out in the United States.



# Labour standards

- Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- 4. the elimination of all forms of forced and compulsory labour;
- 5. the effective abolition of child labour; and
- 6. the elimination of discrimination in respect of employment and occupation.

# Actions



## ODEO

In 2006, AREVA signed a European agreement on equal opportunity with the European Metalworkers Federation. This agreement served as the foundation for an innovative social dialogue mechanism, which crossed a new threshold in 2008 with the creation of Open Dialogue for Equal Opportunities (ODEO). ODEO is a joint initiative of the European Work Council, the European Metalworkers Federation and AREVA, and has the support of the European Commission.

## Parenthood Charter

The French Parenthood Charter signed in April is an integral component of this equal rights initiative. The Charter is a commitment to fostering "a work environment where employees who are parents can better reconcile their personal and professional lives". AREVA is also a member of the French Corporate Parenthood Observatory (Observatoire de la Parentalité) launched in November 2008 to promote best practices and encourage the translation of the Parenthood Charter into concrete action within the company.

## Senior personnel program

Longer working lives and the spate of experienced personnel scheduled to leave AREVA in the coming years are twin challenges for the company: how to meet hopes for a longer career in some cases, and how to ensure the transmission of expertise from senior personnel who are retiring to the younger generation.

A new program initiated in May 2008 establishes two new interviews for senior personnel, one 10 years before retirement and the other 2 years before retirement, to stimulate career management, better retirement planning, and the transmission of skills..



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# Actions (suite)

## Labor Relations

In 2008, numerous agreements were signed at AREVA and in its subsidiaries covering a wide range of subjects: workforce management, compensation, mobility, working hours, employee savings plans, and issues related to equal opportunity in all its facets.

### Health and occupationnal Safety

Protecting employees and subcontractor personnel who work at group sites and on group projects is a top priority. Because health and occupational safety is integral to AREVA's businesses, it is factored into the design of facilities and ensured throughout their operating life. Health and safety are also a criterion in subcontractor selection.





Gravity rate for work-related accidents with lost time for group employees (Nmbr of days lost / thousand hours worked)



Average radiation exposure of employees and subcontractors in mSv/year







# Labour standards

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# Actions (cont.)

The following actions were taken in 2008 concerning health and occupational safety:

- training for occupational safety engineers at AREVA University, supplementing the training offered to the group's managers since 2006;
- distribution of a company directive to all entities worldwide to help management improve subcontractor occupational safety performance;
- meetings to discuss and share experience with major customers on occupational safety management at our major construction sites;
- identification of all carcinogenic, mutagenic and reprotoxic substances (CMR), and study of the feasibility of replacing them;



Signature of the Occupational Safety Charter applicable to all persons involved in the GB II project

- prevention of noise pollution;
- ► continued implementation of health observatories near the mine sites;
- participation in actions to integrate people with disabilities and in favor of employment continuity which involved the internal health network;
- establishment of the psycho-social risk prevention plan; and
- ► ongoing radiation protection efforts.

In 2008, AREVA embarked on a major program on attitudes and behaviors which builds on the Human and Organizational Factors initiative undertaken with the safety, environment, quality and continuous improvement functions.

# Labour standards

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## AIDS

In November 2008, AREVA's CEO confirmed the group's commitment to non-discrimination in employment following a mobilization campaign launched by the Global Business Coalition on HIV/AIDS, Tuberculosis and Malaria (GBC).

### **AIDS Actions in Niger**

On December 1, 2006, AREVA signed a partnership agreement with the government of Niger for AIDS prevention and patient care in the Agadez region. Designed in close cooperation with the partners, the program given shape by this agreement is based on an equitable distribution of roles and responsibilities for deployment of the following objectives:

- ▶ strengthen the capabilities of the Nigerian public health system;
- ► achieve the best possible impact on health (prevention, screening, patient care);
- ▶ establish innovative ways of interacting with local stakeholders

Two major steps forward are expected from this project:

- ► HIV/AIDS coverage expanded to the surrounding communities; and
- ▶ real continuity in health care (prevention, screening, patient care, support)

Today, the District hospital and the Cominak hospital have equipment for screening and aftercare, and all parties are trained in prevention and patient care. The Agadez Outpatient Treatment Center is operational and receiving outpatients from the region.

To learn more read <u>Global Compact</u> Embedding human rights in business pratice II

## Action by Foundation AREVA

AREVA supports a program led by the charity organization Secours Populaire in the Johannesburg townships which aims to support children aged 4 to 18 by forming groups for writing, the theatre, drawing, etc.

Every year, AREVA employees are asked to participate in the fundraising campaign. Events with Sidaction volunteers, doctors and the group's medical teams are held at participating sites.







# **Environment**

- 7. Businesses should support a precautionary approach to environmental challenges;
- 8. undertake initiatives to promote greater environmental responsibility; and
- 9. encourage the development and diffusion of environmentally friendly technologies.

# Actions

# **Environment Policy**

AREVA's environmental policy was updated in 2007 for the 2008 to 2011 period. It applies to all of the group's entities, both in France and abroad, with implementation a function of local circumstances. The environmental policy is based on six commitments:

## Managing

Ensure compliance with regulatory requirements and the group's standards by performing periodic environmental reviews and deploying Environmental Management Systems at all sites.

- Innovating
  - Integrate environmental impact reduction into the design of products, services, processes and infrastructure covering their entire lifecycle.
  - Prevent risk.
  - Develop and harmonize environmental monitoring and deploy assessment methods to prevent environmental hazards in the chemical, radiological and biological fields.
- Preventing environmental liabilities Prevent liabilities by preserving biodiversity and the environment's future use.
- Minimizing the environmental footprint

Improve environmental performance at constant revenue by reducing:

- the use of resources in the natural environment and the consumption of energy and materials,
- the impact of releases to the atmosphere and to aquatic environments, and
- hazardous and non-hazardous conventional waste.
- Measuring and reporting

Foster dialogue with stakeholders by extending the publication of environmental reports to include all sites with significant environmental aspects.

This program is implemented through quantified objectives that are updated annually based on risk mapping efforts, stakeholder expectations, best internal and external practices, environmental reporting, an external benchmark, and dialogue with the operating entities.



## Environnement

Actions

- 7. Businesses should support a precautionary approach to environmental challenges;
- 8. undertake initiatives to promote greater environmental responsibility; and
- 9. encourage the development and diffusion of environmentally friendly technologies.



### Carbon management

AREVA is one of the first large industrial groups to achieve its objective of carbon neutrality for direct emissions of greenhouse gases (GHG). The group is pursuing this initiative through a three-pronged strategy: identification, reduction and compensation of GHG emissions. Every year, AREVA communicates on the deployment of this strategy with the *Carbon Disclosure Project*.

In addition, AREVA is an active participant in the Global Compact's "Caring for Climate" initiative..

See AREVA's answer to the 2008 Carbon Disclosure Project in the appendix

## Environment friendly products

The group's concern for the environment is written into its mission: helping to supply ever cleaner, safer and more economical energy to the greatest number of people.

This translates into its offering by developing carbon-free power generation solutions (products and services for the nuclear industry and renewable energies) and technologies for efficient power supply (transmission and distribution).



# **Anti- corruption**

10. Businesses should work against corruption in all its forms, including extortion and bribery.

# Actions

## Values Charter

The Values Charter, which explicitly mentions the 10 principles of the Global Compact, describes the group's values. One of them is integrity. The group's employees are impartial and honest in their dealings with government agencies, customers, suppliers and partners. Any report of corruption, whether active or passive, and any solicitation of a third party that leans toward such corruption is called to management's attention right away; the latter immediately attempts to verify its existence, particularly by conducting the appropriate audits, and causes such schemes to cease without delay if they prove to be founded.

## EITI

In 2003, AREVA was one of the first multinationals to subscribe to the Extractive Industry Transparency Initiative (EITI), which aims for greater transparency concerning sums paid by mining companies to the governments of nations in which they are based. With encouragement from AREVA, the government of Niger agreed to apply EITI principles in March 2005. The AREVA mining subsidiaries have been participating since 2007 in the committees and sub-committees that were set up. In Kazakhstan, the group's local operating unit is undergoing EITI accreditation. The AREVA group's business ethics advisor joined the EITI International Steering Committee at the end of 2007.

## Anti-trust Law Instruction

AREVA University and the Legal Affairs Department are offering instruction in Anti-trust Law, illustrated by case law studies.

# Responsible Purchasing: Furthering the 10 Principles of the Global Compact

The starting point for the responsible purchasing initiative was the determination to share the group's values and commitments with our suppliers and partners. Through a concerted effort in the field, 80% of our purchasing volume was covered by the signature of the "Suppliers' Declaration on Sustainable Development" as of the end of 2008. The logical next step for this initiative is the establishment of three additional tools, based on more detailed mapping of suppliers: supplier audits, buyer training, and supplier support.

- Supplier mapping and segmentation, based on potential and risk, is used to rank activities and customize initiatives.
- An annual program to audit some 30 suppliers was set up with the help of an independent contractor. The criteria were established and the first audits launched in the first half of 2008. If the audit reveals a weakness in terms of its sustainable development commitments, corrective action plans will be defined and set up by the supplier working in concert with AREVA, and a follow-up audit may be scheduled.
- These audits are supplemented by training programs for AREVA buyers, making them capable of monitoring suppliers on site. The purpose of this monitoring is to provide more detail to the supplier map, signal possible best practices to be promoted and, when a problem arises, trigger an alert.
- Some suppliers may receive customized support in the spirit of continuous improvement. This support, in response to performance improvement actions and efforts by the supplier, can consist of access to expertise within AREVA, development aid for new markets, or awareness raising and training programs.

# Appendix

# Scorecard of our 2008 sustainable development actions

AREVA's answer to Carbon Disclosure
 Project questionnaire

Objectives	Deadline	Progress	2008 achievements	Upcoming milestones
GOVERNANCE				
Pursue the e-learning program on ethics and compliance. Pursue internal training programs.	Ongoing	۲	Following the deployment of an e-learning module in the United States, adaptation of an international version in English, with distribution started in several European countries. Continuation of the two-day training module for executives in business ethics and the group's values with AREVA University and the business ethics advisor.	Development of local versions of the e-learning module in Chinese and French. Continuation of training for executives in business ethics and the group's values.
Contribute to information and awareness raising activities on Human Rights in business, especially, in 2008, in connection with the 60 <sup>th</sup> anniversary of the Universal Declaration of Human Rights (UDHR).	December 2008	۲	Active participation in the Corporate Social Responsibility and Human Rights seminar in Rabat in February 2008, which promotes the Extractive Industries Transparency Initiative (EITI) and Businesses and Human Rights (BHR, in the process of being established). Working with the Business Leaders Initiative on Human Rights (BLIHR), co-organization of Businesses and Human Rights (BHR), a multilateral seminar held at the Palais de Chaillot in Paris on the occasion of the 60 <sup>th</sup> anniversary of the Universal Declaration of Human Rights.	With EDH, design of a mutual business training program in Human Rights for managers.
Participate in the definition of a "Human Rights in business" mapping tool inspired by the BLIHR matrix.	2008-2010	۲	Participation, together with the Business Leaders Initiative on Human Rights (BLIHR), in the development of an electronic version of strategic mapping software for Human Rights in business.	Validation and internal testing of the mapping tool.
FINANCIAL PERFORM	ANCE			
Deploy the "Sustainable Development Declaration for Suppliers".	2008	۲	80% of the purchases invoiced in 2008 came from suppliers who had signed the "Sustainable Development Declaration for Suppliers".	Beginning in 2009, all new business partners must sign the "Sustainable Development Declaration for Suppliers".
Perform audits of selected suppliers to ensure compliance with the "Sustainable Development Declaration for Suppliers".	2008	۲	Design of criteria for an external sustainable development audit and scheduling of an audit program conducted by an independent company. Five pilot audits of suppliers were initiated in five different countries.	20 sustainable development audits will be conducted in 2009. Supplier support programs are being set up to help correct non-conformities detected during the audits.
Incorporate lessons learned and feedback from external stakeholders to pursue the "Sustainable Development Declaration for Suppliers" initiative.	Ongoing	۲	Among the activities conducted in 2008, some of them were the result of discussions with external stakeholders. In addition to the audit initiative, a half-day training module on responsible purchasing was designed for buyers. It is designed for all of the group's buyers (about 800), and particularly newcomers.	Train 20% of the group's buyers in 2009. Incorporate the sustainable development module i n the professional training program for buyers. Supply buyers with a kit for development of the sustainable development program by suppliers.
Establish the operating excellence initiative in group entities.	Ongoing	•	Roll-out of Lean-6 sigma initiatives intensified at AREVA NP and AREVA T&D. An operating excellence initiative was launched in several AREVA NC entities, including integrated deployment of supply chain, Lean and Six Sigma practices. Related training modules were created. The AREVA NP Project Management Initiative training programs for managers of major projects continued and were intensified. Advanced Contract Management and Advanced Risk Management training programs were created. Lessons learned were collected from Design to Cost (DTC) activities carried out in all AREVA subsidiaries and construction of an "AREVA DTC" standard was kicked off.	Increase the synergies between subsidiaries. Move towards an AREVA standard for operating excellence. Extend training to include all of the AREVA group's engineering sectors. Define the AREVA Design-to-Cost standard with the necessary support organization.

Objectives	Deadline	Progress	2008 achievements	Upcoming milestones		
FINANCIAL PERFORMANCE						
Achieve revenue of more than 20 billion euros.	2012	۲	The backlog grew by 21.1% and revenue grew by 10.4% (compared with 2007). Since 2004, the backlog has been multiplied by 2.5 and revenue has grown by 34%.	For 2009, AREVA expects backlog growth, revenue growth, and rising operating income.		
Achieve double-digit operating margin.	2012	۲	Operating income before the additional provision on OL3 was 1.166 billion euros, giving operating margin of 8.9%. Including the provision on the OL3 project in Finland, operating income came to 417 million euros, i.e. a margin rate of 3.2%.	The group initiated a far-reaching, 2.7-billion euro investment program supported by the French government. It will be funded, among other things, by the disposal of non- strategic assets and a minority share float of certain assets.		
Achieve largely positive free operating cash flow.	2012	۲	Operating cash flow before investment was 943 million euros. AREVA is continuing its capital expenditure program, necessary to the development of its strategic positions. The group invested 1.454 billion euros (net of disposals) in 2008. Net of capital expenditure, operating cash flow came to negative 921 million euros.	The group began a 600-million euro cost reduction program for purchasing and overheads and a 300-million euro working capital requirement reduction.		
CUSTOMER SATISFAC	CUSTOMER SATISFACTION					
Track the implementation of performance improvement plans defined following the 2005 customer satisfaction survey.	Ongoing	۲	The action plans that came out of the 2005 satisfaction survey were pursued. In particular, the 19 major projects launched following the survey were successfully completed.			
Revitalize the customer listening process and reaffirm our bias towards the customer. Expand the coverage of customer satisfaction surveys by increasing the number of interviewees.	Ongoing	۲	A customer satisfaction survey was conducted in 2008 covering all of the group's nuclear operations: a total of 1,000 interviews were conducted, including 250 face-to-face interviews and 750 online questionnaires. 200 actions were identified, 45% of which relate to the proposal process and negotiations, 25% to the customer relationship, 25% to products and services, and 15% to project management. The survey helped define three performance improvement objectives: highlight our innovative offers designed to meet customer expectations in our commercial proposals, maintain our ability to deliver both growth and performance, and continue to make progress in very high added-value fields.	Revitalize the customer listening process and prepare a new survey for the entire group. Drive progress on action plans. Seek out and optimize convergence on sustainable development between AREVA and its customers.		
Define and implement the action plan resulting from the T&D division's customer survey.	Ongoing	۲	29 action plans, 550 actions. 103 actions described and pursued in the I-Nexus computer application.			

Objectives	Deadline	Progress	2008 achievements	Upcoming milestones	
Obtain OHSAS 18001 certification for all sites with significant safety aspects by the end of 2008.	2008		87 sites certified under OHSAS 18001 out of 120 sites with significant safety aspects.	Obtain OHSAS 18001 certification for any new entity with significant occupational safety aspects within three years of its entry into the group.	
Achieve an average frequency rate of < 3 for work-related accidents and an average severity rate of < 0.15 eighteen months earlier than the previously announced target of 2010.	June 2009	۲	FR < 3.19; SR < 0.10.	Prepare a new AREVA health and safety policy in 2009.	
Demonstrate our ability to limit employee exposure to 20 mSv/year over twelve consecutive months.	Ongoing	٥	Fewer than 17% of the group's employees and 8% of its subcontractors' personnel received individual doses of more than 2 mSv. 12 employees working at customer sites in the United States received individual doses of more than 20 mSv. The maximum individual dose was 24.4 mSv.	Strengthen our practices in liaison with our utility customers so as to achieve the objective sustainably.	
Implement the health policy established in 2007.	Ongoing	۲	A Medical Department with a team of three physicians was created. The psycho-social risk limitation initiative was launched.	Prepare a new AREVA health and safety policy in 2009.	
Continue to recruit, integrate and develop employees to keep pace with growth and demographic renewal.	2008	۲	Actions towards schools: 100 school ambassadors were named in France, 200 were named worldwide. The ambassadors carried out 150 actions. Senior careers: 100 champions were trained, 50 assignment contracts were signed. Integration of new hires: the process was defined and has been communicated to the entire group. Related communication tools have been provided. In France, four integration seminars were conducted in 2008 (800 people inducted).	Communication on local action taken. Expand the practice overseas. Continue deployment of the Senior Personnel program in France and prepare for its deployment in Germany. Set up a professional training program for new hires (1,400 people in 2009) at the campus in Aix-en-Provence, France.	
Facilitate the integration and continued employment of workers with disabilities.	2008	۲	<ul> <li>Positive factors in France: Employment contracts: 86 in 2008, &gt; 50% for full-time positions. Business with companies from the sheltered sector: 3.8 million euros. National Week for the Employment of Persons with Disabilities: 24 job events and 130 local actions. Sponsor of the Paralympic Games in Beijing, September 6 to 17, 2008.</li> <li>Positive factors in Europe: Open Dialogue through Equal Opportunities project (ODEO): 80 human resources personnel, managers and employee representatives attended the European seminar. 10 regional European action plans defined.</li> </ul>	Develop a local network of multi-disciplined teams and involve the health network.	
Expand the EOS 2008 survey to include all employees worldwide.	2008	۲	67,000 employees in 100 countries were invited to participate in the Employee Opinion Survey, and 50,000 employees responded to the questionnaire, which was built around AREVA's 10 sustainable development commitments.	Communicate on results. Involve each business unit and support function in analyzing survey results and defining the implementation of improvement programs.	

Objectives	Deadline	Progress	2008 achievements	Upcoming milestones	
RISK MANAGEMENT AND PREVENTION					
Deploy the additional performance indicators for safety tested in 2007.	2008	۲	Based on the feedback from 2007, the reporting procedures were updated in 2008 to incorporate additional performance indicators in the nuclear entities' reporting.	Analyze the results achieved for all entities in order to sustain them, and adjust selected performance indicators as appropriate.	
Deploy the human and organizational factors initiative (HOF) throughout the group.	Ongoing	۲	Documentation, distribution and explanation of the group's commitments in terms of HOF. An HOF specialist was hired to head up the group's initiative. A safety and security convention focused on HOF was held and was the first large-scale sharing of experience. HOF coordinators were appointed in 17 of the 19 business units.	Continue to improve the systematic inclusion of HOF in all of the group's activities.	
Deploy event analysis training incorporating the study of human factors.	2008	۲	The training program is operational, several sessions are regularly held every year.	Expand the training beyond France.	
Perform or update an accident risk analysis for all sites with significant environmental aspects (SEA).	2011	۲	40% of the SEA sites have updated the analysis.	Continue multi-year deployment.	
Perform or update a health risk analysis for all sites with significant environmental aspects (SEA).	2011	۲	As of the end of September 2008, 61% of the health risk assessments had been updated at AREVA NC, 30% at AREVA NP, and 12% at AREVA T&D.	Continue multi-year deployment.	
Draw up an updated diagnosis of soil conditions at all SEA sites.	2011		This initiative was kicked off in 2007 and was actively pursued in 2008.	Set up a sustainable management plan for environmental liabilities as needed.	
ENVIRONMENTAL PRO	TECTIO	N			
Continue to deploy the 2008-2011 environmental plan.	Ongoing	۲	Three training sessions were held, two in France and one in India. As of the end of 2008, more than 120 people had been trained.	Raise subcontractor and supplier awareness in the environmental field.	
Maintain ISO 14001 certification for SEA sites.	Ongoing	۲	All sites maintained their certification.	Secure ISO 14001 certification for all new SEA sites within a maximum of three years of their acquisition.	
Carry out 80 environmental reviews.	2008	۲	90 reviews were performed.	Perform a hundred topical environmental reviews in 2009.	
Based on site sensitivity mapping, expand the biodiversity aspects of the impact studies (impact on plant and animal ecosystems).	Ongoing	۲	Two studies were carried out: the "AREVA and Biodiversity" study was updated, and the study "Identification of Protected Areas Near Our French Sites".	Develop an educational deployment kit (description, assessment tool, etc.).	

Objectives	Deadline	Progress	2008 achievements	Upcoming milestones	
ENVIRONMENTAL PROTECTION					
Continue to reduce GHG emissions, particularly SF <sub>6</sub> , N <sub>2</sub> O and CO <sub>2</sub> , in compliance with the group's carbon neutrality commitment.	2011	۲	Direct emissions of GHG were reduced by 22.4% compared with 2007. A carbon compensation contract was signed with EcoAct. In 2008, 100% of all direct emissions were offset.	Put a process in place to eliminate N <sub>2</sub> O emissions at the Comurhex Malvési site. Reduce direct GHG emissions by 50% by 2011 compared with 2004 (at constant activity). Continue to inventory indirect emissions.	
Improve the group's eco-efficiency by reducing our environmental footprint, focusing our efforts on major contributors.	2011	۲	Change in consumption at constant revenue (2008 vs. 2004): -23% for energy, -50% for water, +71% for waste recycling.	Continue multi-year deployment in accordance with the 2008-2011 environmental plan.	
Set up a standard environmental liabilities management plan.	2008	۹	A procedure and a methodology handbook were drafted.	Distribute and implement the procedure and handbook in 2009.	
Establish performance improvement objectives for radioactive waste management.	Ongoing	•	Commitment to programs for legacy waste retrieval and packaging, scheduling of dismantling waste management.	Pursue the initiative for comprehensive management of legacy waste and of materials for which no disposal yet exists so as to have the necessary information to establish performance improvement objectives.	
INNOVATION					
Broaden the renewable energy strategy.	Ongoing	۲	The portfolio of renewable technologies was defined: biomass power plants, fuel cells and offshore wind energy.	Rely on AREVA's skills and technical synergies to improve technology performance.	
Expand eco-design practices to include all new products.	Ongoing		<ul> <li>Development of reactors (Atmea 1, Kerena, FBR, etc.) incorporating environmental, social and societal aspects.</li> <li>AREVA T&amp;D: – more than 60 people were trained in eco-design, 40 in India (Kalkota and Naini) and 25 in Great Britain (Stafford);         <ul> <li>precise, measurable criteria for eco-designed product certification were defined and validated;             <ul></ul></li></ul></li></ul>		
Develop an eco-design plan for nuclear fuel based on lifecycle analysis and R&D projects.	2010	•	The Fuel business unit published its integrated management manual – Quality, Safety, Environment – for the entire sector (design and fabrication) and the three regions of France, Germany and the United States.	Gradually roll out processes and procedures from now to the end of 2010.	
Pursue our innovation activities, without losing sight of customer requirements, focusing in particular on partnerships, eco-design, mid to long range planning, and information and communication technologies.	Ongoing	۲	Several high-level experts from the fields of aeronautics, nanotechnologies and applied mathematics came to reinforce the group's skills.	Make these experts available to key projects.	

Objectives	Deadline	Progress	2008 achievements	Upcoming milestones	
Support a dozen large-scale development projects, in terms of jobs, via AREFADelfi.	Ongoing	۲	15 projects were approved by the commitment committee. They represent 542 direct three-year jobs, two of which concern disabled entrepreneurs. In Gabon, four projects were formalized (public works, truck farming). In Niger, the partnership with Sinergi, a risk capital company formed with French and local partners, was expanded in 2008. A partnership was set up with Crédit Mutuel du Niger for microcredit operations.	Identify and support 15 or so projects (including Bure and projects for the disabled). Provide active support to the Mining business unit in Africa.	
Provide economic development support in departments hosting the Bure disposal site in France.	Ongoing	۲	In the Bure area, five projects were validated that will potentially create 298 jobs.		
Continue humanitarian aid activities, with greater employee involvement.	Ongoing	۲	Fundraising for Sidaction (10,000 euros), onsite events and onsite fundraising in France for the charity organization Secours Populaire's Green Father Christmas campaign (Père Noël Vert). Donation of 350,000 euros to the Red Cross following the earthquake in Sichuan Province, China. Support to 20 AREVA employees for their skills volunteering efforts (humanitarian leave).	Continue awareness raising programs internally: Sidaction and Secours populaire. Produce panels presenting the different humanitarian missions. Showcase the "Get involved" section offering volunteer assignments to French employees.	
Build public awareness of activities carried out by the Foundation.	Ongoing	۲	Publication of an electronic travel log of employee volunteer missions. Publication of a brochure presenting the Foundation. Hosting of the intranet heading. Press conference at the signature of the partnership with the Pasteur Institute of Shanghai.	Pursue communication programs. produce films on the Foundation's activities and put out press releases regularly (every month) on the intranet and internet.	
DIALOGUE AND CONS	ENSUS I	BUILDIN	IG		
Update local stakeholder mapping performed at least three years ago.	Ongoing	۲	Nine mapping exercises were completed in 2008, bringing the total number to 33 since the program was started.	Conduct 10 mapping exercises in 2009.	
Continue to implement "dialogue action plans" at all sites and monitor their progress.	Ongoing	-	64% of the sites that developed such a map (between 2004 and 2008) have drawn up action plans.	Continue implementation.	
Hold a third Stakeholders Session with our stakeholders.	2008	۲	Third Stakeholders Session held in October 2008.	Design and organize a consensus building session specific to the United States.	
Set up health observatories around the main mining sites, beginning with Niger and Gabon, before the end of 2008.			In Gabon: establishment of post-professional medical care in early 2009. In Niger: post-professional medical care of former miners will start in 2009, and a broader survey on the 1970-2005 period will be initiated.	Set up post-professional medical care for former miners in Niger and Gabon. Study the feasibility of expanding the health observatories to Canada and Kazakhstan.	

#### CDP 2009 Information Request

Respondent: Areva CI

#### General introduction

All over the world, AREVA provides its customers with solutions for carbon-free power generation and electricity transmission. With its knowledge and expertise in these fields, the group has a leading role to play in meeting the world's energy needs.

Ranked first in the global nuclear power industry, AREVA's unique integrated offering covers every stage of the fuel cycle, reactor design and construction, and related services.

In addition, the group is developing a portfolio of operations in renewable energies. AREVA is also a world leader in electricity transmission and distribution and offers its customers a complete range of solutions for greater grid stability and energy efficiency.

Sustainable development is a core component of the group's industrial strategy. Its 75,000 employees work every day to make AREVA a responsible industrial player that is helping to supply ever cleaner, safer and more economical energy to the greatest number of people.

#### **Risk and Opportunities**

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

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

We consider our company to be exposed to regulatory risks.

Yes, although not in a significant manner at the present moment, given the nature and the size of our industrial facilities and their emissions. Activities related to the nuclear fuel cycle emit very few GHGs and the full life cycle emissions associated to nuclear electricity are very low.

AREVA complies with the rules and regulations where and when they exist, and we follow very actively the development of the international negotiations on climate change, and their potential impacts for both ourselves and our customers, internationally as well as nationally.

AREVA's European industrial facilities are subject directly to the EU Emissions Trading Scheme (ETS). In the 1st trading period AREVA was subject to the ETS for 2 sites (combustion units in France) the emissions of which never exceeded the allocated certificates. In the 2nd trading period that started in January 2008, AREVA is subject to the EU ETS for one site only: AREVA NC La Hague. We anticipate that the package of EU climate and energy measures approved in December 2008 will form the basis of the 3rd trading period.

The new regulatory measures that could impact AREVA business are the following:

• For our customers (electricity utilities): power plants: emissions to be cut to 21% below 2005 levels by 2020 by granting fewer emission allowances under the EU Emissions Trading System (ETS). This could lead to increasing the share of nuclear power in the European mix and be an opportunity for AREVA

• For our own factories, the modifications of the scope of the EU directive (inclusion of major chemical installations and additional gases such as N2O for the emissions trading period after 2012, exclusion of the combustion plants of less than 35 MW) could modify the present perimeter of our factories impacted by the EU ETS.

• The integration of other GHGs in the European trading scheme (SF6, N2O) has been anticipated as we currently implement an emissions reduction plan for these gases too. It is worth noting that we already have a project to reduce our N2O emissions in one of our major facilities.

In case of an international agreement at the end of 2009 (Copenhagen), the reduction objective of the EU package on climate and energy would become 30% and could impact AREVA for our factories affected by the EU ETS (actual and future: see above with N2O). Such new international agreement could also impact AREVA worldwide as we have manufacturing facilities in 43 countries and emissions in those countries of different GHG, in particular CO2, N2O and SF6.

The different units of the AREVA Group are perform risk analysis including regulatory risks and constantly improve those studies, reviewing the hypothesis to take into account any new risk. The regulatory constraints associated with climate change are analyzed by a group of experts (Environment department, Renewable Business Unit, Sustainable Development department, Finance department). We also seek to collaborate constructively and at an early stage with decision makers on these issues.

Further information

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

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

We consider our company to be exposed to physical risks.

Yes, as all industrial activities can be.

The basic principles applied to assess our exposure to physical risks resulting from climate change are directly derived from the safety and security analysis that our industry systematically performs and improves. The assumptions are permanently reviewed to take into account any new physical risk or event.

In accordance with applicable standards and regulations, the nuclear and high risk facilities (SEVESO plants) of the group are designed to withstand a very large range of adverse circumstances, including extreme weather events. The risk is taken into consideration in the design of the facilities based on local conditions with significant margins. Those safety analysis are periodically reviewed to take into consideration changes in regulation and hypothesis used in the design and in particular on extreme weather events.

For other facilities, regarding the risk of flood and because of the location and kinetic phenomena, large sites (according to their vulnerability) already have a warning system and procedures in place. For other weather events like strong winds and extreme precipitations, thorough analysis are still in progress, and will be fed into the design and or operating parameters of our installations.

For the better assessment and integration of extreme weather conditions, we have called upon third party expertise to validate the potential issues and our responses

#### CDP 2009 (CDP7) Information Request

and priorities in the light of the climate change expected by the end of the century.

We also use our insurers and re-insurers worldwide to benefit from their watch on the climate risks related (zoning, dedicated Geospatial Systems).

The subject that may affect our business in the very short term is the drought and the resulting shortage in water supply. It was decided to expand at European level the perimeter of the observatory set up since 3 years in France. The scope of the observatory covers France and data is available from the French Environment Ministry. It provides AREVA with its needed vigilance information via the internet.

On the topic of water resources, eco-efficiency actions (cooling loops) and reduction of releases as low as reasonably achievable are the preferred solutions preferred solutions and have been the subject of a particular attention in recent years. For example, certain sites of our Zirconium activity have planned investments in cooling loops, other sites like Comurhex Malvesi or our mines have invested in cooling towers to reduce their water consumption in areas were water is in short supply. Water management is also a permanent and top priority for our development projects in the front-end activities of the fuel cycle (mining in particular).

The different units of the AREVA Group are perform risk analysis and constantly improve those studies, reviewing the hypothesis to take into account any new risk. To this end, the group has drawn up a business risk model (BRM) to be used by its business units. Working from a defined number of typical risks or families of risk (BRM risk), the model indexes all of the foreseeable or unexpected situations or events that could have an impact on employee safety, on the environment, on the financial performance of the business unit, of the subsidiary or even of the group, and on its corporate reputation. The BRM is enhanced based on best practices and lessons learned. Using the BRM as a starting point, each business unit establishes an operational risk map that graphically illustrates the seriousness of its risks and its degree of management at any given period. The risk map defines criteria for implementing appropriate action plans

Further information

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

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

We consider our company to be exposed to other risks.

#### Potentially yes.

Climate change is one of the biodiversity erosion mechanisms: it has an impact on the distribution, migration or survival of species (fauna and flora), particularly the difficulties of adaptation to high temperature and desynchronization of the food chain caused by the early seasons. Biodiversity protection is one of the challenges for the AREVA group, in particular in our mining sites. We have to be able to differentiate the impacts of our activities (monitoring of the evolution of ecosystems impacted) and the impact of climate change on biodiversity.

Of a different nature, and potentially very important to us, is the vulnerability of local communities to the impacts of climate change. A significant part of our workforce, as well as sub-contractors, originate from these communities. We therefore need to understand and anticipate the possible impacts and remedies to ensure a stable continuation of our activities.

Further information

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

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

#### Regulatory requirements present opportunities for my company.

Today's or anticipated regulatory requirements regarding climate change can provide business opportunities for AREVA.

For instance, the regulatory requirements associated with carbon emissions lead to establishing a visible and possibly long term cost for CO2 emissions. This enhances the competitiveness of the CO2-free solutions that we are offering our customers: nuclear power plants, biomass plants, wind energy.

AREVA already offers its customers a large number of innovative products and technologies for climate protection and for energy and resource efficiency that help meet regulatory requirements. Examples of these include:

A/ The offer of our expertise and skills throughout the uranium cycle to make nuclear energy available to all countries that have developed the relevant capabilities. The group is the world leader in providing products and services for nuclear power generation and the only company to cover all industrial activities in this field.

B/ Our Renewable Energies Business Unit (offer of decentralized energy supply - wind power and bioenergies - and hydrogen energy) complements the group's core mission: enabling everyone to have access to ever cleaner, safer and more economical energy.

Bioenergy has great potential. US Federal and state environmental agencies consider biopower carbon neutral, a significant advantage over traditional power facilities. ADAGE - a newly created JV between Duke Energy and AREVA - is well positioned to win a significant portion of the rapidly expanding U.S. biomass market as biomass provides an alternative base load power source for states concerned with CO2 emissions. The environmental commitments outlined in the ADAGE strategic plan were featured at the Clinton Global Initiative 2008 Annual Meeting in New York.

Moreover, projects implemented through our Renewable Energies Business can generate marketable carbon credits such as CERs and VERs.

C/ Offering solutions for reducing SF6 emissions: AREVA Transmission and Distribution (AREVA T&D) has worked to develop a patented special profile for the gaskets with three seals. High tightness and low leakage rates are achieved thanks to a huge inner sealing surface. This surface is broader than an ordinary O-ring, for instance, therefore the SF6 losses of the flange are minimized. This improvement represents an attractive design for our customers.

European Regulation 842/2006 dealing with certain fluorine-based greenhouse gases specifies rules for the confinement and recovery of SF6. The regulation's goal is to avoid any release of SF6 into the atmosphere by fixing rules such as the identification of the presence and quantity of SF6 incorporated in high voltage switchgear, and the recovery and/or transportation characteristics of the SF6 in any container. The regulation also stipulates the obligation to recover the SF6 during all maintenance operations or on disassembly of a device with the aim of recycling it, regenerating it or incinerating it.

D/ AREVA's offer to analyse the electrical installation of our customers (industries or utilities) and to propose and supply the most adapted compensation solution (air

core reactors and capacitors designed and manufactured in our units) to reduce electricity consumption and GHG emissions.

E/ The AREVA T&D division helps its customers improve their grid operations while reducing CO2 emissions, 25% of which come from electricity generation. There are four major areas of improvement:

· Demand-side management (DSM) programs that encourage consumers to modify their level and pattern of electricity usage

- Low CO2-emission energy sources
- Improved network efficiency
- Reduced emissions from grid equipment

As an example, the Nordic Operations and Information System (NOIS) combines all these areas. NOIS, an energy management system designed by T&D and implemented in Northern Europe, interconnects hydro, wind and solar plants, helping users optimize generation resources. Utilities access production and supply data in real time, then send the right amount of power from the right source to the right customer at the right price.

Another way AREVA tries to cut CO2 is by boosting transmission efficiency by reducing losses. Most power networks supply alternating current (AC), but AC transmission entails major losses. New AREVA technologies enable efficient trading and transmission via High Voltage Direct Current (HVDC) networks, which immediately reduces losses. HVDC technology is the only way to connect different AC frequencies or voltages together; for example across regional or country boundaries. As such, it is the most efficient way to transmit large quantities of electricity over long distances. As a result, HVDC is in high demand to link AC networks to low-emission power sources, such as offshore wind parks.

There is no doubt that the Kyoto Protocol, the EU package on climate and energy and the political initiatives on renewable and low carbon energies multiplying in Europe, North America as well as in emerging countries such as China, India and Brazil are all catalysers for creating business opportunities for our Group.

Further information

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

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

Physical changes present opportunities for my company.

In addition to possible impacts to our own industrial operations we seek to monitor very accurately the issues that our customers (mostly electricity utilities) can or could face as a result of climate change.

Climate change impacts that have already occurred offer AREVA new market opportunities. AREVA is developing and selling products and technologies that help mitigate and adapt to climate change and therefore have sales potential partly connected with changes in climate conditions.

We seek to provide our customers with reliable and advanced products and technologies, as well as with related expert services, to help them find the appropriate solutions to the physical risks that they incur or anticipate.

Such products, technologies, and expert services cover the following areas :

-nuclear power stations and the associated fuel cycle supplies

- high power wind turbines

- turnkey biomass and biogas power plants and small hydroelectric plants.
- the transmission and distribution grids and associated equipment

Further information

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

6.1 Does climate change present other opportunities for your company?

Climate change presents other opportunities for my company.

We believe that market opportunities will grow as new energy systems as well as new strategies and behaviours emerge as a response to climate change.

For instance in the field of nuclear energy, climate change is a driver to do more than just maintaining the present fleet of about 360 GWe. A nuclear renaissance is occurring all over the world. As a result, the size of the market is expanding.

The development of our commercial positions can be achieved by strengthening our lead over competitors in terms of innovation. Our approach gives priority to the continuous improvement of existing products and services through contact with our customers while investing in future technologies. Our objective is to strengthen our position as number 1 in nuclear energy and number 3 in the transmission and distribution of electricity worldwide.

Clearly, nuclear energy will be at the forefront of these new means of electricity production thanks to 3rd generation, EPR power plants, but also via 4th generation fuel reactor systems which we are developing with our partners.

The stakes in the field of renewable energy strengthen AREVA's strategic positioning on the CO2-free energy market, bringing complementary solutions to nuclear technologies. Renewable Energies Business Unit was created in November 2006 and has a strong involvement in wind energy, biomass and hydrogen energy. This sector offers very strong growth prospects.

>> Wind power

At the end of 2007, offshore wind energy contributed some 1100 MW in Europe. By the end of 2010, installed capacity should come to 3 to 4 GW. With annual growth of 1 to 3 GW, wind energy should represent 10 to 15 GW in 2015. In Germany, regulatory conditions are favorable to the development of offshore wind farms. Close to 20 projects representing 6 GW of capacity have been authorized. Great Britain is also a very promising market, with 8 GW expected by the end of 2014.

Our strategy: to develop rapidly Multibrid to become a key playor in the offshore wind expected to yield very strong growth. We are developing high power turbines that convert the wind's motive power into electricity. In October 2007, we acquired a 51% stake in Multibrid, a German manufacturer of offshore wind turbines. The company' scope covers:

Development of wind technology

• Design and manufacture of 5 MW offshore M5000 wind turbine

• Design, testing, assembly and maintenance services.

The M5000 turbine offers a leading-edge technology with a light-weight hybrid drive-train solution, suited for all foundation types (such as tripod anchorage). Thanks to their enclosed, wear-resistant construction, the M5000s are particularly designed for use in the harsh conditions of the sea. Little maintenance and high technical availability are guaranteed by the optimum protection against corrosive sea air, the remarkably low tower-head weight of 310t, and the minimum-wear design of components.

Multibrid offers marketing and industrial synergies with AREVA's transmission and distribution division, a leading supplier of equipment for connecting wind turbines to the grid.

#### >> Bioenergies

A report by the International Energy Agency, "Energy Technology Perspectives: Scenarios and Strategies to 2050", forecasts that world electricity production from biomass will rise from 1.3% in 2003 to 5% in 2050. Most of this growth will occur in high potential emerging countries such as India, China and Brazil. Our goal: ultimately, 60% of the sales revenue from the bioenergy business will come from non-European countries.

We supply turnkey biomass and biogas power plants that convert organic materials of plant and animal origin into energy. In January 2008, we acquired 70% of Koblitz, a Brazilian firm that supplies power plants fuelled with sugarcane bagasse and small hydroelectric plants. We have 100 power plants in operation or under construction worldwide in Europe, Asia and South America representing more than 2,500 MW of installed capacity.

AREVA and Duke Energy created ADAGE<sup>™</sup> in 2008, an innovative joint venture dedicated to the development of green biopower energy solutions for U.S. electricity customers.

ADAGE will facilitate the development of biopower plants that will use wood waste to produce electricity. According to the agreement, AREVA will design and build biomass power plants. Duke Energy Generation Services (DEGS), a commercial power business unit of Duke Energy that owns and develops renewable energy, will manage operations. For each project, ADAGE also will negotiate power purchase agreements and fuel contracts, and secure suitable sites. Hence, ADAGE will provide customers a fully integrated solution.

The U.S. Energy Information Administration estimates the total installed capacity of wood biomass power generation is 6,000 megawatts. EIA and several energy consulting firms predict that this figure may double over the next 10 years.

#### >> Hydrogen energy

Through our subsidiary Helion, we offer solutions for producing hydrogen by water electrolysis and for generating electricity with fuel cells. The fuel cell combines hydrogen and oxygen via a membrane, simultaneously creating water, heat and electricity. Reverse process is used in electrolysis.

Nuclear energy and renewable energies are complementary in a CO2-free energy mix. Such an energy mix combines cost-competitive centralized base load power backed by 40 years of experience with recent energies whose large-scale development will help make them competitive.

In the T&D business the optimization of interconnections and grid management is also an opportunity.

Further information

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

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

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

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

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

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

Start date: 01 January 2008 End date: 31 December 2008 Financial accounting year: 01 January 2008

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

8.1. Please indicate the category that describes the company, entities, or group for which Scope 1 and Scope 2 GHG emissions are reported. Companies over which financial control is exercised – per consolidated audited Financial Statements.

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

All parts of our business/sources of GHG emissions are accounted for the scopes 1 and 2 of the ISO 14064-1, including the transportation (within SCOPE 1 emissions such as short and long term vehicle rentals)

Concerning the scope 3, the indirect emissions linked to

• Business travel (air travel only)

• Dedicated employee transportation (bus services, short commuting flights within the mine)

• Transportation of all nuclear materials (class 7)

#### are also reported since 2008.

We are still working on the emissions linked to transportations of goods (non nuclear) to get a complete reporting of our emissions (Transportation of goods: manufactured or semi-finished products, raw materials, waste, products, equipment, inputs (deliveries) and outputs (dispatches) at an AREVA site, all transportation excluding documents.). A first counting has been done in 2008 for 2007 emissions. Our reporting protocol has been modified to allow the monitoring of those emissions.

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

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

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

AREVA methodology is consistent with the standard ISO 14064-1 for the following of its scope 1 and 2 emissions

AREVA is monitoring its direct greenhouse gas emissions (GHGs) for the entire AREVA group: emissions from gases of anthropogenic origin responsible for the increase in the greenhouse effect, namely CO2 (carbon dioxide), CH4 (methane), N2O (nitrous oxide) and halogenous compounds (CFC, HCFC, HFC, PFC and SF6).

#### Direct GHG emissions may result from:

- Fossil fuels burned by operating companies in power plants, in order to produce energy or utilities,
- Fossil fuels burned by operating machinery with thermal engines used on group sites,
- Various carbonaceous materials burned by operating companies in incinerators, in order to dispose of hazardous and non-hazardous industrial waste,
- Production processes, in particular those that use carbon, nitrogen or fluorochemical compounds,
- Leakage of halogen compounds used as insulation in the process of manufacturing electrical equipment,
- Leakage of coolant, refrigerant and fire-retardant fluids used on industrial sites,
- Solvents used to treat surfaces.

For sites concerned, direct GHG emissions appearing in the National Allowance Plan & Allowance (from EU ETS) are the emissions coming from all sources related to activities from the installation to which quotas are affected. Those emissions are declared and checked by an approved organization, then validated by the Authority. GHG emissions that fall under the European Emissions Trading Scheme are reported in accordance with the European Monitoring and Reporting guidelines.

Total GHG emissions is the sum of Indirect GHG emissions (emissions due to electricity and thermal energy imported and purchased for site operation) and Direct GHG emissions (see definition above).

The methodology for determining emissions is consistent with the GHG Protocol: we report our GHG emissions according to the requirements of the internal reporting protocol. This protocol defines the reporting principles, methods for determining emissions, parameters requiring reporting, emission sources, conversion factors, GWPs and more. Process-related emissions are to be determined via three methods: i) based on measurements using standardized or accepted methods, ii) based on calculations using nationally or internationally agreed estimation methods and emissions factors

The calculation of direct CO2 emissions by fuel combustion in company-owned central power plants and boilers is based on fuel consumption.

Indirect CO2 emissions from import and export of electricity are to be calculated using calculation schemes of the GHG protocol. Our internal reporting protocol is revised and updated on a yearly basis.

Select methodologies:

ISO 14064-1

Please also provide:

#### 9.2 Details of any assumptions made.

Concerning Scope 1 emissions, with regard to GHG emissions from fuel consumption, only direct GHG emissions generated by operating equipment used onsite are included in the reporting scope. The emissions for vehicles circulating offsite (e.g. company cars and commercial vehicles), as well as service vehicles circulating onsite and/or offsite (e.g. on construction sites) are not included in the scope of this indicator.

Indirect CO2 emissions from import of energy are to be calculated using calculation schemes of the GHG protocol.

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

• List of GWPs by type of gas: reference IPCC 2007 Fourth Assessment Report, 2007, Global Warming

• Emission Factor due to electricity purchased per country in g CO2/kWh; Source: International Energy Agency Data Services, 2005 : CO2 emissions from fuel combustion (2005 Edition); Table: Electricity Emission Factors, All Fuels

• Source: OMINEA (Oranization and methods for national inventory of atmospheric emissions in France ) national inventory report 3rd edition - February 2006 (CITEPA)

Carbon Assessment, Emissions factors guide V 5.0, January 2007

• GHG transport module by ADEME/EpE

Select calculation tools:

9.4 The global warming potentials you have applied and their origin. See Attachement AREVA indicator definition scope 1&2

9.5 The emission factors you have applied and their origin. See Attachement AREVA indicator definition scope 1&2

Further information

http://cdp.cdproject.net/attachedfiles/Responses/53247/10345/AREVA-GHG-Scope 1-2-Measuring-Protocole.pdf

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

Instructions for question 10 and question 11 (following page)

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

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

Please answer the following questions using Table 1.

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

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

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

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

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

Reporting year Q7.1 Start date	01/01/2008
Reporting year Q7.1 End date	31/12/2008
10.1 Total gross global Scope 1 GHG emissions in metric tonnes CO <sub>2</sub> -e	771648
10.2 Gross Scope 1 emissions in metric tonnes CO <sub>2</sub> -e by country or region	
Europe	536536
Asia	40171
South americas	2793
North americas	66626
Africa	125521

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

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

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

10.3. Business division and/or10.4. Facility

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

Table 2 - Please use whole numbers only.

Business Divisions - Enter names below	Scope 1 Metric tonnes CO2-e
Total gross global Scope 1 GHG emissions in metric tonnes CO <sub>2</sub> -e - answer to question Q10.1	771648
Corporate	7716
Transmission & distribution	239211
Back end	92598
Reactor & services	54015
Front end	378108

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

Table 3 - Please use whole numbers only.

Facilities - Enter names below	Scope 1 Metric tonnes CO2-e
Total gross global Scope 1 GHG emissions in metric tonnes CO <sub>2</sub> -e - answer to question Q10.1	771648

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

Table 4 - Please use whole numbers only.

Scope 1 GHG Type	Unit	Quantity
CO <sub>2</sub>	Metric tonnes	370993
CH4	Metric tonnes	
CH4	Metric tonnes CO <sub>2</sub> -e	
N2O	Metric tonnes	
N2O	Metric tonnes CO <sub>2</sub> -e	172808
HFCs	Metric tonnes	
HFCs	Metric tonnes CO <sub>2</sub> -e	
PFCs	Metric tonnes	
PFCs	Metric tonnes CO <sub>2</sub> -e	
SF6	Metric tonnes	
SF6	Metric tonnes CO <sub>2</sub> -e	206757

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

Further information

For question 10. 5 We have an other section called Others that cover mainly HFC,PFCs... They represent 21 089 t CO2 e

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

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

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

Electricity that IS counted in calculating the grid average emissions factor:

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

Electricity that is NOT counted in calculating the grid average emissions factor:

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

<u>Click here</u> to see the instructions from the previous page on answering question 11.

Please answer the following questions using Table 5.

Please provide:

11.1. Total gross global Scope 2 GHG emissions in metric tonnes of CO<sub>2</sub>-e.

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

11.2. Country or region

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

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

Reporting year Q7.1 Start date	01/01/2008
Reporting year Q7.1 End date	31/12/2008
11.1 Total gross global Scope 2 GHG emissions in metric tonnes CO <sub>2</sub> -e	356627
11.2 Gross Scope 2 emissions in metric tonnes CO <sub>2</sub> -e by country or region	
Europe	185713
Asia	54410
South americas	1482
North americas	56575
Africa	58447

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

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

11.3. Business division and/or11.4. Facility

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

Table 6 - Please use whole numbers only.

Business Divisions - Enter names below	Scope 2 Metric tonnes CO2-e
Total gross global Scope 2 GHG emissions in metric tonnes CO <sub>2</sub> -e - answer to question Q11.1	356627
Corporate	7132
Tranmission & Distribution	82024
Back end	49928
Reactor & services	42795
Front end	174747

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

Table 7 - Please use whole numbers only.

Facilities - Enter names below	Scope 2 Metric tonnes CO2-e
Total gross global Scope 2 GHG emissions in metric tonnes CO <sub>2</sub> -e - answer to question Q11.1	356627

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

Further information

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

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

Indirect GHG emissions are assessed from the electrical and thermal energy purchased or imported by the sites; they are calculated as follows:

Indirect GHG emissions =  $\Sigma$  EF elec \* 10-3 \* electricity consumption +  $\Sigma$  EF th \* thermal energies consumed

where

Indirect GHG emissions (in tCO2e): GHG emissions due to electrical energy purchased and/or imported and to thermal energy purchased and/or imported for group site

EFelec (in gCO2/kWh): CO2 emission factor for electricity production. This factor depends on the type of energy used for electricity below). The EF must be multiplied by 10-3 to obtain the result in tCO2.

Electricityconsumed (in MWh): electricity consumed per country.

EFth (in tCO2/MWh): CO2 emission factor for thermal energy. This factor depends on the type of energy used for thermal energy production and therefore differs according to the producer

Thermal energy consumed (in MWh): thermal energy consumed by the site.

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

We do not retire any certificates associated with zero or low carbon electricity.

Further information

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

- For each of the following categories, please:
- Describe the main sources of emissions,
- Report emissions in metric tonnes of CO2-e,

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

#### Notes about question 13

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

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

13.1 Employee business travel Describe the main sources of emissions

#### Description of the sources:

In 2008, AREVA decided to extend its environmental reporting to indirect GHG emissions from business trips (air+any transportation by bus, or plane (mining activity), in the context of a service dedicated to transporting AREVA employees to their workplace)

Employee business travel concerns AREVA employees using:

\_ any air transport for work assignments

\_ any transportation by bus, or plane, in the context of a service dedicated to transporting AREVA employees to their workplace.

Emissions in metric tonnes CO2-e.

Emissions: 52 143 tons CO2 equivalen

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

for calculating emissions.

Reporting performed at basic entity level:

Indirect GHG emissions linked to transportation dedicated to AREVA employees (For example: La Hague bus service and weekly air links with McClean, Canada); In terms of dedicated transport, this involves requesting that transport service providers communicate their fuel consumption, or average fuel consumption. Reporting performed at Corporate level (group indicator):

Indirect GHG emissions linked to transportation not dedicated to AREVA employees for work assignments. Calculation of emissions concerns only commercial flights taken by AREVA employees.

See attachement for further information on measurement protocole

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

Description of sources:

Reporting on freight transportation started during the 2008 annual campaign. The reliability of reporting will increase over the coming quarters. Indicator 13.5: Indirect greenhouse gas emissions (GHG) linked to the transportation of goods (manufactured or semi-finished products, raw materials, waste, products, equipment, inputs (deliveries) and outputs (dispatches) at an AREVA site, all transportation excluding documents) Calculation method:

The GHG emissions measurement unit used is ton of CO2 equivalent (tCO2e).

To avoid counting GHG emissions linked to transportation between two AREVA sites twice, only the dispatching site is taken into account in the emissions calculation.

The Logistics Business Unit (BUL) is responsible for creating the GHG emission inventory for all transportation, and for providing the AREVA entities, for which they provide transportation, with a detailed assessment of GHG emissions for each Business Unit (BU). The BU is responsible for distributing the GHG emissions results transmitted by the BUL to the basic

entities for their input into internal reporting (STAR).

The Logisitics BU will make the assessment of its indirect GHG emissions concerning transportation outside AREVA available in internal reporting system. In 2008, all nuclear goods or materials (class 7) transportation were reported. The emissions linked to this particular scope = 38 419 tons CO2 equivalent. Concerning goods and materials (non nuclear) (imputs and outputs) the reporting was not considered exhaustive = 51 987 tons CO2 equivalent. In 2009, we decided to report 100% of emissions linked to output transportation. Concerning input transporation. work is in progress with 6 pilot sites which will help to consolidate the methodology.

Emissions in metric tonnes CO2-e.

Emissions : 90 406 tons CO2 equivalent

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

See attachement for further information on measurement protocole

13.3 Use/disposal of company's products and services

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

We do not account for emissions related to the use or disposal of our products and services once they are delivered to our utility customers.

Emissions in metric tonnes CO2-e.

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

13.4 Company supply chain Describe the main sources of emissions These emission are accounted for in 13.2

Emissions in metric tonnes CO2-e.

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

#### 13.5 Other

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

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

Transfers Describe the main sources of emissions

#### None

Transfers Report emissions in metric tonnes of CO<sub>2</sub>-e.

Transfers

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

Non-transfers Describe the main sources of emissions

Non-transfers Report emissions in metric tonnes of CO<sub>2</sub>-e.

Non-transfers

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

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

Further information

http://cdp.cdproject.net/attachedfiles/Responses/53247/10397/AREVA-GHG-Scope-3-Measuring-Protocole.pdf

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

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

We offer the following CO2-free products and technologies to our customers, thus helping them avoid or reduce their own emissions:

A/ nuclear power plants and associated nucler fuel services :

The group is the world leader supplier of the nuclear industry and the only company to cover all industrial activities in this field (except the power generation itself). The comparison between the energy production sectors show that the GHG emissions of nuclear power plants are the lowest varying between 6 and 29 g CO2/kWh depending on the enrichment method and the mix. As a global illustration : in Europe emissions avoided through nuclear generated electricity are approximately equivalent to the total emissions of the European automobile fleet.

B/ Biopower is considered carbon neutral by US Federal and state environmental agencies.

The renewable energy power plants engineered and supplied by the Renewable Energy Business Unit provide significant GHG emissions savings to their owners, when compared to carbon intensive energy sources

As indicative information only, we calculated, using the countries grid carbon factor as baseline, that the plants already installed by our Renewable Energy business unit save more the 3 millions tCO2e per year.

In addition, projects located in developing countries generate CERs under the Clean Development Mechanism (CDM):

Ø On average, 50000 CER/year for a 10 MWe capacity biomass power plants in India

Ø On average, 30000 CER/year for a 10 MWe capacity biomass power plants in Thailand

Ø On average, 30000 CER/year for a 50 MWe capacity biomass power plants in Brazil

#### CDP 2009 (CDP7) Information Request

Project located in developed countries can also generate carbon credits under Joint Implementation (JI) or voluntary schemes. For instance, offshore wind turbines installed in developed countries may generate ERUs under the JI, provided that projects are approved by the host government. However projects are assessed on a case-by-case basis.

In all cases, the methodologies used to calculate the GHG emission savings from renewable energy projects are approved CDM methodologies, available on the UNFCCC website (http://cdm.unfccc.int/index.html)

C/ Wind Power is a CO2 free energy solution,

D/ Transmission and Distribution of electricity

Our Transmission and Distribution (T&D) division also helps its customers improve their grid operations while reducing CO2 emissions, 25% of which come from electricity generation. There are four major areas of improvement:

· Demand-side management (DSM) programs that encourage consumers to modify their level and pattern of electricity usage

Low CO2-emission energy sources

Improved network efficiency

• Reduced emissions from grid equipment

As an example, the Nordic Operations and Information System (NOIS) combines all these areas. NOIS, an energy management system designed by T&D and implemented in Northern Europe, interconnects hydro, wind and solar plants, helping users optimize generation resources. Utilities access production and supply data in real time, then send the right amount of power from the right source to the right customer at the right price.

Another way AREVA tries to help customers cut their CO2 emissions is by boosting transmission efficiency by reducing losses. Most power networks supply alternating current (AC), but AC transmission entails major losses. New AREVA technologies enable efficient trading and transmission via High Voltage Direct Current (HVDC) networks, which immediately reduces losses. HVDC technology is the only way to connect different AC frequencies or voltages together; for example across regional or country boundaries. As such, it is the most efficient way to transmit large quantities of electricity over long distances. As a result, HVDC is in high demand to link AC networks to low-emission power sources, such as offshore wind parks.

When our activities can contribute to climate change, for example the supply and the maintenance of SF6 switchgear, we try to work on eco design to limit the leakages and supply an attractive GHG solution to our customers: AREVA T&D has worked to develop a patented special profile for the gaskets with three seals. High tightness and low leakage rates are achieved thanks to a huge inner sealing surface. This surface is broader than an ordinary O-ring, for instance, therefore the SF6 losses of the flange are minimized. This improvement represents an attractive design for our customers.

Further information

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

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

15.1. Please provide the total global carbon dioxide emissions in metric tonnes CO<sub>2</sub> from biologically sequestered carbon.

Emissions in metric tonnes  $\text{CO}_2$  - Please use whole numbers only

0

#### Further information

At this time, we do not burn biologically sequestered carbon in our own operations.

For the future, we are assessing projects to burn biomass and biofuels and will modify our reporting protocol if those projects are confirmed to be in accordance with the GHG protocol, as the GHG Protocol states that carbon dioxide from the combustion of biologically sequestered carbon must be reported separately from the three scopes.

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

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

#### Please describe the measurement.

We follow our GHG emissions per turnover.

In 2008, the AREVA group's direct greenhouse gas emissions amounted to 771,648 metric tons of CO2 equivalent, a 22.4% drop from 2007. At constant turnover, these emissions dropped 56.7% from 2004 to 2008. Of these emissions, 46% are linked to fossil fuels, 27% to sulfur hexafluoride (SF6) and 22% to nitrous oxide (N2O).

There was a 4% decrease in SF6 emissions in 2008 compared with 2007, at constant turnover.

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

Total GHG Scope 1 + Total GHG Scope 2/ Euros revenue

tCO2 e/ billion euros revenue

16.1.2. The resulting figure. Use a decimal point if necessary. Please use a "." rather than a "," i.e. please write 15.6 rather than 15,6 85.73

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

Please describe the measurement.

We consider that to follow GHG emissions per revenue is also a good GHG measurement reported to our activity. We also follow the total GHG emissions compared to our total energy consumption: this indicator is used to assess average total CO2 emissions per 1 MWh consumed

16.2.1. Give the units e.g. metric tonnes of CO<sub>2</sub>-e per metric tonne of output or for service sector businesses per unit of service provided.

total CO2 emissions per 1 MWh consumed.

16.2.2. The resulting figure.

Use a decimal point if necessary. Please use a "." rather than a "," i.e. please write 15.6 rather than 15,6 0.37

Further information

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

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

Yes

In 2008, the AREVA group's direct greenhouse gas emissions amounted to 771,648 metric tons of CO2 equivalent, a 22.4% drop from 2007. At constant revenue, these emissions dropped 56.7% from 2004 to 2008. Of these emissions, 46% are linked to fossil fuels, 27% to sulfur hexafl uoride (SF6) and 22% to nitrous oxide (N2O).

There was a 4% decrease in SF6 emissions in 2008 compared with 2007, at constant operations.

Our scope 2 indicator decreased of 31% at constant revenue between 2004 and 2008. This is the result of ambitious actions plans implemented since 2004. The largest consumers are implementing action plans based on the findings of preliminary energy efficiency studies, with the goal of stabilizing and ultimately reducing the group's energy consumption.

All of our methodological tools – including the eco-efficiency awareness kit, best practice handbooks, best available technologies, and energy news – are designed for all group employees.

Accounting for a third of the group's total emissions, N2O emissions from the Malvési site have decreased significantly following events impacting the site's operations this year.

An installation on the precipitation facility's ventilation system to decompose N2O into oxygen and nitrogen will enable the elimination of these emissions by September 2009.

The La Hague site, whose boilers were the group's only facilities subject to the national quota allocation plan (PNAQ), saw its GHG emissions drop 37.5% in 2008 compared with 2007, whereas its energy consumption only dropped by 4.5% for comparable operations. This result was achieved principally by replacing the heavy fuel oil boilers with electric ones.

If the answer to 17.1 is Yes:

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

This box will accept numerical answers containing a decimal point. Please use "." not "," i.e. write 10.6, not 10,6. 22.4 %

Have the emissions increased or decreased? Decreased

Further information

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

18.1. Has any of the information reported in response to questions 10 – 15 been externally verified/assured in whole or in part? Yes, it has been externally verified/assured in whole or in part.(Please continue with questions 18.2 to 18.5)

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

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

Scope 1 Q10.1

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

Our reporting is reviewed by our external auditors who have delivered a reasonable assurance report concerning : • our 2008 Direct GHG emissions ( excluding transport) • our energy consumption

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

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

Please attach a copy/copies.

http://cdp.cdproject.net/attachedfiles/Responses/53247/10398/AREVA-External verification report.pdf

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

Since 2003, AREVA is asking a verification of environmental, social and security indicators present in the sustainable development report published by the group.

The work carried out during the intervention aimed to ensure:

- understanding and proper application by the AREVA Environment Department of the procedures for environmental reporting, social and security;

- the validity of the data at level n +1.

The procedure PO\_COG\_ENV\_001 entitled "Organization of data control of SD reporting by environment department" describes the organization of the Environment department for reporting and controls that are made by specialists of the environment specialists. This procedure, introduced in 2006 was updated in 2008 (version of December 1).

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

Further information

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

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

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

Emission data is gathered.

The main sources of uncertainty in our data gathering, handling and calculations are: metering/measurement inaccuracies: for example, when our measures are based on a quarterly concentration measure of concentration and flow and then the annual quantity declared is extrapolated data came, for example, there could be a percible lack of completeness of encipience of references, come sites having difficulties to exact their exclusion encipiences.

data gaps, for example, there could be a possible lack of completeness of emissions of refrigerants, some sites having difficulties to report their coolant emissions

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

Our internal reporting protocol is designed to establish, improve and maintain the accuracy of our GHG inventory. With our reporting protocol, it must be possible for a third party to check all data sources and documents used to measure, calculate and consolidate data (notably, internal and external auditors and statutory auditors). Such documents and evidence (invoices, meter reading, etc&) must be kept and made available during a 3 year period.

The sampling, measurements and analysis methods used must comply with appropriate national and international standards whenever such standards exist. If no such

standards exist, full documentation on the methods used must be archived and available for consultation.

Our specialized correspondents must perform the following general internal audit tasks: Audits must be formalized and filed. The data calculated must be compared with results from the various financial reporting stages. Any significant differences must be explained. Control ratios are established. Calculation checks: each calculation must be checked and the findings written down. Checks must be carried out by a third party (not the person who did the original calculations). The reporting protocol is a reference document for any external data audit. It must therefore be available for consultation by external auditors. Auditors must also have access to archived data. We have also evaluated our uncertainty margins to assess our GHG emissions inventory: Combined uncertainty / method (%) in t CO2- e

N2O CO2 comb. CO2 proc EU ETS CO2 proc. SF6 Others Total 19,0% 2,5% 2,5% 20,0% 20,0% 20,0% 8,5%

19.3. Does your company report GHG emissions under any mandatory or voluntary scheme (other than CDP) that requires an accuracy assessment? No (Please go to question 20.)

19.3.1 Please provide the name of the scheme. EU emissions trading scheme

19.3.2. Please provide the accuracy assessment for GHG emissions reported under that scheme for the last report delivered. The reasonable level of assurance has been given by our external auditors (13/02/2009 by Deloitte)

Further information

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

Please provide the following information for the reporting year:

Cost of purchased energy

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

Select currency

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

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

Energy type	Cost	Currency
Electricity		
Heat		
Steam		
Cooling		

Cost of purchased fuel

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

Select currency

20.2.1. Please breakdown the costs by individual fuel type.

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

Mobile combustion fuels	Cost	Currency

Stationary combustion fuels Cost	Currency
----------------------------------	----------

#### Energy and fuel inputs

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

Purchased energy input

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

Please use whole numbers only.

3021000 MWh

Purchased and self produced fuel input

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

Please use whole numbers only.

14626204 MWh

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

Please state which you have used in calculating your answers.

Net Calorific Values

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

Table 10 - Please use whole numbers only

Stationary combustion fuels	MWh
Natural gas	458277
Propane	110436
Residual fuel oil	283253
Gas/Diesel oil	562151
Motor gasoline / petrol	12086

Energy output

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

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

Please use whole numbers only.

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

Please use whole numbers only.

0 MWh

#### Energy exports

This question is for companies that export energy that is surplus to their requirements. For example, a company may use electricity from a combined heat and power plant but export the heat to another organisation.

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

Please use whole numbers only.

0 %

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

Please use whole numbers only.

0 %

#### Further information

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

In France (66% of the total electricity consumption of the group worldwide), the total cost of electricity (975 145 MWh) is estimated to 42 090 k€.

20.1.1. Please break down the costs by individual energy type. Data not available

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

In France: the cost for heavy and domestic fuel is estimated to 11 678 kEuros the cost for gasoline is estimated to 8 625 kEuros

The cost for diesel fuel for our Mining Business Unit is 22 589 kEuros .

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

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

Fossil fuels Electricity Heat Energy consumption in 2008 47 % 49% 4%

Energy output

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

Data not consolidated in terms of generation

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

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

21.1. Does your company operate or have ownership of facilities covered by the EU Emissions Trading Scheme (EU ETS)? Yes (Please answer the following questions - 21.2 to 21.4)

Please give details of:

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

Table 11 - Please use whole numbers only.

	2008	2009	2010	2011	2012
Free allowances metric tonnes CO2	91978	91978	91978	91978	91978

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

Total allowances purchased through auction

0

21.4. The total CO<sub>2</sub> emissions for 1 January 2008 to 31 December 2008 for facilities which you operate or own. (Even if you do not wholly own facilities, please give the total emissions for this period.)

Total emissions in metric tonnes

53610

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

Electric utilities should read EU6 before answering these questions.

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

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

Our renewable Business Unit has developed an expertise in the carbon market as the technologies offered to its customers are eligible to carbon credits u Biopower

u Biogas

u Waste Heat Recovery (WHR)

u Wind

Areva is engineering and constructing those plants and can also offer a service for carbon project development (CDM development/PDD, approvals/Registration as CDM by UN, CDM data monitoring, issuance of VERs or CERs).

The Renewable Business Unit is well established in countries where carbon credits are generated (i.e. projects in developing countries such as Brazil, India, Thailand, etc.) and also close to the demand side for such credits (headquartered in Europe).

That is why AREVA is today active in the area of the Kyoto mechanisms such as CDM projects.

Moreover, within the scope of its multi-year plan to reduce its own greenhouse gas emissions (target for end 2011 vs. 2004 is 50% of GHG emissions reduction), AREVA has decided to become carbon neutral by offsetting its residual emissions through the purchase of credits originating from greenhouse gas reduction projects outside of the Group. To this end AREVA has contracted with EcoAct, with a view to selecting and supporting environmental projects (renewable energies, energy efficiency) benefiting the local populations in countries where the group has operations. These include providing the Brazilian industry with biomass, fuel switching in plants, etc. The group will continue to offset its emissions in addition to its current reduction program.

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

The first component of our strategy is to pursue our aggressive reduction plan for our own emissions, progressively including all reporting scopes.

In addition we are now involved in a carbon neutrality program and we will continue to offset our emissions on the voluntary market in addition to our current reduction program.

At the same time, our Renewable Energy business unit plans to develop its activity in CDM and VER project development in Brazil, India.

In the coming years, we anticipate that emissions at the group's facility (La Hague) covered by the EU ETS will still be below its allowance and that the plant will seek to sell its excess quotas as CER or EUA on the carbon market.

Further information

#### 22. Carbon credits

22.3. Have you purchased any project-based carbon credits? Yes. (Please answer the following questions)

Please indicate whether the credits are to meet one or more of the following commitments: Primarily for voluntary offsetting of your own emissions

#### Please also:

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

We bought VERs for a total volume of 880 000 tons equivalent CO2 to offset our emissions.

The VER we bought were responding to the standards VCS 2007 and Social Carbon.

Through our partner EcoAct, we purchased those VERs from 6 different projects: biomass in Brasil, hydroelectricity in China and hydroelectricity in India.

The carbon projects the Renewable business unit sold were VER VCS and CER.

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

#### 22.6. Please provide details including:

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

The role of our Renewable business unit is:

- to engineer, procure and construct the power plant;
- and, when relevant,
- to provide a CDM development service (ultimately leading to the generation of either CERs or VERs)
- to provide a VER development service

and/or from 2009 onwards, to purchase from our customers the VERs generated by the power plant if any.

In 2008 the location of projects is India. The technologies involved were biomass power and waste heat recovery.

The standard under which the projects are being developed is: - the CDM

- the CDM

- the VCS

Emission reductions from the projects we are associated with (through our customers) were under validation in 2008.

The aggregated annual volume projected is 80000 tCO2e/year.

VERs generated by the projects and that we purchase will be used for our own offsetting policy in the following years. The VER will be validated and verified under the VCS and will be issued by a VCS registry holder. Then we will request the registry to cancel the VER (VCU – Voluntary Carbon Units) when relevant.

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

No. (Please go to question 23)

22.8. Please provide details of the role performed.

Further information

#### Performance

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

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

Yes. (Please go to question 23.3)

#### 23.2. Please explain why.

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

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

#### Goal setting

23.3. Do you have an emissions and/or energy reduction target(s)? Yes. (Please answer the following questions)

```
23.4 What is the baseline year for the target(s)? 2004
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#### 23.5. What is the emissions and/or energy reduction target(s)?

AREVA has an aggressive GHG emissions reduction plan in place, as well as energy consumption reduction plans, deployed to all units within the Group. We have deployed energy saving programs in all our facilities. AREVA Environment Policy 2007-2011 requests each Business Unit cascades the policy on their facilities (through AREVA Way, integrated management system and within an ALARA approach),makes yearly progress plans to improve their eco-efficiency and allow the Group to achieve at the end of 2011 (from a 2004 baseline) the following objectives, in a constant activity and turnover scope : - energy consumption : - 20%

- direct GHG emissions : - 50%

AREVA Environment Policy also request the major contributing sites in terms of SF6 emissions to reduce their emissions by at least 4% per year.

23.6. What are the sources or activities to which the target(s) applies? The targets (emissions and energy) applies to all our factories.

23.7. Over what period/timescale does the target(s) extend? The current policy with those targets applies until 2011.

Further information

#### 23. GHG emissions and energy reduction activities

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

The major contributing sites in terms of energy consumption must update their improvement action plans every 3 years based on energy diagnosis. The methodological tools (advocacy kit, good practice guides, best available technologies, energy news) are available on the intranet of the group. Comurhex Malvesi site which is the major contributor in terms of N2O (97,7% of the group's emissions) has an action plan in progress to eradicate its emissions of N2O. All energy investments must favor the less CO2 emission intensive solutions (the cost of CO2 emissions is integrated in our business decisions). Concerning uranium enrichment (the enrichment plant is the biggest energy consumer in the AREVA Group) the decision has been taken to replace the present technology (gaseous diffusion) by a technology much less energy intensive (ultracentrifugation). The erection of the new plant using this technology is under progress. The ultracentrifugation process consumes 50 times less energy than the gaseous diffusion one.

We also monitor closely the use of SF6 in our T&D equipment manufacturing plants (SF6 is used in certain equipments because of its safety properties) but also in maintenance and dismantling of customers equipments. We deploy an eco-design approach including improvements concerning SF6 use.

Finally, an internal seminar about the prospective energy usage will be organized in 2009 in collaboration with the Strategy, Purchasing and Environment Corporate Departments. The participants, holders of industrial projects will be able to assess the advantages and disadvantages of available energies.

Further information

#### 23. Goal evaluation

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

We are benchmarking the practises of the other major industrial groups in the fields of Energy and Transport. In 2008, we also studied the practises of the other major groups concerning carbon offsetting.

Every quarter, we analyse our GHG emissions and energy consumption to check that we are on the good track to respect our targets.

At the end of each year, we do a more complete analysis to check that we are compliant with the targets and the way we still have to follow:

- energy consumption : - 20% (at constant turnover)

- direct GHG emissions : - 50% (at constant turnover)

- SF6 emissions reduction by at least 4% per year for the major contributing sites (at constant turnover).

In addition Areva is undertaking different activities to reduce GHG emissions:

1/ energy efficiency programs: the major contributing sites in terms of consumption of energy must update every 3 years their improvement action plans based on energy diagnosis (Environment Policy until 2011)

2/process modifications:

we have eliminated the SF6 emission of our front end facility of Pierrelatte (France) by the recycling of the fluor gaseous emission and the corresponding equipments are in operation since the end of 2006

Please also see our answer to question 23.8

Further information

#### 23. Goal achievement

23.10. What emissions reductions, energy savings and associated cost savings have been achieved to date as a result of the plan and/or the activities described above?

Reduction at constant turnover Energy comsuption Direct GHG emissions 2004 100% 100% 2005 96% 94% 2006 87% 75% 2007 82% 62% 2008 77% 43%

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

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

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

For GHG emissions reductions, the main investments are:

2007: suppression of the SF6 emissions of the factory COMURHEX Pierrelatte

2007: Increasing reliability of COMURHEX Malvesi factory with strong impacts on our N2O emissions

2007-2008: Creation of SF6 networks on several T&D factories to reduce our SF6 leakages:

- Aix les Bains factory

- Villeurbanne factory

- Oberentfelden factory (Switzerland)

- Macon factory

2008: Fuel switching (fuel to electricity) for our combustion units in the AREVA La Hague factory with impact on CO2 emissions

#### For energy savings:

- 2007-2009: New GB2 factory (Tricastin France) : Concerning uranium enrichment (the enrichment plant is the biggest energy consumer in the AREVA Group) the decision has been taken to replace the present technology (gaseous diffusion) by a technology much less energy intensive (ultracentrifugation). The erection of the new plant using this technology is under progress. The ultracentrifugation process consumes 50 times less energy than the gaseous diffusion one.

- 2008: Decrease Energy consumption of our AREVA La Hague factory: Fuel switching (diminution of fuel consumption) for steam production with combustion units - Eco attitude training campaign in the entire group (2005-2008)

- Methodological tools (advocacy kit, good practice guides, best available technologies, energy news) available on the group Intranet.

#### 23. Goal planning & investment

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

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

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

Plan or action	Investment number	Investment currency	Payback

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

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

Our main issue for the next years is that our mining activity will strongly increase with important consequences on our energy consumption and GHG emissions. For example, we consider that:

-our Imouraren (Niger) project will emit more than 200 000 t CO2 e in 2012 and more than 270000 in 2013.

- our Trekkopje (Namibia) project will emit 85000 t CO2 e in 2011

We currently evaluate various technical options that would help stabilize and even reduce our emissions initial forecasts regarding these new projects.

At the same time, we have an ongoing project, which involves a significant industrial investment, for the eradication of N2O emissions in our Comurhex Malvési plant. The commissioning date is September 2009. This factory is the major contributor in terms of N2O (97,7% of the group's emissions) and was representing 22% of our direct GHG emissions in 2008.

Concerning our scope 2 emissions, those emissions are mainly due to our electricity consumption. The main changes in the next 5 years will be:

• Concerning uranium enrichment (the enrichment plant "Eurodif" in the south of France is the biggest energy consumer in the AREVA Group) the decision has been taken to replace the present technology (gaseous diffusion) by a technology much less energy intensive (ultracentrifugation). The erection of the new plant using this technology is under progress. The ultracentrifugation process consumes 50 times less energy (mainly electricity) than the gaseous diffusion one.

• The choice to use electricity for our multi fuel boilers to produce heat on site (instead of heavy fuel) and the thought in progress to replace our boilers with new electric equipments or biomass power stations.

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

t CO2 e

Table 15 - The "Scope" columns will not accept text. Please use whole numbers only.

Type in the name of the territory or region for which you are giving data and then press "Add Territory/Region". If giving a global figure instead of separate figures for regions or territories, please write "global" in the box labelled "Enter name of territory or region".

Click here to see a sample table.

Future reporting years:										
End date for year end DD/MM/YYYY	31/12	/2009	31/12	2/2010	31/12	/2011	31/12	2/2012		
Emission forecasts	Scope 1	Scope 2								
Africa	189154		359222		425218		479122			
Europe	590247		372131		365710		359549			
Asia	58404		58013		57456		56922			
Americas	84840		84873		69278		68562			
Oceania	9100		9100		9100		9100			

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

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

The Mining BU is one of the major contributor of the Group in term of energy consumption and consequently one of the major emitter of greenhouse gases emissions. AREVA expects increase in that consumption due to the new mine projects in Niger and Namibia. New facilities, such as the one planned in the US, will in the future increase the energy demand.

Nevertheless, in order to decrease our GHG emissions, AREVA is studying various options: for instance the feasibility to implement Concentrated Solar Power plants in Niger in order to provide carbon free energy and replace therefore some diesel energy power production.

All new projects are designed with the aim of reducing our environmental impacts.

Our new facility "Georges Besse 2" for uranium enrichment also plays a key role in our energy demand pattern: please see our answers to questions above, describing this project.

Concerning the Chemistry Business Unit, the Comurhex Malvesi plant also has a project to replace its fuel boilers with technologies like biomass power plants which will be less energy intensive and will permit to reduce our GHG emissions.

Table 16 - Please use whole numbers only.

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

Click here to see a sample table.

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

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

For our estimations of GHG, we asked to the different Business Units to give us their estimations in the next years based on:

- their fuel consumption

- their refrigeration fluid consumption

- their GHG emissions due to their process

For our energy estimations, we worked with the Purchasing Department (fuel and electricity future estimations) and we verified that the datas given by the Business unit for the direct GHG emissions were coherent with those fuel estimations.

Further information

24. Planning: (CDP6 Q3(c))

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

We have added in our investment review process a systematic analysis of the GHG emissions consequences (positive or negative) and the internal pay back calculation takes into account a financial valorisation of the GHG emitted or reduced. The current reference value to be taken into account in a new investment is 25 Euros/tonne CO2 from 2008 to 2012 and 40 € per tonne of CO2 for a longer period, such levels being subject to periodic reviews and updates.

Further information

Governance

25. Responsibility: (CDP6 Q4(a))

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

Yes. (Please answer question 25.3 and 25.4)

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

The overall climate change strategy is jointly defined between the relevant Corporate Directors at the Headquarters and approved by the Executive Committee. It is then implemented under the joint supervision of the Safety, Security, Health and Environment Senior VP, the Sustainable Development Senior VP, the CFO, and the Strategy Senior VP, all members of the Executive Committee. The Safety, Security, Health and Environment Department, the Sustainable Development and Continuous Improvement Department are then in charge of coordinating, deploying, and reporting on the Group's Environment Policy.

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

#### See above

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

The Safety, Security, Health and Environment Department and the Sustainable Development and Continuous Improvement Department submit in coordination with each of the Business Units - periodical reports to the Executive Committee. Such reports on GHG emissions and energy consumption form part of the mainstream reporting system of the Group.

Further information

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

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

Yes. (Please go to question 26.2)

#### 26.2. Are those incentives linked to monetary rewards?

Yes, although not yet at full scale ,we provide incentives for individual management of climate change issues including attainment of GHG targets.

Our environmental policy has defined objectives in terms of GHGs emissions reduction. Cascading these targets to the Business Units allows them to set their individual objectives and progress plans on which they have to report periodically. The same applies for targets to reduce our energy consumption.

On certain factories of the group, there are incentives linked to monetary rewards, for example bonus and malus for the workers and management. In the countries where such scheme is not feasible, the management has the responsibility to reach the targets cascaded to the sites.

#### 26.3. Who is entitled to benefit from those incentives?

The workers and the management.

Further information

#### 27. Communications: (CDP6 Q4(c))

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

We publish information about the risks and opportunities presented by climate change, details of our emissions and plans to reduce emissions in our annual report "Reference Document 2008": Appendix 4 Environment Report « Environmental performance improvement ».

We also provide relevant information on this topic in our annual activity and SD report (available at www.areva.com).

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

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

Yes

http://cdp.cdproject.net/attachedfiles/Responses/53247/10413/AREVA-Reference-doc-Annexe5.pdf

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

Yes

In addition to distributing our Activity Report, we engage on a regular basis in open discussions with external stakeholders.

As a member of the UN Global Compact we are also engaged in their "Caring for Climate" initiative, which represents an additional forum for dialogue on these topics.

Further information

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

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

Yes

Yes, we are in contact with policymakers dealing with possible responses to climate change including taxation, regulation and carbon trading

#### If so, please provide details.

AREVA participates in various forums, at the national, regional, or international levels, where climate change issues and the potential responses are discussed. In particular, AREVA is a member – both at national and international levels - of several Business and Industry or multistakeholder associations and organizations (for example the WBCSD, the UN Global Compact, the ICC, the WEC, the WNA) having an interest in engaging dialogue with policymakers and other actors of society on the issue of energy and climate change.

Further information

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