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# On the way to a water stewardship

Communication on Progress 2016  
CEO Water Mandate

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## Managing ENGIE's water footprint responsibility

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In 2016, the Global Economic Forum risks evaluation showed that the water crisis is still at the third place of the global risks. In 10 - 15 years, we will have to face a lack of fresh water and potential important conflicts on water use. In this context knowing, anticipating, reducing the impacts on water of ENGIE's activity is crucial.

Water, such as energy, is essential for life. The energy sector is the second water user on the earth after agriculture. Links are strong between energy and water. Hence we include water in our environmental priorities, and we identify the sites which are more exposed to a water stress to develop action plans in concertation with the stakeholders involved in the watersheds.

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 environmental impact throughout its businesses, promoting sustainability from the level of Group operations and all the way to the activities of its customers.

As the leader of the energy transition, we promote the water stewardship and we are involved in international initiatives relating to water governance, disclosure, risk assessment, supply chain involvement, water reuse, and nature valuation. We also support the implementation of the water footprint methodologies for the energy activities.

In 2016, we have defined a new target based on a ratio of fresh water withdrawals and energy generated. In order to reduce the impact on fresh water resources worldwide, we aim to reduce this ratio by 15% by 2020.

As the CEO of ENGIE, I am very pleased to renew the Group's commitment to the CEO Water Mandate. As a global leader in the energy transition, we are determined to minimize risk associated to climate change and its water impacts, 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.

30 October, 2016

## Executive summary

- ≈ As an important user of water, ENGIE has developed a strong policy regarding water management, which includes assessment of water risk, implementation of actions locally with the stakeholders involved in the watershed, and assessment of the water footprint of its activities. Actions are taken to mitigate the impact on fresh water resources and to develop innovative approaches.
- ≈ ENGIE considers the preservation of the water resource as a key issue. The water management is part of the environmental and societal responsibility policy. It is important to develop collective actions and to be involved in water governance issues.
- ≈ Water is needed at any step of the energy value chain (extraction of fuels, cooling for power plants, hydropower, heating LNG, storage of natural gas, district heating or cooling systems, etc.).
- ≈ Each year, the water risk is assessed by using the Aqueduct tool (World Resource Institute). For sites located in extreme or high water stressed area, a local analysis is done, and action plan is implemented where relevant. These action plans are based on the Alliance for Water Stewardship standards (site and watershed levels, with the operational, regulatory and reputational dimensions, by integrating stakeholders and local context).
- ≈ In 2013-2014, we have assessed the water footprint of energy activities (water footprint of a kWh of electricity). In 2016, we are doing the same work for the gas supply chain.
- ≈ We have also started an analysis of the water risk for our suppliers, mainly the upstream ones (fuels extraction).
- ≈ Since 2011, we have adapted the water reporting to better identify the main axes of action. Hence we are now able to define internal targets for the Group.  
Objective 2020: 15% reduction in ratio of freshwater withdrawal to energy generation in MWh compared with 2012

# SUMMARY



## 1. Overview

ENGIE's activities strongly linked to water

## 2. Direct operations

Multiple opportunities to reduce the water use

## 3. Supply chain and Watershed management

Sustainable procurement policy, partnership in the upstream supply chain  
Involvement in the watersheds management

## 4. Collective action

Works with local, national or international actors  
Support of R&D and innovation

## 5. Public policy and Transparency

Policies developed by ENGIE  
Performance, indicators, non-financial rating

## 6. Community engagement

A social responsible company



# 1. Overview



# ENGIE in a nutshell

ENGIE is a global energy player and an expert operator in the three businesses of electricity, natural gas and energy services.

The Group develops its businesses around a model based on responsible growth to take on the major challenges of energy's transition to a low-carbon economy: access to sustainable energy, climate-change mitigation and adaptation, security of supply and the rational use of resources.

## Key figures at December 31, 2015

**154,950**



Employees throughout the world  
 — Inc. **57,750** in power and natural gas,  
 — Et **97,200** in energy services.

**€69.9**  
bn

Billion in 2015 revenues.

**70**



Operations in 70 countries.

**€22**  
bn

Billion of investment over 2016-2018.

**1,000**



Researchers and experts at 11 R&D centers.

<http://www.engie.com/en/group/>

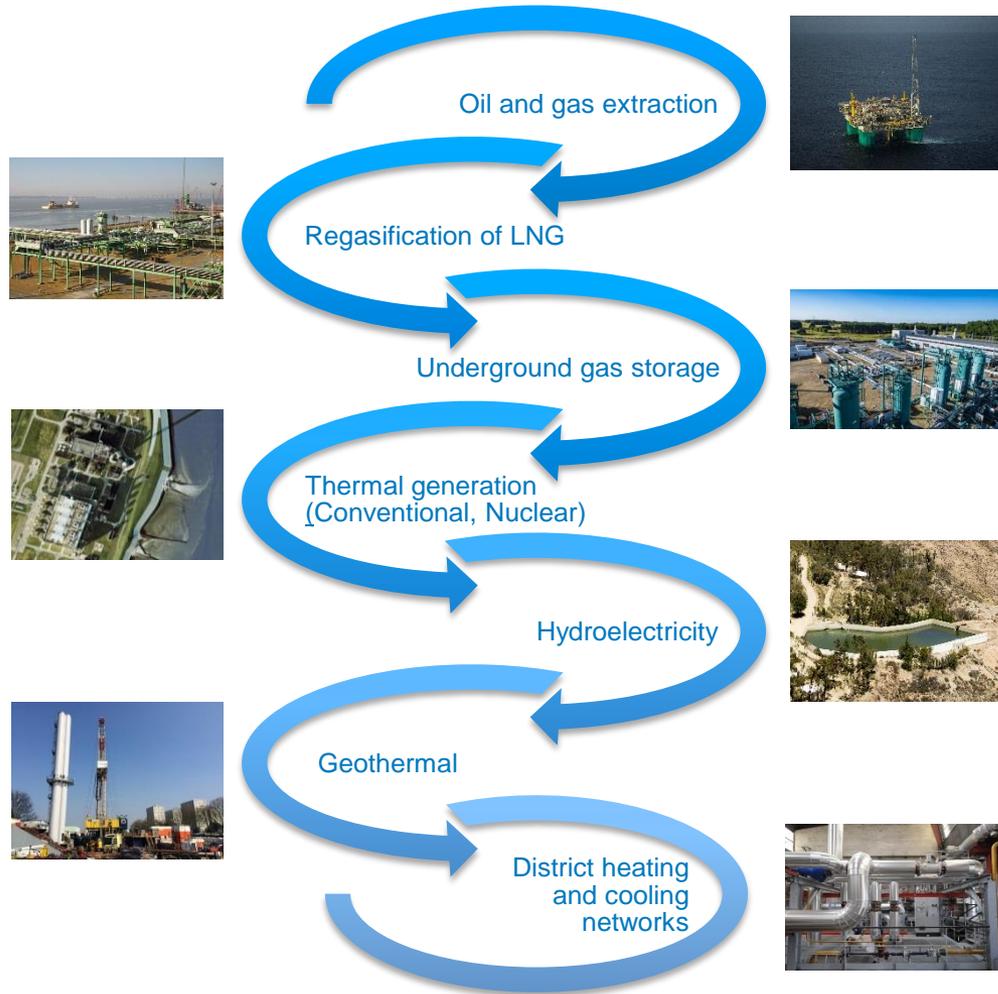
POWER *	NATURAL GAS	LNG	ENERGY SERVICES
<p><b>No.1</b> independent power producer (IPP) in the world.</p> <p><b>No.1</b> independent power producer (IPP) in the Persian Gulf countries, Brazil and Thailand.</p> <p><b>No.7</b> supplier in Europe.</p> <p><b>117.1 GW</b> of installed power-production capacity inc. 21.5 GW (18.3%) in renewable energy.</p> <p><b>8.1 GW</b> of power-production capacity under construction.</p>	<p>A supply portfolio of <b>1,132 TWH</b> (105 bcm).</p> <p><b>No.3</b> seller in Europe.</p> <p><b>No.1</b> distribution network in Europe.</p> <p><b>No.2</b> transport network in Europe.</p> <p><b>No.1</b> vendor of storage capacity in Europe.</p> <p><b>343</b> exploration and/or production licenses in 13 countries.</p> <p><b>699</b> mboe of proven and probable reserves.</p>	<p><b>No.1</b> importer of LNG in Europe.</p> <p><b>No.5</b> LNG portfolio in the world.</p> <p><b>No.2</b> operator of LNG terminals in Europe.</p> <p>A LNG supply portfolio <b>245 TWh</b> (16.4 mtpa) from 6 countries.</p> <p>A fleet of <b>14</b> LNG tankers inc. two regasification vessels.</p>	<p><b>No.1</b> supplier of energy efficiency services in the world.</p> <p><b>228</b> district cooling and heating networks operated in <b>13</b> countries.</p> <p><b>140</b> million m<sup>2</sup> managed in the tertiary sector.</p>
<p>* Including 100% of capacity of the Group's assets regardless of actual holding rate.</p>			



## 2. Direct operations



# Water is part of ENGIE's environmental and societal responsibility strategy



Energy and water are essential 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.

Water issue is part of the ENGIE's environmental and societal responsibility strategy. (<http://www.engie.com/en/analysts/actions/principle-2-acting-responsibly/environmental-conservation/>)

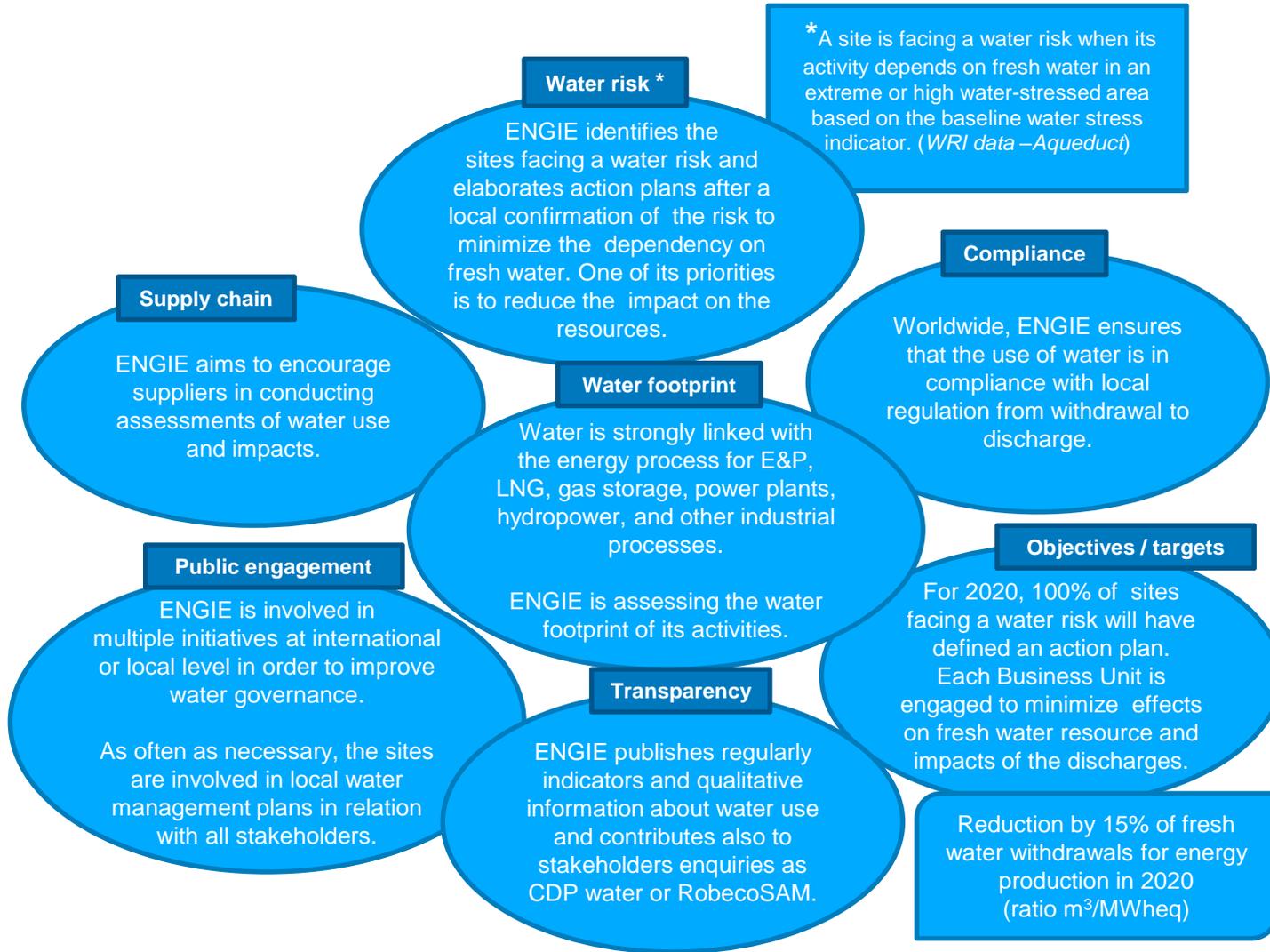
The ENGIE's environmental and societal responsibility policy is mainstreamed throughout the entire Group (<http://www.engie.com/en/analysts/policy/>). It is put into actions across all of ENGIE's business units. Each entity designs and implements an action plan based on the three policy orientations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

# ENGIE's commitments on water

Water is essential for life. But it is also a very important resource for energy production.

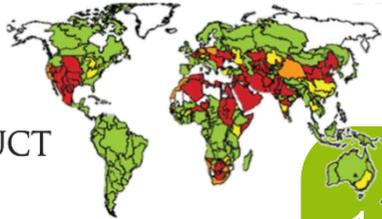
Facing the risk of water scarcity in multiple countries, regarding quantity or quality, ENGIE wants to demonstrate and continuously improve its commitment in water stewardship.

As a member of the CEO Water Mandate, the rules and commitments are based on their core elements.



# The water management methodology of ENGIE

 AQUEDUCT



  
AWARE method

1. Identifying sites located in water-stressed areas

2. Assessing their water footprint

4. Implementing action plans in concertation with local stakeholders

3. Confirming the level of water stress locally

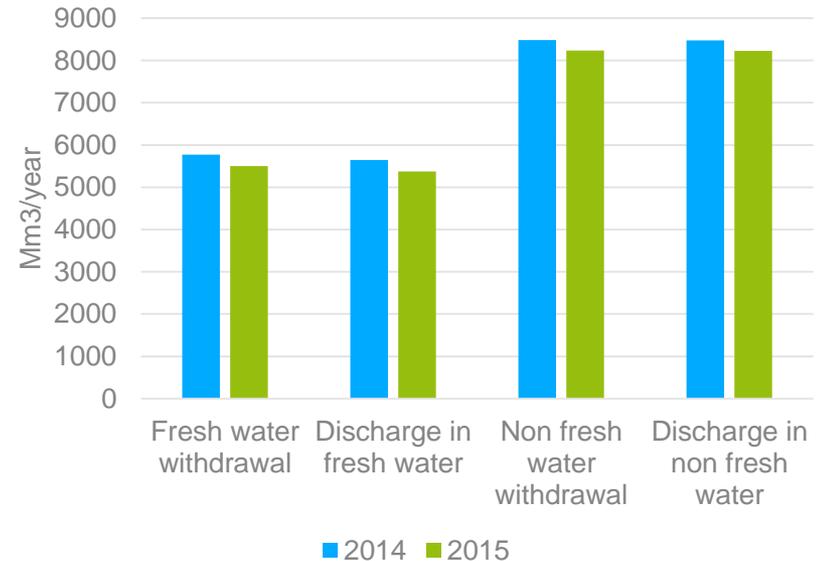
	Compagny related risk			Basin related risk	
	Water awarness	Knowledge impact	Internal action	Stakeholder engagement	Influence governance
Physical risk	Green	Green	Teal	Blue	Dark Blue
Regulatory risk	Green	Green	Teal	Blue	Dark Blue
Reputational risk	Green	Green	Teal	Blue	Dark Blue



## Direct operations – water stress analysis and actions

- 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 or cooling
  - Etc...
- Each year the Group is making an assessment of the water risk for the sites, by using the Aqueduct tool (World Resources Institute). Regarding the results concerning the probability of the Group being present in a watershed stressed area, we also analyze local risk and deploy action plans where it is necessary in collaboration with stakeholders.
- These 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.
- 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.

Evolution of water withdrawals and discharges



Target for 2020:  
Reduction by 15% in ratio of fresh water withdrawal to energy generated compared with 2012

## Direct operations – examples of good practices



Chilca uno- ENGIE Photocenter

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

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

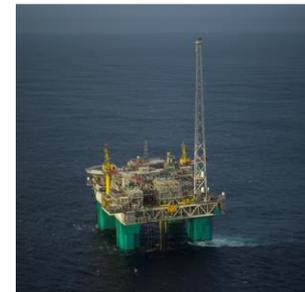
The project is including a desalinization plant to source water, reducing the exploitation of wells and avoiding use the scarce underground water. In addition, Chilca UNO is implementing a program to promote efficient water use by using aerocondensors instead of water for the cooling process. This will reduce the amount of water required from 80,000 m<sup>3</sup>/day to 1,500 m<sup>3</sup>/day.

The company has been awarded by the Sociedad Nacional de Minería Petróleo y Energía on Sustainable Development for this project.

### 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.



Gjoa - ENGIE Photocenter



Réseau de chaleur CPCU - ENGIE Photocenter

### 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 slowdown.

## Direct operations – specific actions on cooling/heating systems



Saltend - ENGIE Photocenter

### UK – Change of operational philosophy to reduce water withdrawals and outputs

Since 2013, reduction of the water withdrawals by around 60%. The site has changed the operational mode of the cooling system. They do more cycles and less blowdowns which have a positive impact on the water needs.

### Brazil – Improvement of the thermal cycle efficiency

Modification of cooling tower internal elements to reduce water temperature and improve the vacuum in the condenser. The cooling tower efficiency increased by 15%.



Jorge Lacerda - ENGIE Photocenter



LNG Mejillones - ENGIE Photocenter

### Chile – Self-sufficiency on drinking water

The LNG terminal, located in a very arid zone, is producing its own water for domestic consumption. They don't need to buy any drinking water from the network.

Indeed the fresh water is produced by the heating system used to warm the LNG to transform it in gas.

## Direct operations – examples of water reuse



Gas storage - ENGIE Photocenter

### Brine reuse - Storengy

In some places, natural gas is stored in saline cavities. The process consists in extracting a 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 are held with local authorities to promote the use of sea water used by the cooling system of the plant.



Mejillones - ENGIE Photocenter



SPEM - ENGIE Photocenter

### 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.



### 3. Supply chain and Watershed management



## 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 Group's commitments. 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.

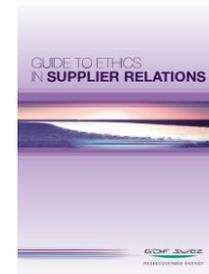
[https://www.engie.com/wp-content/uploads/2014/10/engagements\\_gb.pdf](https://www.engie.com/wp-content/uploads/2014/10/engagements_gb.pdf)

With a view of sustainable procurement, Supplier selection and management of business relationships are all based on a range of objective criteria, including:

- Respect of hygiene, health and safety rules
- Complying with Group ethical principles
- Technical and economic competitiveness
- Promotion of innovative approaches
- Environmental and social commitments
- Contractual commitments compliance
- Non-discrimination and diversity promotion

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.



Code of Conduct for Supplier Relationships

# Supply chain management

## Procurement supply policy

In the management of their purchases and of their suppliers, the Group's Procurement entities must ensure:

- Product/Services procurement conducted using secure, environmentally-friendly and energy-saving technology
- Procurement that guarantees technical and price competitiveness
- Adherence to environmental obligations: limiting emissions, waste management and recycling
- Ensuring the security of goods and persons
- Complying with legislation in terms of employment rights
- Observance of human rights
- Contractual relationships that respect suppliers: economic viability and readiness to listen to their expectations

<http://www.engie.com/en/commitments/procurement/procurement-supply-policy/>



## Suppliers assessment

ENGIE has adopted the ACESIA 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.

## Training programs for purchasers

To learn more about responsible purchasing, gain a better understanding of ENGIE's efforts in this area, and determine the best way to contribute to the Group's commitments, an online training program was developed for all purchasing teams. The program notably includes modules on sustainability, corporate social responsibility (CSR), responsible purchasing, the Group's efforts in these areas, and the integration of corporate social responsibility into each step of the purchasing process by considering needs, life cycles, certifications, etc. The training program also deals with issues related to disabilities and relations with companies specialized in disabilities and accessibility.

## Supply chain initiatives – Fuel suppliers

ENGIE aims to be active in the upstream supply chain with engagements on social and environmental responsibility

### Bettercoal

ENGIE is a member of the Bettercoal initiative, which is a global not-for-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.

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/about>



### Sustainable biomass partnership

ENGIE is also member of the sustainable biomass partnership (SBP), which is a unique certification scheme designed for woody biomass, mostly in the form of wood pellets and wood chips, used in industrial, large-scale energy production.

SBP's vision is an economically, environmentally and socially sustainable solid biomass supply chain that contributes to a low carbon economy.

The risk assessment includes water issues such as impacts linked to the forest management, water supply, etc.

<http://www.sustainablebiomasspartnership.org/>



## Watershed involvement

**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 watersheds management, and support and integrate regional plans. Local action plans are based on the Alliance for Water Stewardship approach with both operational and watershed actions.



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

From 2004 to 2014, 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.

A 3<sup>rd</sup> plan is ongoing from 2014 to 2018.



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

By working closely with local partners, Tractebel Energia has launched a "Good Water" program in the region of 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.



### 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 Kwinana cogeneration, located near Perth, has modified its process so that it can substitute 80% of its fresh water with recycled industrial process water. Companies in the industrial zone have since followed the plant's example, further reducing the demand for fresh water.



## 4. Collective actions



## Collective action – working with actors at international, national and local levels

The activities of ENGIE, as a provider of public utility services to local governments and companies around the world, lie 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.

### Glow's 4th annual Huay Mahad Reforestation

Glow Group, in collaboration with the public and private sectors, has jointly planted in the 4th annual Huay Mahad Reforestation. The project would help increase and preserve the forests, which are main sources of water, and maintain balanced ecosystem. Glow will support the maintenance of the forest for five years before presenting it to the community.



### ENGIE Tractebel Energia has been developing since 2010 the River Source Protection Program

Located in the region of Salto Osorio and Salto Santiago Power Plants, in the State of Paraná, the project, a partnership between ENGIE Tractebel Energia and various local entities, have already protected a total of 380 springs, benefiting 402 families. The success of the project encouraged ENGIE Tractebel Energia to expand the program to 3 other cities of the region. The protection of river sources aims to contribute to the improvement of the quality of the water consumed by the Community and, consequently, reduce the incidence of diseases caused in children and adolescents by pathogenic organisms.



## Collective action - Partnerships with international actors

- Member of the water group since 2011
- Issues:
  - Water, energy, food nexus
  - Natural water infrastructure
  - Water stewardship,
  - WASH (Water Access, Sanitation and Hygiene)
  - Industrial water reuse
  - Water efficiency in agriculture and forestry



**WBCSD**

- Member since the beginning in 2007
- Three key issues
  - Water disclosure
  - Access to water and sanitation
  - Water action hub



**CEO Water Mandate**

- Engagement signed by the end of 2015 during the COP21
- 3 levels of action :
  - Risk analysis
  - Water footprint
  - Reduction of direct and indirect impacts



**BAFWAC**  
(Business Alliance For Water And Climate change)

- Member of the steering committee since the beginning in 2013
- Elaboration of a framework for the evaluation of the impact of the energy activities on water



**W4EF**  
(Water for Energy Framework)

- Member since January 2014 in the “Water governance” initiative
- Participation in the working group “Stakeholder engagement for effective water governance”
- 2016-2018 Works are focused on:
  - good practices
  - indicators



**OECD**

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## Collective action - Support of development of water footprint methodologies

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**ENGIE is working on water footprint issues since 2012.**

**We have assessed the water footprint of one kWh of electricity and of 1MJ of natural gas.**



The WULCA working group works as an international working group focusing on water use assessment and water footprinting taking the life cycle perspective. The group was founded in August 2007 under the auspices of the UNEP/Society for Environmental Toxicology and Chemistry (SETAC) Life Cycle Initiative, a partnership to enable users around the world to put life cycle thinking into effective practice. The working group represents a community of people from academia, various industries (e.g. chemical, food and consumer goods industry, pulp and paper, water treatment, etc.) and public institutions. Constituting a multi-stakeholder group, the group acts globally and cross-sectoral.

In 2015-2016, ENGIE has contributed and supported financially to the development of the AWARE methodology, which aims to propose a consensual method to assess water scarcity footprint.

In 2015, ENGIE has developed with ETH Zurich, the most recognized research center in terms of water footprint impact assessment, and Quantis a specific methodology to assess the impacts of thermal pollution on ecosystem quality.

The methodology developed has been implemented within an operational tool that delivers a regionalized and temporalized assessment of the thermal pollution impact of ENGIE's plants. This tool can be used to support the decision-making process regarding water management at the plant level.





## 5. Public policy and transparency



## Public policy and governance

The ENGIE Environmental and Societal Responsibility 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.engie.com/en/analysts/policy/>



The Governance of the environmental and societal responsibility is a top priority within the Group and therefore directly managed by the Ethics, environment and sustainable development Committee, the Group's Executive Committee and the Environmental and Societal Responsibility Executive Committee. They regularly have feedbacks on the water management evolution.

The Board of Director's Ethics, Environment and Sustainable Development Committee (EESDC) oversees compliance with the individual and collective values that form the basis of the Group's actions and with the rules of conduct that each employee must follow.

The ENGIE Board of Directors defines the strategic guidelines and directions of the business, and the Executive Committee implements Group strategy to succeed in the energy challenges of tomorrow.

The Environmental and Societal Responsibility Executive Committee, implements the Group environmental and societal responsibility policy and ensures that information and experience about environmental and societal responsibility strategies are shared between the corporate and the Business Units.

The Environmental and Societal Responsibility division works in coordination with all the operational and functional divisions of the Group such as purchases, human resources, finances, etc.

## Transparency

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.

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 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.

<http://www.engie.com/en/analysts/performance/non-financial-ratings/global-compact/>

ENGIE is answering each year to multiple rating agencies and questions from investors.

ENGIE sees sustainable development as contributing to the Group's ability to create long-term value through the joint development of sustainable business and appropriate management of non-financial risks. Non-financial ratings agencies focus the majority of their audit on how companies manage these risks. Their performance rating is not only a measure of external recognition, but also provides essential guidance for the process of improving how companies manage these risks.

The Group is answering among others to the CDP water questionnaire each year, since the beginning. The answer is publicly available on their website. <https://www.cdp.net/en/responses?utf8=%E2%9C%93&queries%5Bname%5D=ENGIE>

In 2016, ENGIE is the top utility in the Dow Jones Sustainability Index World in the "Multi and Water Utilities" category. The score on water issues is maximal for 2 years now. <http://www.engie.com/en/journalists/press-releases/1-utility-in-the-multi-and-water-utilities-sector-of-the-dow-jones/>

## Transparency – 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.

For all the activities, water indicators cover nearly all the information asked by the GRI guidelines:

- Withdrawals
- Discharges
- Consumption
- Reuse and recycling

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

- At the R&D department of ENGIE, dedicated teams work on the elaboration of an environmental footprint methodologies 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 implementation of the internal objective to reduce the fresh water withdrawals for energy production

Indicator title	Scope covered in 2015 (% relevant revenue)	ENGIE 2015	ENGIE 2014
<b>Fresh water</b>			
Total withdrawal	99.55%	5,503 Mm <sup>3</sup>	5,772 Mm <sup>3</sup>
Total discharge	99.33%	5,371 Mm <sup>3</sup>	5,647 Mm <sup>3</sup>
<b>Non-fresh water</b>			
Total withdrawal	99.80%	8,234 Mm <sup>3</sup>	8,481 Mm <sup>3</sup>
Total discharge	99.82%	8,230 Mm <sup>3</sup>	8,471 Mm <sup>3</sup>
Total consumption	99.61%	135.9 Mm <sup>3</sup>	135.4 Mm <sup>3</sup>

Reference document 2015



## 6. Community engagement



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## Community engagement – ENGIE a social responsible company

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

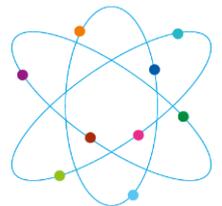
As an international Group, ENGIE is a societal responsible company in all the countries where it operates. This commitment takes different forms and is adapted to local socio-economic contexts to be as concrete and effective as possible.

As a participant in long-term activities that provide essential services to populations, ENGIE is a major player in local sustainable development. It is involved in many diverse areas:

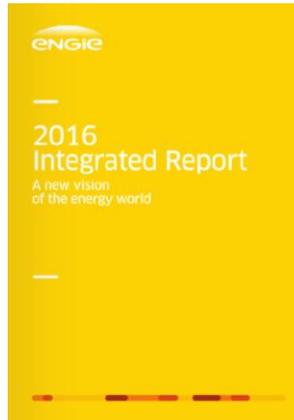
- the establishment of new infrastructure (renewable energy and natural gas for instance)
- conservation of the environment
- jobs creation
- support for development of local economies
- support for community groups and general interest participants
- improvement of living conditions through access to services
- solidarity through aid to low-income households

The ENGIE Foundation, based on nearly 20 years of action, establishes its philosophy and actions as the continuation of the social, civic and environmental commitment of the Group. When it was created in September 2010, it chose two main spheres of activity in accordance with ENGIE businesses and values: solidarity and the environment.

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.



## Annex - Recent publications



All the documents are available on ENGIE's library online

[http://library.engie.com/Library/client/flash/beevirtua.html?#app=4ac3&7652-str=biblio&96fc-str=50&adf3-lang=en&cfc6-str=View\\_d9706214-1210-44a9-b641-d4908c8ee888](http://library.engie.com/Library/client/flash/beevirtua.html?#app=4ac3&7652-str=biblio&96fc-str=50&adf3-lang=en&cfc6-str=View_d9706214-1210-44a9-b641-d4908c8ee888)

