



# On the way to a water stewardship

# CEO WATER MANDATE Communication on Progress 2015

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### Innovative approaches to sustainable water use: Managing ENGIE's water footprint responsibly.

In the context of an increasingly water stressed world, the interrelated dynamic between the security of supply of water, food and energy is becoming increasingly important. This nexus, which is being challenged by climate change is the key to the resilience of livelihood and ecosystems across the globe.

Within these three elements, access to water and sanitation remains a major priority worldwide. It is therefore crucial that as a global industrial company,

we contribute through our own activities in the energy sector.

Against a backdrop of heightened social, political and regulatory pressures, ENGIE aims to put forward long term solutions to the challenges faced. Principally active in the field of energy supply the Group strives to maintain a balanced ecological impact throughout its businesses, promoting sustainability from the level of Group operations all the way to the activities of its customers. For instance: specific action plans are being implemented in high water stressed areas where the Group is present; we are enhancing our coordination with companies along the supply chain, which includes their integration into our water footprint analysis; and awareness is raised amongst our employees through conferences and observation of the United Nations World Water Day.

Our investment in research and innovation supports the development of new technologies and provides both tailor-made solutions for improving sustainable water management as well as a better overall understanding of the water footprint made by our activities. In the process of reaching such innovative and adapted solutions, stakeholder dialogue is considered pivotal. In terms of communication on our operations, we are keen to be as transparent as possible, as illustrated by our participation at the World Water Week conference held in Stockholm each year, where we showcased our research and methodology on water footprint analysis at the international level, and water valuation perspectives.

As a signatory to the United Nations Global Compact (UNGC), which seeks to promote responsible corporate citizenship and being one of the pioneering companies that supported the UNGC CEO Water Mandate initiative from the outset, ENGIE promotes the conservation and preservation of natural resources as key priorities in its day-to-day management. By signing the CEO Water Mandate, ENGIE would like to confirm that monitoring ecological footprints including water sustainability and stewardship, is a corporate priority, and that the Group supports the implementation of human rights principles related to water and sanitation as recognized 2011. In line with this position, the Group's *Rassembleurs d'Energies* Initiative works to improve sustainable access to energy for vulnerable populations.

As CEO of ENGIE, I am very pleased to renew the Group's commitment to the CEO Water Mandate. As the largest private utility in the world, we are determined to minimize risk and further enhance the efficiency of water use in all of our operations, through the application of innovative technologies, continually improving our methods and raising awareness among our stakeholders at every level.

> Gérard Mestrallet Chairman and CEO 30 October, 2015

ENGIE develops its businesses (power, natural gas, energy services) around a model based on responsible growth to take up today's major energy and environmental challenges: meeting energy needs, ensuring the security of supply, fighting against climate change and maximizing the use of resources.

The Group provides highly efficient and innovative solutions to individuals, cities and businesses by relying on diversified gas-supply sources, flexible and low-emission power generation as well as unique expertise in four key sectors: independent power production, liquefied natural gas, renewable energy and energy efficiency services.

ENGIE employs 152,900 people worldwide and achieved revenues of €74.7 billion in 2014. The Group is listed on the Paris and Brussels stock exchanges and is represented in the main international indices: CAC 40, BEL 20, DJ Euro Stoxx 50, Euronext 100, FTSE Eurotop 100, MSCI Europe and Euronext Vigeo (World 120, Eurozone 120, Europe 120 and France 20).

#### Key figures at June 30, 2015

- 58,200 employees in power and natural gas, and 94,700 in energy services.
- Operations in 70 countries.
- €6-7 billion of net investment per year over 2014-2016.
- 900 researchers and experts at 11 R&D centers.



To know more: <u>http://www.engie.com/en/</u>

Energy and water are indispensable to the economic and social development of over seven billion human beings. Because these activities are strategic for humanity, ENGIE aims to become a major benchmark in sustainable development, and water stewardship.

The lines of business of ENGIE are dealing directly with the major issues of integrated water resources management. In this context of heightened social, political and regulatory pressures, the Group provides solutions for the long term: ENGIE has chosen to include water as a key factor in each of its operating processes in order to maintain a balanced ecological footprint, to promote sustainable installations for its own industrial plants and for its clients and encourage research and innovation for new technologies.

The ENGIE Group intends to satisfy in full its social and environmental responsibilities in every country where it does business. This commitment takes on particular importance in the current economic and financial crisis.

#### **2.1.** Water is part of ENGIE's sustainable development strategy.

Regarding its activities, ENGIE is involved in most of the nexus between waterenergy-climate change-food.



Hence water is a part of the ENGIE sustainable development strategy. (http://www.engie.com/analystes-rse/actions/axe-2-agir-maniere-responsable/protectionenvironnement/)

The ENGIE Sustainable Development policy is mainstreamed throughout the entire Group (<u>http://www.engie.com/en/analysts/policy/</u>). It is put into actions across all of ENGIE's business lines and business units. Each entity designs and implements an action plan based on the three policy orientations established by the Group. These

lines are adjusted to fit the specific situations of each business. Every year we evaluate the implementation of the action plan and how much progress each business entity has made.

#### 2.2. Energy: a global leader in independent power generation.

ENGIE has a presence across the whole energy value chain and manages environmental impacts of those activities.



Focusing on water impact, ENGIE consumes or uses water for:

- Cooling (thermal power plants) or heating (LNG terminals) systems
- Hydropower plants
- Demineralization
- Flues gas treatment
- Industrial uses
- Gas exploration and storage
- District heating
- Etc...

In 2014, the water consumption of ENGIE was 13.8  $\text{Mm}^3$  for industrial uses and 127.7  $\text{Mm}^3$  for cooling and heating.

Actions plans are implemented locally to decrease the water consumption and reduce the impacts on ecosystems. The reuse and recycling of the water is also one

of the solutions considered by the plants. Those action plans are included in the climate change adaptation strategy.

According to the Enterprise Risk Management policy of ENGIE, environmental risks are assessed at all levels of the Group. At corporate level, as an element included in the map of environmental risks, we analyze water-related risks. In 2013-2014, we supplemented the results of the Global Water Tool for all the energy sites by using the Aqueduct tool (World Resource Institute). Regarding the results concerning the probability of the Group being present in a watershed stressed area, we started to develop local risk analysis and deploy action plans where it is necessary.

At the beginning of 2014, ENGIE has defined rules and commitments about water management inside the Group:

#### Water risk \*

GDF SUEZ identifies the sites facing a water risk and elaborates action plans after a local confirmation of the risk to minimize the dependency on fresh water. One of its priorities is to reduce the impact on the resources.

#### Water footprint

Water is strongly linked with the energy process for E&P, LNG, gas storage, power plants, hydropower, and other industrial processes.

GDF SUEZ is assessing the water footprint of its activities.

#### Transparency

GDF SUEZ publishes regularly indicators and qualitative information about water use and contributes also to stakeholders enquiries as CDP water or RobecoSAM.

\*A site is facing a water risk when its activity depends on fresh water in a water-stressed area based on the baseline water stress indicator. (*WRI data-Aqueduct*)

#### Compliance

Worldwide, GDF SUEZ ensures that the use of water is in compliance with local regulation from withdrawal to discharge.

#### **Objectives / targets**

For 2020, 100% of sites facing a water risk will have defined an action plan. Each Business Unit is engaged to minimize effects on fresh water resource and impacts of the discharges.

#### Supply chain

GDF SUEZ aims to encourage suppliers in conducting assessments of water use and impacts.

#### Public engagement

GDF SUEZ is involved in multiple initiatives at international or local level in order to improve water governance.

As often as necessary, the sites are involved in local water management plans in relation with all stakeholders.

#### Examples of best practices:

#### Peru – Eco-efficient use of water to increase energy generation

Conversion and modernization of Chilca UNO power plant to a combinedcycle operation, for the eco-efficient use of water and greater power generation.

The project is including a desalinization plant to source water, reducing the exploitation of wells and avoiding use the scarce underground water. In addition, Chilca UNO is implementing a program to promote efficient water use by using aerocondensors instead of water for the cooling process. This will reduce the amount of water required from 80,000 m3/day to 1,500 m3/day.





#### Worldwide – Natural gas extraction and water production

Water is usually extracted with oil and gas wherever it is produced on-shore or off-shore. This water contains oil from the ground and can't be discharged as such in the environment.

Hence for the quality of water discharged, ENGIE is applying the European limit value (30 mg of oil per liter) for all the sites all around the World. There is an additional internal target of 20 mg/L of oil.

#### France – CPCU (Compagnie Parisienne de Chauffage Urbain): implementation of a global program to improve the return of condensate to the heat production plants

The goal is to reduce water losses in the network and thus reduce the volume of surface water collected and the associated discharges. A global program was implemented including maintenance of the condensate return system and optimization of water uses. In addition, production facilities of makeup water for boilers were modernized. Nearly 50% of the makeup water comes from production lines of demineralization by ion exchange and 25% from reverse osmosis water units, thereby limiting the release of suspended solids and reduction of at least 8% of boilers blowdown.



#### 2.4. Water reuse and synergies

Synergies between the energy sector and the supply chain have been developed during the last years. Most of the time the objective is to reduce the impact of activities on fresh water resources.



#### Brine reuse - Storengy

In some places, natural gas is stored in saline cavities. The process consists in extracting brine from the cavities and injecting the gas in its place. Storengy signed a convention with a chemical industry to sell them this brine instead of losing it or sending it back, after treatment. Thus 70% of the water withdrawal of

Storengy in France is transformed in brine and reused by industry.



# Chile – Water reuse from the power plant to a mine

Currently a portion of the cooling water of Mejillones Conventional is sold to a copper and molybdenum mining company in the Region of Antofagasta, decreasing the water discharged to the sea and preventing further removal of seawater elsewhere in the Bay of Mejillones. The water is sent through an

aqueduct 140 km long, from Mejillones to the mining site. Meetings were held with local authorities to promote the use of sea water used by the cooling system of the generation units.



# SPEM, Montoir-de-Bretagne: Performance in sustainable development

The implementation of the project SPEM of ENGIE, the first combined cycle power plant in western France, is fully consistent with a sustainable development approach. Indeed, this plant helps to strengthen the grid through its technological and environmental performance for the region "Pays de la

Loire". Proximity to the LNG terminal will reduce the environmental impact: water heated by the power plant may be used by the LNG terminal to regasify Liquefied Natural Gas, which keeps out water without impacting the ecosystem.

Looking at the array of activities of the Group and the important role played in the nexus water-food-energy-climate, we aim to develop synergies to optimize water use and energy consumption.

#### 3.1. Supply chain management

As a global industrial company, ENGIE is convinced that companies can have a direct impact on water management in their own businesses, as well as an indirect impact.

ENGIE has built a strong purchasing policy including a sustainable development approach in order to respect the UN Global compact 10 principles.

Human rights are part of this principle and are incorporated into the Group's formal commitments: the CSR agreement for Gaz de France, signed in July 2008 with all European social partners, and the International Social Charter for SUEZ. These two documents explicitly refer to human rights and the International Labor Organization conventions. The agreements are currently under renegotiation with the social partners to establish a benchmark text on these matters for the new group. In the meantime, the previous two versions remain in effect. The actions to be taken cover:

- Purchasing practices
- Nondiscrimination
- The right to organize and the right to negotiate
- Prohibition of child labor
- Prohibition of forced or compulsory labor
- Safety practices
- Rights of local populations.

ENGIE incorporates its environmental and social concerns in its purchasing procedures. For that reason, its contracting specifications include criteria for selecting suppliers and products as a function of its social and environmental commitments.

Purchasing officers at ENGIE make sure their suppliers follow practices that comply with international standards, such as the "OECD Guidelines for Multinational Enterprises" or the "Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy" of the International Labor Organization – as well as SA 8000 and ISO 14000.

Specifically, the purchasing officer must make sure that suppliers comply with certain simple principles: products and services must meet the needs stated in our specifications; the supplier must comply with regulations on safety, worker well-being and child protection, and must commit not to discriminate in any form within its company or against subcontractors, and not to engage in any act of corruption; it must respect the environment in designing, making, using and destroying or recycling products.

#### **Code of Conduct for Supplier Relationships**



As part of the Group's values and its commitments to sustainable development, the Group hopes to include its suppliers in the same approach. In 2008 it developed a Code of Conduct for Supplier Relationships, asking suppliers to respect the charters and principles of the Global Compact on human rights, labor rights, preserving the environment, and ethics. This code is incorporated into all supplier contracts.

#### Sustainable purchases

The sustainable purchasing policy comes within the scope of the Group's sustainable development policy, its values and its various charters. Its aim is to be reflected in the everyday activity of buyers, particularly in forming and maintaining healthy relationships with suppliers. To raise awareness among buyers on sustainable purchasing and to provide them with the tools they need on a daily basis, a training campaign for sustainable purchasing was launched in France in 2011. Other sessions will be organized in 2012. The long-term aim is to train all buyers.

In order to go further with its sustainable approach, the Group signed the Credit Mediation Charter in 2010. The charter commits the Group to setting up sustainable partnerships with SMEs. In late 2011, ENGIE launched a Global Compact membership campaign based on its 100 biggest suppliers (in terms of sales, excluding energy purchases). Of the 51 suppliers who had not already signed on to the Compact, it was agreed with the business lines to approach 24 (some were at the end of their contracts or in dispute). To date, four new suppliers have joined the Global Compact. To increase their knowledge of our sustainable purchasing policy, a dedicated portal for suppliers was created in 2011.

http://www.gdfsuez.com/en/commitments/responsible-purchasing/procurementsupply-policy/

#### Suppliers' assessment

**ENGIE has adopted the** <u>ACESIA</u> system, a platform for rating the Corporate Social Responsibility performance of its suppliers. Developed by AFNOR Solutions Achats, the tool evaluates supplier performance based on 25 environmental indicators and 13 social indicators. The data is notably used to monitor supplier compliance with regulations and to meet the Group's responsibility to remain vigilant concerning social issues, notably in terms of illegal labor, waste management and transport. In addition to promoting best practices, ACESIA also encourages innovation by inviting suppliers to apply targeted action plans generated automatically by the tool based on the data entered.

#### Sustainable marketing

ENGIE's industrial customers face the same imperatives of environmental, social and economic excellence that their suppliers have to take into account and try to integrate into their products and services. Many of the Group's subsidiaries now offer innovative solutions to reduce environmental footprints, cut greenhouse-gas emissions, protect the health of employees and ensure industrial safety. To promote internal debate over the sustainable products and services offered to industrial customers and local authorities, the Group facilitates synergies between its businesses to respond in a comprehensive way with the full range of its expertise, and more specifically to customer needs in terms of sustainable development. This action, launched in France and Belgium, has been rolled out to the Group's other European markets and to North America, and will soon be offered to all the Group's businesses in the B-to-B markets.

Sustainable products and services for residential and tertiary sector customers have also been developed and are offered by the Group's subsidiaries; energy efficiency and conservation of resources are key to the commercial offerings of suppliers of energy, energy services, water and waste treatment at ENGIE.

#### **Bettercoal initiative**



ENGIE is a member of the Bettercoal initiative, which is a global notfor-profit membership-based organization set up to advance continuous improvement of corporate social responsibility, including social, environmental, and ethical practices, in the coal supply chain.1 The vision of Bettercoal is a coal supply chain that protects the environment, respects the rights of the people, and contributes to the livelihoods of workers and communities. It takes into account water issues such as water efficiency, sustainability of the resources, etc.

http://bettercoal.org/code

#### 3.2. Watershed stewardship

#### Sensitive and local actor, ENGIE is involved in the watershed management.

In 2008, during the 16<sup>th</sup> sustainable development commission, the United Nations confirmed the interest of water management by watershed. Today managing water by watershed seems to be an obvious and clearly necessary activity. We can't manage water without taking into account the other uses upstream and downstream of the river.

As a local actor and water consumer, ENGIE is involved in the IWRM (Integrated Water Resource Management) and we support and integrate regional plans. Local action plans are based on the Alliance for Water Stewardship approach with both operational and watershed actions.

## 3. Supply chain and watershed management



Plan of hydraulic and ecological restoration of the Rhône: the CNR, a committed player

From 2004 to 2013, the Compagnie Nationale du Rhône (CNR), which is the second electricity producer in France with 100% of renewable energy (hydropower), has implemented a "Missions of general interest" action plan.

# Tractebel Energia has launched a "Good Water" program in the region surrounding its Salto Santiago hydroelectric plant in Brazil.

By working closely with local partners, Tractebel Energia has launched a "Good Water" program in the region surrounding its Salto Santiago hydroelectric plant. The objective is to develop a conservation program that preserves 300 water springs located on rural properties upstream of the hydroelectric dam. The purpose of the program is to protect the abundance and quality of local water resources, to generate and share environmental knowledge with stakeholders and to contribute to the development of rural housing.





#### Kwinana, Australia – Change of water source

The serious droughts that have occurred in recent years in Australia and the increase in demand for drinking water have led local companies to promote alternatives to the use of fresh water. Accordingly, International Power's Kwinana cogeneration plant (capacity of 122 MW electric and 287 GJ of steam per day), located near Perth, has modified its process so that it can substitute 80% of its drinking water with recycled industrial process water. Reusing treated industrial water has cut demand for drinking water resources. Companies in the industrial zone have since followed the Kwinana plant's example, further reducing the demand for fresh water. The activity of ENGIE, as a provider of public utility services to local governments and companies around the world, lies at the heart of sustainable development challenges:

- Ensuring that populations have access to basic essential services such as energy;
- Water stewardship
- Adaptation to climate change
- > Depletion of natural resources and the need to promote circular economy
- Security of water supplies

To ensure these activities, collective actions are needed.

#### 4.1. Working with actors at National, Regional and Local levels

In order to provide permanence and to ensure transparence and proximity with the territories' representatives, the Group develops strong and close relations with all socio-economical actors. Some employees of the Group are dedicated to these missions (meetings, partnerships...)

The critical impact of Community legislation on its activity, especially energy and water policies, requires ENGIE to monitor it closely and maintain a sustained presence in EU institutions. For every European initiative that concerns the Group, a strategy of influence is defined in order to share and communicate the Group's position on these subjects. This lobbying activity may be conducted directly with the institutions or via professional organizations. The complete transparency of this activity is proven by the ENGIE Group's registration and recognition in the Transparency Register of community institutions\* which covers all the activities conducted to directly or indirectly influence the development or implementation of policies and the decision-making processes of the EU's institutions. In particular, the register includes the following information: a list of associations, federations, and confederations of which the Group is a member, the estimated cost of its lobbying activities, the amount and source of finance received from EU institutions, etc.

At national level, ENGIE actively participates in the work of several organizations such as "Entreprises pour l'environnement (EpE)", and has built partnerships with environmental NGOs and other organizations. For example, within the EpE association, the Group led a study on water footprint measurement, named "Mesurer et piloter l'eau" and published in April 2015. The Group also contributed to the study "L'entreprise et l'eau : vers une gestion responsable" (Company and water: toward a responsible management) made by Deloitte and EpE.

In 2012, ENGIE was engaged in the 6<sup>th</sup> World Water Forum in Marseille, especially in the "harmonized water and energy" thematic. The Group has promoted solutions on the platform of solutions and participated in multiple working groups and sessions. We maintain this involvement for the preparation of the next forum in 2015.

#### 4.2. Encourage R&D and Innovation

ENGIE encourages the development and use of new technologies including water efficiency, desalination, and ecological footprint. In 2015, the Group devoted 190 million Euros into R&D programs conducted. Investment in research and innovation is a central theme of ENGIE's development and a major asset to prepare for the future. Over 900 researchers, driven by a passion for innovation, contribute to technological excellence in all the Group's businesses.

The ENGIE Research and Technology Division responds to requests by the Business Lines for research in pursuit of operational excellence and categorizes prospective corporate research programs into three strategic priorities: zero-carbon energy production, smart management of energy and the environment, and future gas chains. The programs concerning future technologies are:

- The city and building of tomorrow,
- Smart energy and environment,
- Renewable energies,
- CO<sub>2</sub> capture and storage (CCS),
- Offshore LNG,
- Future gas chains.

The three primary operating activities are research and development, technical assistance, knowledge management.

ENGIE owns research centers all over the world:

#### An international network of Labs fully devoted to R&D and services in energy technologies



Water footprint analysis is part of the Group's research activities. In 2012-2013, the Group has included the water footprint in the Life Cycle Analysis (LCA) of electricity. In the coming years, it would also be integrated in the natural gas chain LCA.

## 4. Collective action

#### 4.3. Working with international organizations

The Group has been involved in many projects related to sustainable water use and management at international level.

#### **Global compact and CEO Water Mandate**

ENGIE is actively involved in the French Network of the UN Global Compact's Country Networks. Lately, Gérard Mestrallet, Chairman and CEO of ENGIE has been president of the French network. In less than 10 years, the Global Compact has become a platform for the exchange of views and information among the United Nations, business, trade unions, and society at large – a place for promoting and sharing values and best practices for responsible management. This year the Global Compact has more than 6,000 members all over the world, nearly 600 of them in France, embracing a gamut of large, small and medium-size businesses and other organizations.

ENGIE has been engaged in the CEO Water Mandate since 2007, year of its creation.

#### WBSCD

ENGIE supports the work of several existing water initiatives involving the private sector.

The WBCSD is a proactive actor on this issue. In 2011, ENGIE became a member of the water leadership group. They work on 6 axes:

- Water, energy, food, climate change linkages
- Natural water infrastructure
- Water stewardship, and the development and implementation of the Global Water Tool
- WASH (Water Access, Sanitation and Hygiene)
- Industrial water reuse
- Water efficiency in agriculture and forestry

#### OECD

ENGIE takes part of the work done by the OECD on the water governance initiative. We are a specifically involved in the Stakeholder Engagement for Effective Water Governance working group.

The objective is to provide a report which assesses the main trends, drivers, obstacles, mechanisms, impacts, costs and benefits of stakeholder engagement and provides pragmatic policy guidance to decision-makers and practitioners in the form of a set of principles, a checklist for public action and tentative indicators.

#### W4EF – Water for energy framework

ENGIE has been part of this group since it was launched, as a member of the steering committee, but also in the international technical committee.

The main objective of this Action Group is to produce an adapted framework for energy companies in order to assess their water use and water impacts. It's supported by the World Energy Council and the World Water Council.

## **5. Public policy**

ENGIE conducts its activities whilst maintaining close relations with public services. By working with public authorities and sharing its ground experience, the Group believes it could help shape public policies. We consider this kind of involvement to be part of our responsibility.

For instance, the Group was in contact with members of the French parliament before the vote of the law "Grenelle de l'Environnement", in order to pass an amendment, the purpose being to uphold the incentive for sustainable management of the hydraulic dams by operators.

#### **Constructive partnerships to reach the Millennium Development Goals**

For the Group, sustainable development is critical in helping regions achieve socioeconomic development and helping our company achieve sustainable growth. A company like ours must confront many environmental, ethical, corporate and societal issues, which is why the Group was one of the first companies to launch projects aimed at meeting the Millennium Development Goals. The Group is a partner of many organizations working toward universal education and other social causes. It is present in the field to offer concrete solutions that create a sustainable environment for its customers and, everyday, it takes many initiatives to support small business and local economies.

<u>Example Goal 7</u>: ENGIE is to ensure a sustainable environment for its customers. ENGIE intends to fully ensure its social responsibility for environmental sustainability in all countries where it operates. This commitment takes on particular importance in the context of the current financial and economic crisis.

As part of this millennium goal, it is important to note that the creation and maintenance of a sustainable environment is at the heart of the Group's activities. Controlling the impact of its activities on the environment is one of its major goals of the Group. Environmental performance is one of its management tools. The group supports public and private actors to protect natural resources and integrate the principles of sustainable development into country policies and programs.

• With regard to access to water, the Millennium Development Goals aim to "reduce by half the percentage of the population that does not have sustainable access to safe drinking water and sanitation.

The Group indirectly contributes to the achievement of this target mainly via its participation in the company SUEZ ENVIRONMENT. For twelve years, SUEZ ENVIRONMENT has been operating in countries that meet this challenge; his role has always been to help them. Over the last twelve years of international development period of SUEZ ENVIRONMENT, the company has made in partnership with public authorities, drinking water available to nearly 10 million people in developing countries, including 8 million and 1.8 million individual access to communal water points, also 4.5 million people were connected to a sewerage system.

• With regard to the protection of biodiversity, the Group has implemented several projects.

As a stakeholder of the Grenelle de l'Environnement, the Group is committed to developing action plans for all priority sites by the end of 2015 in Europe.

### **5. Public policy**

 Another focus of this millennium goal is to improve by 2020 the lives of at least 100 million slum dwellers. Of these trades, ENGIE has implemented several programs to improve the living conditions of slum dwellers by allowing them to have access to water, improved sanitation and energy. For example, "Rassembleurs d'énergies" initiative is providing technical and/or financial support for projects that promote access to sustainable energy for disadvantaged populations throughout the world.

## Monitoring and protecting sensitive sites, LOCAMAPS: mapping Natura 2000 areas and water flows

The Group has agreed to establish action plans at all priority sites in Europe by 2015. For this purpose, actions will be associated with setting up tools and operations to raise awareness among those who use the land. For example, the Group has a mapping tool that will make it possible to determine the vulnerability of sites relative to zones designated as sensitive or protected, like Natura 2000, the regional natural parks, and WWF eco-regions. This tool, LOCAMAPS, yields a list of ENGIE sites that might adversely affect the environment. These sites are audited by experts, and action plans are proposed. Environmental impact studies for potential new activities are conducted in partnership with major international NGOs (ProNatura), consulting firms (Véritas) and scientific institutions (Museums of Natural History in Paris and Brussels). The Group closely studies the opportunities that the land it uses may offer, especially in the Île-de-France region, for transformation into ecological corridors (study by GRTgaz) or into preferential habitat zones for certain species (study by Storengy). GRTgaz incorporates biodiversity protection into its procedures for siting new buildings and maintaining easement strips.

#### 6.1. Encourage dialogue with multi-stakeholders

ENGIE encourages multi-stakeholders dialogue in order to continuously improve its sustainable development approach.

ENGIE measures its success by how well it is anchored within its territories and how well it implements community actions with all stakeholders.

ENGIE encourages dialogue with its stakeholders (customers and populations served, employees, neighbors of installations, economic players, elected officials, opinion makers, suppliers, etc.), at all levels of the Group – in the field, within its operating entities, in its business lines, and globally. A community of practice on societal acceptability has been established to exchange best practices and methods internally.

For ENGIE, the multi stakeholders' collaboration is necessary to develop sustainable projects and ensure societal acceptability. ENGIE talks to its stakeholders at all levels in the Group. For example, multi stakeholders' dialogue sessions were organized in recent years at ENGIE and at Electrabel. In addition, the Group supports the OECD Stakeholder Engagement for effective water governance through its presence on the steering committee of the initiative.

#### The International Social Observatory

ENGIE has continued to encourage exchanges with all stakeholders through the International Social Observatory (OSI). This association continues to develop its activities over the world, especially in Europe, Morocco, China, Ivory Coast, Brazil and Chile. In October 2015, in Shenzen, the OSI organized a Sino-European Forum for the development of the CSR. Three panel debated in front of 300 participants about supply chain, struggle against pollution, extra financial criteria for investments and CSR integration in university programs. In partnership with the ILO office in Santiago, the OSI organized a seminar about great investments contribution in regional development. In Europe, the OSI is an important player about well being in work, human capital policies and digital impact on managerial practices, by organizing different public meetings on these themes. In these different places, the association is developing many partnerships with companies, universities, trade unions and social experts, which are participating and contributing in its programs.

#### ENGIE Scientific Council – a unique advisory body

The Scientific Council is conducted by its chairman and the ENGIE Research and Technology Division. Membership is offered to high level personalities, who are external to the Group with recognized scientific skills. It acts as a debating and advisory body for the Group's General Management, providing advice and external insights regarding all the topics in its field of expertise that could have impact on the ENGIE Group. Via the personal network of its members, it grants access to the most appropriate national, European and international knowledge. The Council has two ways to act: either on request of the General Management, or on its own initiative depending on the knowledge it has gained on the Group.

The members of the ENGIE Scientific Council therefore:

- provide their personal vision on societal expectations, on technological developments, and on economic and socio-political trends;

 reply to queries in order to explore and analyze the topics or trends that may have an effect on the Group's activities in the future;

- share their analysis on recent events, on the evolution of local situations, on the perceptions and opinions they have gathered in their field of work;

- issue advice regarding the outlook and policies of the Group, based on their own personal expertise.

#### 6.2. ENGIE acting as a societal responsible company

As an international Group, ENGIE is a societal responsible company in all the countries where it operates. This commitment takes different forms and is adapted to local socio-economic contexts to be as concrete and effective as possible. As a participant in long-term activities that provide essential services to populations (energy, water and waste services), ENGIE is a major player in local sustainable development. It is involved in many diverse areas:

• the establishment of new infrastructure (renewable energy and natural gas for instance)

- conservation of the environment
- jobs creation
- support for development of local economies
- support for community groups and general interest participants
- improvement of living conditions through access to services
- solidarity through aid to low-income households

The Group has thus developed many actions, including several that are societal innovation. Its societal commitment is also displayed in its response to calls for tenders. This approach is now mobilizing significant resources in terms of societal engineering, both centrally and *vis-à-vis* the Group's operational entities.



#### "Rassembleurs d'énergies" initiative

With "ENGIE Rassembleurs d'énergies," ENGIE intends to significantly strengthen its commitment to promoting energy access for the poorest populations and reducing energy poverty in France and around the world. To improve both "technical" and

"financial" access to energy, ENGIE-Rassembleurs d'Energies uses 3 complementary approaches: investment via a social investment fund; donations via the "Solidarity through Energy" branch of the ENGIE Foundation, which was launched on 28 September 2010 for micro-projects enabling energy access; and finally skills sponsorships that put employees' technical knowledge and expertise to work supporting the projects of social entrepreneurs, NGOs and associations. In 2015, 7 new investments were achieved by the ENGIE Corporate impact investment funds including 2 in small scale biogas solutions, 23 projects were supported by the

ENGIE and more than ten technical assistance missions were carried out by Foundation or Codegaz Energy assistance. The objective of the initiative is to continue to support projects internationally.

http://www.engie.com/en/commitments/providing-sustainable-energy-access-for-

#### ENGIE Internal monitoring of water and energy insecurity

In December 2009, the Group established an in-house observatory on energy and and energy insecurity and take action in every country where ENGIE is present. The Group's practices in countries where it has retail customers and more effectively precariousness was created in Belgium Electrabel initiative, in collaboration with researchers from the Universities of Antwerp and Brussels.

#### 6.3. Employees engagement:

http://www.gdfsuez.com/en/commitments/solidarity/involvement-employees/

Supplying drinking water or energy to the most disadvantaged populations on earth is the mission of Energy Assistance and Codegaz, the two humanitarian associations formed by ENGIE employees.

Energy Assistance. Created in 2001, Energy Assistance has more than 600 members and donors. It has conducted more than 120 projects since it Energy orphanages, schools, villages and social tourism centers located in isolated areas where poor populations live on the margins of the economy. http://www.energy-assistance.org/en



CODEGAZ is a non-profit association formed by ENGIE employees in projects in 16 different countries. It applies an integrated development policy by helping vulnerable populations in the areas of food, water, health, http://www.codegaz.org/

#### 6.4. Partnerships with universities and schools

#### HEC "Business Sustainability" Chair:

ENGIE has partnered with HEC business school in Paris and its Business & Sustainability Chair, which aims to promote a better understanding of the connection between corporate performance and sustainability. It focuses on three major themes: the development of business models based on sustainability, the organizational conditions required for transforming volume strategies into value strategies, and different methods for supporting and replicating social business initiatives.

The mission of the Business & Sustainability Chair is to develop knowledge of innovative and effective business models and to enhance training in these areas for students at HEC Paris. The Chair gives ENGIE the opportunity to highlight its commitment and leadership in sustainability, while also facilitating relations between HEC Paris students and the Group.

#### IFP School

For the last 20 years, ENGIE has worked alongside IFP School in a partnership that enables trainees to discover different energy sectors. The program prepares the students for the IFP School qualification through a work-study program with ENGIE in order to:

- Help them gain a qualification of recognized value in France and abroad
- Give them professional experience in the world's leading utilities Group, as well as the opportunity to find full-time employment with the Group
- Build their own professional network in the industry where they want to build a career



Throughout the program, students alternate periods of study at IFP School with periods of work experience at ENGIE. The program structure delivers high-quality technical training and economics education in parallel with the opportunity to put theory into practice in the corporate world by studying real business cases, working alongside

industry professionals, learning working methods, and many other practical benefits.

#### 6.5. Partnerships with associations



#### Foundation for Action against Exclusion

The Group collaborates with the French <u>Foundation for Action against</u> <u>Exclusion</u> (FACE), which is chaired by Gérard Mestrallet and involves Group employees within its 35 local FACE structures in France and

abroad. The Belgian structure, Be.Face, was launched in Brussels in January 2011, and the Rio de Janeiro (Brazil) branch opened in 2012 during the United Nations Rio+20 Earth Summit. FACE is a recognized non-profit association that was founded on February 20, 1994 to combat all forms of exclusion, discrimination and poverty. Its efforts focus on employment, education, energy consumption, health, housing, digital technology and citizenship by developing and testing local efforts for balanced regional development that benefits local residents. It promotes social commitments that strengthen the economic fiber of regional communities by encouraging and actively supporting the initiatives of companies. Through its network of local associations, known as the FACE Clubs, it now works with 4,000 companies, including major groups and small and medium-sized businesses. With greater participation every year, the growing commitment of various companies to FACE illustrates the values of collective action that are now shared by all.

#### Foundation for Promoting Employment

The Group also works to promote employment through <u>Foundation for Promoting</u> <u>Employment</u> (FAPE ENGIE) and its partners (companies and trade unions). It supports the professional integration and provides aid in finding employment to those in need by backing employment and job creation projects. The efforts of FAPE ENGIE rely on the involvement of current and retired employees, as well as ENGIE Group companies, in lending assistance to job seekers and the unemployed. In these efforts, FAPE ENGIE uses three tools:

- Employment and social integration programs
- Support for developing an independent activity
- Support for starting a business

Over the past 17 years, employee contributions and corporate donations have helped FAPE:

- fund more than 2,200 projects,
- allocate €23 million in grants,
- create 12,000 jobs.

Transparency goes to the heart of accountability. Leading companies recognize that transparency and disclosure are crucial in terms of meeting the expectations of a wide group of stakeholders. Such efforts help companies focus on continuous improvement and turning principles into results – a process which is crucial in terms of realizing gains and building trust.

#### 7.1. Transparency:

ENGIE possesses the means necessary to comply with the most stringent corporate governance requirements, in keeping with its own culture of transparency.

At the highest level of the Company, these issues are reviewed by the Board of Directors' Ethics, Environment and Sustainable Development Committee.

Ethics policies are coordinated by the Executive Committee by the Group"s General Secretary, who is also its Chief Ethics Officer.

The Business Ethics and Compliance Division, which reports to the Office of the General Secretary, contributes by establishing the Group's ethics rules, and ensures they are incorporated into its strategy, management and practices.

Each Business line and Business unit has its own ethics officer. The Group has a network of more than 100 ethics officers and ethics coordinators who are thus at work in the field throughout the Group.

The Compliance Committee, chaired by the Group's Chief Ethics Officer, includes the heads of the Audit, Legal, Compliance and Ethics Divisions. It ensures that the Group complies with its own ethics rules throughout, and can detect any abuse.

As of July 22, 2008, the ENGIE Board of Directors adopted a set of documents to establish the channels and resources for efficient Group operation. (Amendment of these documents by the Board in 2012) These documents lay out the rights and duties of each Director with complete transparency:

• The Internal Regulations define the composition and operations of the Board, and the scope of Board, General Management, and Board Committee responsibility.

http://www.engie.com/wp-content/uploads/2012/05/governance\_governance\_ri\_gdfsuez\_2012\_04\_23.pdf

 The Directors' Charter sets out rules for the office of a Director: respect for the company's interests, compliance with the law and bylaws, the Directors' independence and duty of expression, conflicts of interest, professionalism, involvement, and efficiency. http://www.engie.com/wp-

content/uploads/2012/05/governance\_governance\_gdfsuez\_charte\_administrateur\_2008\_12\_17.pdf

 The Code of Conduct lays down rules covering transactions in the Company's securities and insider trading, applying to Directors, corporate officers, and all employees.

content/uploads/2012/05/governance\_governance\_code\_de\_bonne\_conduite\_2011\_01\_13.pdf

A set of documents establish the framework and rules to which all of the Group's current actions must adhere: the guidelines for commercial relationships, the

environmental charter, guidelines for handling information: protecting the confidentiality of inside information, code of conduct, purchasing ethics, and ethics in supplier relations.

All ethics documents and guides currently in preparation will be published in 20 languages and widely distributed. They will present the rules and principles to protect the Group against risks that might affect its operation, integrity or image. They must serve as a benchmark for all units, enabling them to comply at all times with all national and international regulations. In particular, they present lists of best practices and prohibited practices within the Group for all situations an employee might face in a commercial relationship: invitations and gifts, commissions, conflicts of interest, fraud, financing of political parties, etc.

#### 7.2. ENGIE is signatory of the UN Global Compact principles

ENGIE was one of the first companies to join the Global Compact when the initiative was launched by the Secretary General of the United Nations.

The ENGIE Sustainable Development policy, its principles of corporate governance, and its principal charters all comply with the principles of the Global Compact. The Group and all its employees share one certainty: sustainable development is an imperative. The associated environmental, ethical, social and societal challenges are unavoidable for a company like ours.

ENGIE has established policies on ethics, fighting corruption and sustainable development. Its commitments in this regard are formally laid down in the Environmental and Societal Responsibility policy, the Ethics Charter, and the Ethics Guidelines for Commercial Relationships.

http://www.gdfsuez.com/en/analysts/policy/

#### **Communication on progress**

The principles of the Global Compact reinforce ENGIE's commitment to sustainable development in its own activities, and encourage internal synergy.

In less than 10 years, the Global Compact has become a platform for the exchange of views and information among the United Nations, business, trade unions, and society at large – a place for promoting and sharing values and best practices for responsible management.

Every year, ENGIE prepares its communication on progress report for the UN GLOBAL COMPACT. The Communication on progress can be found on various websites from the UN GLOBAL COMPACT (web to the French network "association des amis du pacte mondial") and ENGIE web site.

#### Ethics

Gérard Mestrallet signed a letter from the Top Executives of Industry in support of actively applying the 2003 United Nations Convention against Corruption, ratified by 130 countries. This letter to the Secretary General of the UN was signed by 29 other top executives of international companies.

#### French UN Global Compact network "association des amis du Pacte Mondial"

Gérard Mestrallet, Chairman and CEO of ENGIE has been leading the French UN Global compact network. This year the Global Compact has more than 6,000 members all over the world, nearly 600 of them in France, embracing a gamut of large, small and medium-size businesses and other organizations.

## 7.3. ENGIE is a member of several networks working on transparency and sustainable development

ENGIE is member of various national and international networks working on sustainable development and ethical issues. As an example, the Group is member of the network Transparence international, the French network of Transparency international.

#### 7.4 Sustainable development Performance indicators

For ENGIE measuring sustainable development performance should be done through environmental, social and financial reporting.

In order to ensure the transparency and reliability of the data it publishes, ENGIE has initiated the progressive review by its Auditors of the quality of certain indicators related to the environmental and corporate data published. This is a well established procedure implemented in accordance with the Global Reporting Initiative guidelines and with the French "New Economic Regulations" (NRE) Act and the Article 225 of the Grenelle II law..

Among the verified Key Performance Indicators, two are directly related to water:

#### • Consumption of water used for industrial processes (GRI EN8) :

Water consumption for industrial process: volume of water removed from surface water, ground water and the public network. This is the volume of water used for water softening installations, low NOx installations, de-sulphurisation installations and bottom-ashes extraction in open circuits. Water consumption for cleansing activities (SITA) is included. The following water consumptions are excluded from this indicator: water for cooling system, water used by third parties, sanitary water.

• Consumption of water used for cooling processes (GRI EN8) :

The volume of water removed from surface water used for cooling processes that does not return to the source (evaporated water or water sent to the sewage system) or for which water quality have been changed + Total ground water and public network water consumption for cooling process.

A dedicated reporting tool enables the structured communication of data. This tool, known as CERIS, is an IT solution for environmental reporting, which enables the management of the network of environmental agents and coordinators, the management and documentation of the environmental reporting scope, the input, control and consolidation of indicators, the production of reports and finally the

availability or publication of the documentation necessary for the collection of data and the control of information feedback. CERIS now covers all the Business Lines and is today deployed directly in most Business Lines and subsidiaries. As a consequence, the consumptions of water used for the industrial process and cooling process are monitored and well-known for each subsidiary and for each Business Line, allowing the implementation of either global, either local action plans, depending on the criticality of the situation.

2011 was a revolutionary year for water reporting. We changed the primary indicators in order to enhance our knowledge and understanding of the water footprint and water balance. In addition to the two externally verified indicators, the entities also currently report on:

- The volume of water withdrawal per water source (GRI EN8)
- The volume of water discharge per receptor (GRI EN21)
- The water recycled and the water reused (GRI EN10)

ENGIE has also a cross-reference table featuring the principles of the United Nations "Global Compact, of which ENGIE has been a founding member since 2000 (annex 1)

ENGIE is responding to the CDP Water questionnaire each year. The response is online. <a href="https://www.cdp.net/en-US/Results/Pages/Responses.aspx?Search=True&Keyword=GDF+SUEZ">https://www.cdp.net/en-US/Results/Pages/Responses.aspx?Search=True&Keyword=GDF+SUEZ</a>

ENGIE is also involved in the international working group created by the World Energy Council and the World Water Council called "Water for Energy Framework". This working group is derived from the World Water Forum and published the first results at the Daegu water forum.

In 2011-2012, we began to analyze water-related risk facing the water-stressed areas at watershed scale. The tool selected for this job is the Global Water Tool of the WBCSD. The risk assessment is reviewed each year with Aqueduct.

ENGIE has developed several working groups on ecological footprint and performance indicators:

- At the R&D department of ENGIE and SUEZ, two dedicated teams work on the elaboration of an ecological footprint tool for the Group.

- At the R&D department we also work on the integration of the water footprint in the Life Cycle Assessment (LCA) of the kWh of electricity worldwide and the LCA of the natural gas chain.

- At the environmental department, the environmental network is currently working on the selection of new reporting indicators, including the water footprint assessment to cover all environmental risks.

## **ANNEX:** Publications

#### 2015 Integrated report



http://library.engie.com//uid\_60739761-ccae-4611-8adb-dd45918d837b/beevirtua/beevirtua.html#app=3d20&adf3-lang=en&ccb3-pageId=0&9557-source=xmlConfs/init.xml



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