

GDF SUEZ

REFERENCE DOCUMENT **2008**

REDISCOVERING ENERGY



## REFERENCE DOCUMENT 2008

**Incorporation by reference**

Pursuant to Article 28 of European Regulation No. 809/2004 of April 29, 2004, this Reference Document incorporates by reference the following information to which the reader is invited to refer:

- with regard to the fiscal year ended December 31, 2007 for Gaz de France: management report, consolidated financial statements, prepared in accordance with IFRS accounting principles and the related Statutory Auditors' reports found on pages 113 to 128 and pages 189 to 296 of the Reference Document, registered on May 15, 2008 with *l'Autorité des Marchés Financiers* (French Financial Markets Authority, or AMF), under R. 08-056;
- with regard to the fiscal year ended December 31, 2007 for SUEZ: management report, consolidated financial statements, prepared in accordance with IFRS accounting principles and the related Statutory Auditors' reports found on pages 117 to 130 and pages 193 to 312 of the Reference Document, filed on March 18, 2008 with *l'Autorité des Marchés Financiers* (French Financial Markets Authority, or AMF), under D. 08-0122 as well as its update filed on June 13, 2008 under D. 08-0122-A01;
- with regard to the fiscal year ended December 31, 2006 for Gaz de France: management report, consolidated financial statements, prepared in accordance with IFRS accounting principles and the related Statutory Auditors' reports found on pages 105 to 118 and pages 182 to 294 of the Reference Document, registered on April 27, 2007 with *l'Autorité des Marchés Financiers* (French Financial Markets Authority, or AMF), under R. 07-046;
- with regard to the fiscal year ended December 31, 2006 for SUEZ: management report, consolidated financial statements, prepared in accordance with IFRS accounting principles and the related Statutory Auditors' reports found on pages 117 to 130 and pages 194 to 309 of the Reference Document, filed on April 4, 2007 with *l'Autorité des Marchés Financiers* (French Financial Markets Authority, or AMF), under D. 07-0272.

The information included in these Reference Documents, other than that referred to above, is replaced or updated, where applicable, by the information contained in this Reference Document. These Reference Documents are accessible under the conditions described in Section 24 "Documents accessible to the public" of this Reference Document.

This Reference Document contains forward-looking information in Sections 6.1 "Principal Activities", 12 "Information on Trends" and paragraph "Outlook for 2009" of the Group's activity report included in Section 9.8. This information does not constitute historical data and there is no assurance that such forward-looking facts, data or objectives will occur or be met in the future. Such information is subject to external factors, such as those described in Section 4 "Risk Management".

Unless expressly stated to the contrary, the market data included in this Reference Document is based on internal estimates made by GDF SUEZ using publicly available information.

Copies of this Reference Document are available free of charge from GDF SUEZ, located at 22, rue du Docteur Lancereaux – 75008 Paris, and on the Company's website ([www.gdfsuez.com](http://www.gdfsuez.com)), as well as on that of *l'Autorité des Marchés Financiers* (French Financial Markets Authority, or AMF ([www.amf-france.org](http://www.amf-france.org))).



The French version of this Reference Document was filed with the *l'Autorité des Marchés Financiers* (French Financial Markets Authority, or AMF) and was registered under No. D.09-197 on April 6, 2009, in accordance with the provisions of Article 212-13 of the General Regulations of the AMF.

It may be used in support of a financial transaction if it is supplemented by an offering memorandum approved by the AMF.

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**NOTE**

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For the purposes of this Reference Document, “GDF SUEZ”, “the Company” or “the Issuer” all refer to the company GDF SUEZ SA (formerly called Gaz de France), as a result of the merger of Suez (absorbed company) by Gaz de France (absorbing company) and as identified in Sections 5.1, – “History and Development of the Company” and 6.3.1 “Merger of Gaz de France and Suez”. The term “Group” refers to GDF SUEZ and its subsidiaries.

A glossary of the most commonly used technical terms is appended to this Reference Document.

This document is an informal English translation of the French language Document de Référence, filed with the French Financial Markets Authority (*Autorité des Marchés Financiers*) under the number D.09-197 on April 6, 2009. It is provided solely for the information and convenience of shareholders of GDF SUEZ, and is of no binding or other legal effect. No assurances are given as to the accuracy or completeness of this translation, and GDF SUEZ assumes no responsibility with respect to this translation or any misstatement or omission that may be contained therein. In the event of any ambiguity or discrepancy between this English translation and the French language Document de Référence, the French language Document de Référence shall prevail. This document is not an offer to sell or the solicitation of an offer to purchase shares of GDF SUEZ, and it is not used for any offer or sale or any such solicitation anywhere in the world. Shares of GDF SUEZ may not be sold in the United States absent registration or an exemption from registration under the U.S. Securities Act of 1933, as amended. GDF SUEZ does not intend to register any portion of any offering in the United States or to conduct a public offering of shares in the United States.

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# 1

## PARTIES RESPONSIBLE

### 1.1 PARTIES RESPONSIBLE

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Gérard Mestrallet, Chairman and Chief Executive Officer

Jean-François Cirelli, Vice-Chairman and President

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# 1

## PARTIES RESPONSIBLE

### 1.2 DECLARATION OF THE PARTIES RESPONSIBLE FOR THE REFERENCE DOCUMENT

## 1.2 DECLARATION BY THE PERSONS RESPONSIBLE FOR THE REFERENCE DOCUMENT COMPRISING THE ANNUAL FINANCIAL REPORT

"We hereby certify, after having taken all reasonable measures to this effect, that the information contained in this Reference Document is, to our knowledge, in accordance with the facts and makes no omission likely to affect its import.

We certify, to our knowledge, that the financial statements have been prepared in accordance with the applicable accounting standards and give a true and fair view of the assets and liabilities, financial position and profit or loss of the Company and all the undertakings included in the consolidation, and that the management report on pages 153 to 174 presents a fair review of the development and performance of the business and financial position of the Company and all the undertakings included in the consolidation as well as a description of the main risks and uncertainties to which they are exposed.

We have received a completion letter from the Statutory Auditors stating that they have audited the information contained in this Reference Document relating to the financial position and financial statements, and that they have read the Reference Document in its entirety. The letter does not contain any observations.

The Statutory Auditors' report on the historical financial information presented in Sections 20.1 and 20.2 of this Reference Document is set out in Section 20.3. The report contains an observation regarding the change in accounting policy for reporting segment information following the Group's early adoption of IFRS 8 "Operating Segments" when preparing the 2008 consolidated financial statements.

The Statutory Auditors' report on the 2008 pro forma financial information presented in Section 20.4 of this Reference Document contains an observation relating to paragraph 3 "Tax matters" of Note 2 "Basis of presentation" to the pro forma financial information which describes the impact on the consolidated financial statements of the rulings obtained from the French tax authorities and of the discontinued neutralization of certain transactions following the dissolution of the SUEZ SA tax consolidation group. It specifies that the pro forma income statements for the years presented were not restated to take these various items into account.

The Statutory Auditors' report on the 2008 parent company financial statements presented in Section 20.5 of this Reference Document contains observations relating to the change in accounting policies used to recognize transaction fees on equity investments and bond issue costs, as described in Notes A, B-4 and B-5 to the parent company financial statements.

The Statutory Auditors' reports on the IFRS consolidated financial statements of Gaz de France for the years ended December 31, 2007 and 2006 are set out (i) for 2007: in Section 20.1.1.2 of the 2007 Reference Document of Gaz de France, registered with the French Financial Markets Authority (*Autorité des marchés financiers* – AMF) on May 15, 2008 under number R. 08-056, and (ii) for 2006: in Section 20.1.1.2 of the 2006 Reference Document of Gaz de France registered with the AMF on April 27, 2007 under number R. 07-046.

The Statutory Auditors' reports on the IFRS consolidated financial statements of SUEZ for the years ended December 31, 2007 and 2006 are set out (i) for 2007: in Section 20.3 of the 2007 Reference Document of SUEZ, filed with the AMF on March 18, 2008 under number D. 08-0122, and (ii) for 2006: in Section 20.3 of the 2006 Reference Document of SUEZ, filed with the AMF on April 4, 2007 under number D. 07-0272."

Chairman and Chief Executive Officer  
**Gérard Mestrallet**

Vice-Chairman and President  
**Jean-François Cirelli**

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## 2.1 STATUTORY AUDITORS

### 2.1.1 STATUTORY AUDITORS

- **Mazars**

Represented by

**Mr. Philippe Castagnac** and **Mr. Thierry Blanchetier**

Tour Exaltis, 61, rue Henri Regnault, 92075 Paris la Défense Cedex

Mazars has been a Statutory Auditor for the Company since January 1, 2002. Its term of office was renewed at the Combined General Shareholders' Meeting of May 19, 2008 for a period of six years and will expire at the close of the 2014 Ordinary General Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2013.

- **Ernst & Young et Autres**

Represented by

**Mr. Christian Mouillon** and **Ms. Nicole Maurin**

41, rue Ybry, 92576 Neuilly-sur-Seine Cedex

Ernst & Young et Autres has been a Statutory Auditor for the Company since January 1, 2002. Its term of office was renewed at the Combined General Shareholders' Meeting of May 19, 2008 for a period of six years and will expire at the close of the 2014 Ordinary General Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2013.

- **Deloitte & Associés**

Represented by

**Mr. Jean-Paul Picard** and **Mr. Pascal Pincemin**

185, avenue Charles-de-Gaulle, BP 136, 92203 Neuilly-sur-Seine

Deloitte & Associés was appointed Statutory Auditor for the Company for the first time at the Combined General Shareholders' Meeting of July 16, 2008 for a six-year term that will expire at the close of the 2014 Ordinary General Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2013.

### 2.1.2 SUBSTITUTE STATUTORY AUDITORS

- **CBA**

61, rue Henri Regnault, 92400 Paris la Défense Cedex

CBA was appointed substitute Statutory Auditor for the Company for the first time at the Combined General Shareholders' Meeting of May 19, 2008 for a six-year term that will expire at the close of the 2014 Ordinary General Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2013.

- **AUDITEX**

81, rue de Miromesnil, 75008 Paris

Auditex has been a substitute Statutory Auditor for the Company since January 1, 2002. Its term of office was renewed at the Combined General Shareholders' Meeting of May 19, 2008 for

a six-year term that will expire at the close of the 2014 Ordinary General Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2013.

- **BEAS**

7-9, villa Houssay, 92524 Neuilly-sur-Seine

BEAS was appointed substitute Statutory Auditor for the Company for the first time at the Combined General Shareholders' Meeting of July 16, 2008 for a six-year term that will expire at the close of the 2014 Ordinary General Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2013.

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## 2.2 RESIGNATION OR DEPARTURE OF STATUTORY AUDITORS

- **Cailliau Dedouit et Associés**

19, rue Clément Marot, 75008 Paris

The term of Cailliau Dedouit et Associés as Substitute Statutory Auditor for the Company, a function held since January 1, 2002, expired and was not renewed at the Combined General Shareholders' Meeting of May 19, 2008.

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## PARTIES RESPONSIBLE FOR AUDITING

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## SELECTED FINANCIAL INFORMATION

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Financial information concerning the assets, liabilities, financial position, and profit and loss of GDF SUEZ, and for the groups comprising the merged entity, i.e., SUEZ and Gaz de France, has been provided for the last five reporting periods (years ended December 31, 2004, 2005, 2006, 2007 and 2008) and has been prepared in accordance with the European Regulation (EC) 1606/2002 on International Accounting

Standards (IFRS) dated July 19, 2002 as published by the International Accounting Standards Board (IASB) and adopted for use in the European Union at that date.

The Group's key figures also include pro forma information for the years ended December 31, 2008 and 2007, as though the merger had taken place on January 1 of each of the periods presented.

## KEY FIGURES

In millions of euros	GDF SUEZ (published)	GDF SUEZ (pro forma)	GDF SUEZ (pro forma)	SUEZ	Gaz de France
	2008	2008	2007	2007	2007
<b>1. Revenues</b>	<b>67,924</b>	<b>83,053</b>	<b>71,228</b>	<b>47,475</b>	<b>27,427</b>
of which revenues generated outside France	47,156	52,708	43,998	35,543	11,361
<b>2. Income statement</b>					
• EBITDA	10,054	13,886	12,539	7,433	5,696
• Gross operating surplus					5,666
• Gross operating income				7,965	
• Operating income					3,874
• Current operating income	6,224	8,561	7,824	5,175	
• Net income Group share	4,857	6,504	5,752	3,924	2,472
<b>3. Cash flows</b>					
Cash flow from operating activities	4,393	7,726	10,429	6,017	4,778
of which cash generated from operations before income tax and working capital requirements	9,686	13,287	12,451	7,267	
of which operating cash flow					5,904
Cash flow from (used in) investing activities	(7,348)	(11,845)	(6,937)	(4,681)	(2,623)
Cash flow from (used in) activities financing	5,528	3,084	(4,231)	(2,518)	(1,403)
<b>4. Balance sheet</b>					
Shareholders' equity	57,748	57,748	NA	22,193	17,953
Total equity	62,818	62,818	NA	24,861	18,501
Total assets	167,208	167,208	NA	79,127	46,178
<b>5. Share data (in euros)</b>					
• Average number of shares outstanding <sup>(a)</sup>	1,630,148,305	2,160,674,796	2,177,496,287	1,269,572,284	983,115,173
• Number of shares at year-end	2,193,643,820	2,193,643,820	NA	1,307,043,522	983,871,988
• Earnings per share	2.98	3.01	2.64	3.09	2.51
• Dividend distributed	1.40	1.40	NA	1.36	1.26
<b>6. Headcount</b>					
<b>Total workforce</b>			<b>NA</b>		<b>47,560</b>
<b>Total average workforce</b>	<b>234,653</b>	<b>234,653</b>	<b>NA</b>	<b>192,821</b>	
• Fully consolidated companies	194,920	194,920	NA	146,350	
• Proportionately consolidated companies	31,174	31,174	NA	37,592	
• Equity-accounted companies	8,559	8,559	NA	8,879	

(a) Earnings per share is calculated based on the average number of shares outstanding, net of treasury shares.  
2008 dividend: proposed dividend (including an interim dividend of €0.8 paid in November 2008).

	SUEZ	Gaz de France	SUEZ	Gaz de France	SUEZ	Gaz de France
<i>In millions of euros</i>	2006	2006	2005	2005	2004	2004
<b>1. Revenues</b>	<b>44,289</b>	<b>27,642</b>	<b>41,489</b>	<b>22,872</b>	<b>38,058</b>	<b>18,001</b>
of which revenues generated outside France	33,480	10,840	31,769	8,139	29,481	5,236
<b>2. Income statement</b>						
• EBITDA	6,559					
• Gross operating surplus		5,149		4,248		4,163
• Gross operating income	7,083		6,508		5,932	
• Operating income		3,608		2,821		2,255
• Current operating income	4,497		3,902		3,737	
• Net income Group share	3,606	2,298	2,513	1,782	1,696	1,307
<b>3. Cash flows</b>						
Cash flow from operating activities	5,172	3,066	5,826	2,788	4,970	3,013
of which cash generated from operations before income tax and working capital requirements	6,384		5,751		5,681	
of which operating cash flow		5,118		4,254		4,199
Cash flow from (used in) investing activities	(366)	(2,174)	(8,992)	(2,110)	124	(1,681)
Cash flow from (used in) financing activities	(6,938)	(566)	6,488	299	(8,083)	(1,121)
<b>4. Balance sheet</b>						
Shareholders' equity	19,504	16,197	16,256	14,484	7,774	10,940
Total equity	22,564	16,663	18,823	14,782	12,828	11,151
Total assets	73,435	42,921	80,443	39,936	60,292	31,907
<b>5. Share data (in euros)</b>						
• Average number of shares outstanding <sup>(a)</sup>	1,261,287,823	983,718,801	1,053,241,249	942,438,942	995,133,046	903,000,000 <sup>(b)</sup>
• Number of shares at year-end	1,277,444,403	983,871,988	1,270,756,255	983,871,988	1,020,465,386	903,000,000
• Earnings per share	2.86	2.34	2.39	1.89	1.70	1.45
• Dividend distributed	1.20	1.10	1.00	0.68	0.79	0.46
<b>6. Headcount</b>						
<b>Total workforce</b>		<b>50,244</b>		<b>52,958</b>		<b>38,088</b>
<b>Total average workforce</b>	<b>186,198</b>		<b>208,891</b>		<b>217,180</b>	
• Fully consolidated companies	138,678		157,918		160,966	
• Proportionately consolidated companies	38,567		41,673		50,614	
• Equity-accounted companies	8,953		9,300		5,600	

(a) Earnings per share is calculated based on the average number of shares outstanding, net of treasury shares.

(b) Based on a nominal value of 1 euro per share.

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## SELECTED FINANCIAL INFORMATION

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### 4.1 RISK MANAGEMENT PROCESS

The varied nature of its activities, geographic locations and offers means that GDF SUEZ presents a portfolio of risks and opportunities of a financial, industrial and commercial nature. Its leadership position in the energy and environmental services sectors, allied with its development ambitions, also expose it to strategic and reputational risks that are mainly dependent on climatic changes and changes in its businesses' regulatory environment.

The Group conducts its business in an environment subject to major changes and this creates numerous risks, some of which are beyond its control. The following is a presentation of the significant risks to which the Group considers itself to be exposed. The Group could also be affected by other unmentioned or currently unknown risks. The occurrence of one of these risks could have a significantly negative impact on the Group's activity, financial situation and results, its image, its outlook or on the GDF SUEZ share price.

## 4.1 RISK MANAGEMENT PROCESS

For several years, and based on each Group's own defined policy, both Gaz de France and SUEZ were equipped with processes for managing their risks. In 2007, both Groups published details of their risk management policies, notably in their latest report on internal control policy as an annex to their 2007 Reference Document. These policies were based on similar foundations, were consistent

with industry standards, and demonstrated their intent to reduce their risks to a reasonable level, in line with their targets.

These policies were applied until the merger of the two groups. During the second quarter prior to the merger, each entity's Business Units updated their respective risk mapping.

### 4.1.1 GDF SUEZ AUDIT COMMITTEE ROLE

In terms of risks, the Audit Committee has the following role (detailed in Section 16.3.):

- maintain regular awareness of the Group's financial and cash situation and its significant commitments and risks;
- review the risk management policy and procedures adopted to assess and manage these risks.

The global risk management policy guidelines were presented to the Audit Committee on October 14, 2008. The Audit Committee has been kept regularly informed of risk exposure associated with the financial and economic crisis. The initial risk review of all GDF SUEZ activities was presented to the Audit Committee at the beginning of March 2009.

### 4.1.2 GDF SUEZ GLOBAL RISK MANAGEMENT POLICY

GDF SUEZ aims to manage its risks in order to maintain and develop its growth, asset base, reputation and internal motivation. The Group considers as a risk "any event likely to affect the future existence of the enterprise, its reputation or the achievement of its strategic, financial and operational objectives". The Group favors reasonable and financially viable risk-taking in compliance with laws and regulations and in line with generally held opinion.

To achieve this ambition, GDF SUEZ has appointed the member of Executive Committee in charge of the Audit and Risk Division as the Group's Chief Risk Officer. The Risk Management Department

reporting to the Chief Risk Officer is responsible for managing the Enterprise Risk Management (ERM) network. Risk Officers from this department at Central level, Business Line level and Business Unit level, along with functional Departments all work to support directors in identifying and assessing risks, as well as in evaluating the means deployed to reduce and cover such risks. In early 2009, a unified risk assessment methodology will be defined, based on industry standards and best practices and the experience acquired by the two former groups.

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Depending on their nature, risks are managed by the Business line and/or functional Departments (and their networks). Specifically:

- the Finance Department manages, measures and controls risks associated with the Group's financial activities (rates, foreign exchange, liquidity and counterparty risks) within a special risk policy framework. Within the context of Group energy market risk and energy counterparty risk policies laid down by the Finance Department, the latter ensures consolidated measurement of these risks, along with second level control and management of the Energy Market Risk Committee. In addition, the Insurance Department is in charge of drafting, deploying and managing insurance programs (see Section 4.6. for further details);
- the Legal Department manages the Group's legal risks;
- the Strategy and Sustainable Development Department coordinates management of risks within its area of responsibility.

This is also the case for risks associated with ethics, compliance, security, information systems, human resources, health & safety and environmental protection for which control initiatives are coordinated by the relative Departments in charge of these areas.

Preparedness for crisis management is entrusted to the Health & Safety and Management Systems Department. Crisis management affecting personnel working in sensitive locations forms part of the Security Department's remit.

The Business Units conducted their own risk reviews prior to the merger and have since updated them as required. During the fourth quarter 2008, both the Divisions and the functional Departments conducted an initial review of their new merged activities. A summary of the results of this review was produced to highlight GDF SUEZ's main risks. The Executive Committee and the Audit Committee conducted a preliminary review of these results in January and a final review at the end of the first quarter 2009.

The Internal Audit Division within the Audit and Risk Department is responsible for preparing the GDF SUEZ audit program. The Department uses risk mapping to identify the most pertinent audit issues and to assess risk coverage. These audit results are then exploited to update risk mapping.

## 4.2 GDF SUEZ OPERATES IN A CHANGING ENVIRONMENT

### 4.2.1 AN ECONOMIC ENVIRONMENT IN CRISIS IN 2008 AND 2009

The 2008 fiscal year has been characterized by the spread of the current crisis to a worldwide level, initially in the banking and financial sectors and then in the real and industrial economy. Given its activities, GDF SUEZ is sensitive to these economic climate factors, for which the potential impacts are described below.

#### 4.2.1.1 Group activities are sensitive to economic cycles and changes in demand

Some of the Group's businesses, such as services to industrial clients, are sensitive to economic cycles. Any economic slowdown has a downward impact on industrial investments such as maintenance operations and consequently has a negative influence on demand for installation and engineering services offered by the Group's service entities. This fluctuation in demand can cause major variations in the levels of activity and margins for these businesses.

In Western Europe, the Group's activities could also suffer from relocation (offshoring) on the part of their industrial clients' businesses towards low-wage countries. In particular, in energy activities, major electricity-intensive clients (metallurgical industry, chemicals industry) could relocate their manufacturing facilities to regions where energy costs are lower than on their domestic markets.

Notably, the economic crisis that worsened at the end of 2008 could lead to a slowdown in activity with the Group's major clients and consequently contribute to a fall in unitary or overall demand for energy, water, waste management and associated services which would impact the Group via its business volumes and margins. Broad diversification within the Group across numerous geographic zones and business sectors only offers partial protection against this risk.

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### 4.2 GDF SUEZ OPERATES IN A CHANGING ENVIRONMENT

#### 4.2.1.2 Group activities are sensitive to changes in methods of consumption and production

On top of the crisis, a host of societal, regulatory and climatic factors are combining to hinder the expansion of electricity, gas and water consumption.

In terms of methods of production, one major noticeable feature is the requirement to integrate CO<sub>2</sub> constraints, coupled with measures in support of renewable energies and other regulatory and fiscal

measures that are complicating the competitive balance between the various forms of energy and creating greater uncertainty than ever before with respect to appropriate technology choices for the future (gas, nuclear, coal, renewable energy, etc.).

Any forecasting error in terms of these energy mix changes could lead to poor investment choices and compromise the Group's future profitability. However, the diversified nature and the balance of the Group's asset and client portfolios contribute to limiting its exposure to this risk, notably vis-à-vis its principal less-diversified competitors.

### 4.2.2 FINANCIAL RISKS OF THE CURRENT CRISIS

The financial crisis and its multitude of consequences in terms of liquidity and credit risks had an impact on the Group's financial activities in 2008. The following section describes the financial risks to which the Group is exposed with, as needs be, their indicators, sensitivity analyses and management and reporting methods. The potential impacts of financial risks are detailed by risk category.

At the organizational level, via its Finance Committee, the Group enacts policies with particular reference to financial risk management.

Financial risks (liquidity, rates, foreign exchange and counterparty) are managed globally by specialized financial teams at the Central level, or in the operational entities. All of these teams report ultimately to the Group Chief Financial Officer.

In order to monitor changes in financial risks and guarantee the quality of the financial information, the Group has set up a risk management reporting system based on data that is systematically reconciled with data from consolidation reporting. This reporting system covers all of the companies within the Group and provides a very detailed understanding of financial commitments. This reporting is produced quarterly, and is distributed to the Group Chief Financial Officer and to Division Financial Officers. It enables management to maintain systematic risk monitoring.

#### 4.2.2.1 Commodities market risk

In conducting its business, the Group trades in commodities markets, particularly, in the markets for gas, electricity and various oil products, either to obtain short- and long-term supplies or to optimize and secure its energy production and trading chain. The Group also intervenes on the European Union greenhouse gas emission trading scheme (CO<sub>2</sub> quotas).

In the energy sector, the Group also uses derivative products, either to offer price hedging instruments to its customers or as part of its proprietary trading.

Therefore, the Group is exposed to changes in the prices of these commodities on organized or over the counter markets. This risk is managed by using forward firm or optional derivative products.

In each of the Group's energy trading entities, exposure to these risks is measured and managed on a daily basis, in compliance with limits and management policy set down by General Management. The risk control system associated with this trading activity includes a team specialized in market and credit risk control (the Middle Office department, supported by the Back Office for accounting checks), a dedicated Risk Committee, tight internal control principles (segregation of duties, separation of tasks, verification of data such as price curves, etc.) and a set of formal policies to monitor and control market and credit risks.

The control of market risks associated with trading activities in the Group's Divisions has been reinforced by a second level control system under the aegis of the Finance Department. In this context, an Energy Market Risks Committee (EMRC) has been formed with the primary tasks of defining the overall market risk control framework and ensuring monitoring of the Group's main market exposures.

Market risk assessment is performed on the basis of portfolio positions sensitivity or on the "Value at Risk" (VAR) method which quantifies the maximum amount of the risk associated with a given holding period of a position and a given confidence level. This management data is provided in Note 15 to the Consolidated Financial Statements (see Chapter 20.2 of this Reference Document).

#### 4.2.2.2 Liquidity risk

The Group's financing policy is based on the following principles:

- centralization of external financing;
- diversification of financing sources between the banking market and the capital markets;
- balanced financial debt repayment profile.

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The GDF SUEZ Group centralizes almost all the cash needs and surpluses of companies controlled by the Group, as well as the majority of their external medium- and long-term financing requirements.

Centralization is provided via financing vehicles (long-term and short-term), as well as via the Group's dedicated cash pooling vehicles located in France, Belgium and Luxembourg.

Since the merger, the cash pooling systems existing at SUEZ and at Gaz de France have been the subject of a convergence process that is scheduled for completion in 2009, along with the automation of cash pooling systems that are still managed manually in certain other countries (USA, United Kingdom, Italy etc.).

The Group diversifies its financing resources by proceeding with, as applicable, public or private bond issues in the framework of its Euro Medium Term Notes program and by issuing commercial paper (*billets de trésorerie*) in France and in Belgium, and Commercial Paper in the United States.

In this context, and since the merger, access to long-term capital markets is concentrated on the parent company GDF SUEZ SA for the Group's new bond debt and on GDF SUEZ SA and Electrabel for commercial paper issued.

At December 31, 2008, bank resources (excluding bank overdrafts, amortized costs and the effect of derivatives) represented 40% of gross debt, with the balance financed by the capital markets (including €13,719 million in bonds, i.e. 37% of gross debt).

Outstanding short-term paper (*billets de trésorerie* and commercial paper) represented 23% of gross debt and totaled €8,666 million at December 31, 2008 (refer to Note 14.2.1 in Chapter 20.2). Due to their attractive cost and their liquidity, these programs are used in a cyclical or structural fashion to finance the Group's short-term requirements. All of the outstanding amounts are backed by confirmed bank credit facilities so that the Group would be able to continue to finance itself in the event that access to this financing source were to dry up.

Liquidity is based on maintaining cash and cash equivalents and confirmed credit facilities. The Group has confirmed credit facilities appropriate to its size with appropriate debt maturity schedules. The amount of these confirmed credit facilities represented €14,522 million as of December 31, 2008, of which €3,117 million was drawn down. 83% of the total lines of credit and 88% of the lines not drawn are centralized. None of these lines contains a default clause tied to financial ratios or ratings.

Cash (net of bank overdrafts) totaled €8,595 million as of December 31, 2008.

Surpluses carried by cash pooling vehicles are managed as part of a single policy.

In the wake of the sub-prime mortgage crisis in the summer of 2007 in the United States, almost all surpluses have been invested in time deposit accounts and regular income money market funds.

The interbank liquidity crisis created by the failure of the Lehman Brothers bank in mid-September 2008 and the ensuing rise in counterparty risk led the Group to immediately refocus this investment policy in order to attain extremely high liquidity (at December 31, 2008, 98% of centralized cash was invested in overnight bank deposits and regular income money market funds

with daily liquidity), accompanied by daily monitoring of performance and counterparty risks on both these types of investments to ensure immediate reactivity.

Cash surpluses that cannot be centralized are invested in selected instruments on a case-by-case basis, in relation to local financial market constraints and the financial soundness of counterparties'.

### 4.2.2.3 Foreign exchange risk

Due to the geographic diversification of its activities, the Group is exposed to conversion risk, which means that its balance sheet and income statement are sensitive to fluctuations in exchange parities at the time of consolidation of the accounts of its foreign subsidiaries outside the euro zone. The interests held by the Group in the United States, Brazil, Thailand, Poland, Norway, and the United Kingdom generate most of the Group's foreign exchange risk (see Note 3.3 in Chapter 20.2).

For investments in currencies not included in the euro zone, the Group's translational risk hedging policy consists of creating liabilities denominated in the same currency as the cash flows generated by these assets.

Of the hedging instruments used, debt in foreign currency is the most natural hedge, but the Group also uses currency derivatives that synthetically recreate debt in currencies: cross currency swaps, exchange rate swaps, and exchange rate options.

However, this policy cannot be implemented if the cost of hedging (specifically the interest rate of the reference currency) is too high. This is the case for Brazil where, because of a rate differential that is too high and the local revenue indexing mechanism, the Group opts for catastrophic coverage, i.e. insurance against a major depreciation in the currency (risk of temporary decoupling).

The market context is reviewed monthly for the US dollar and pound sterling. It is monitored, as often as needed, by reviews of emerging countries in order to anticipate any sudden devaluation. The hedging ratio of assets is reviewed periodically depending on the market context and each time an asset is added or removed. Any substantial change in the hedging ratio is subject to prior Management approval.

Liabilities denominated in foreign currencies represent 37% of the Group's net debt, excluding amortized costs and derivative instrument effects (refer to Note 15.1.3.1 in Chapter 20.2).

A change in currency exchange rates vs. the euro affects results only with regard to liabilities denominated in another currency, rather than the reporting currency of companies bearing these liabilities on their balance sheets, to the extent that these liabilities have not been documented as net investment hedges. Ultimately, an unfavorable, uniform change of 10% in the euro exchange rate has no material impact on earnings.

For financial liabilities (debts and derivatives) recognized as net investment hedging, a uniform unfavorable change of 10% in the euro exchange rate has a shareholders' equity impact of €176 million. This change is offset by an opposite effect on foreign currencies assets.

The Group is also exposed to transaction risk. This risk is concentrated on transactions involving energy commodities (energy

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### 4.2 GDF SUEZ OPERATES IN A CHANGING ENVIRONMENT

sales or purchase commitments), where commodities flows are settled in US dollars and pounds sterling. The corresponding cash flows are generally hedged by forward currency contracts.

The transactional currency risk is managed by dedicated teams. These specialized teams measure exposure on an ongoing basis and call upon the competence center (the Central headquarters team also responsible for translation risk management) in order to define and implement hedging instruments for these risks (see Note 15.1.3.1 in Chapter 20.2).

#### 4.2.2.4 Interest rate risk

The principal exposures to interest rates for the Group are the result of financing in euros and US dollars, which represented 86% of the net debt as of December 31, 2008.

The Group's objective is to control its financing expense by limiting the impact of interest rate changes on its income statement.

The Group's policy is to spread the reference interest rates on net debt among fixed rates, variable rates, and protected or capped variable rates. The Group aims to achieve a balanced distribution of the various reference rates over a medium-term (5 years) timeframe. However, the balance of the mix may fluctuate depending on the market context.

The Group uses hedging instruments, primarily rate swaps and options, in order to manage the interest rate structure for its net debt.

The positions are centrally managed. Rate positions are reviewed quarterly and at the time of any new financing. Any substantial change in the rate structure is subject to prior approval by the Finance Department.

The cost of the Group's debt is sensitive to rate changes for all debt indexed on variable rates. The cost of the Group's debt is also affected by changes in the market value of financial instruments not documented as hedges under IAS 39. On the date of this Reference Document, none of the options hedges contracted by the Group are recognized as hedges under IAS 39, even though they offer an economic hedge (see Note 6.1 in Chapter 20.2).

As of December 31, 2008, the Group had a portfolio of hedge options (caps) that protects it against an increase in the euro, dollar and sterling short rates. Given the marked decline in all short rates during the 2008 fiscal year, almost none of the euro, dollar and pound sterling hedge options have been activated for the time being, with the consequence of variability being introduced into the cost of the corresponding debt, euro short rates, US dollars and pound sterling being lower than protected levels. However, the value of this hedge options portfolio appreciates when the short and long rates increase together and depreciates when they decline (see Note 15.1.3.2 in Chapter 20.2).

As of December 31, 2008, after taking account of financial instruments, approximately 58% of the Group's gross debt was at a variable rate and 42% at a fixed rate. Since almost the Group's entire surplus is invested short-term, as of December 31, 2008, 55% of net debt was at a fixed rate and 45% at a variable rate. The result of this distribution is to sharply limit the sensitivity to rate increases.

A 1% increase in short-term interest rates (uniform across all currencies) on the balance of net variable-rate debt, and the variable-rate portions of derivatives, would lead to an increase in net interest expense of €129 million. A decline of 1% in short-term interest rates would result in a drop of €131 million in net interest expense. The asymmetry of the impact is linked to the impact of the caps portfolio.

A 1% increase in interest rates (identical for all currencies) would generate a gain of €343 million on the income statement, associated with the change in fair-market value of undocumented derivatives or derivatives recognized for net investment hedging. Conversely, a drop of 1% in interest rates would generate a loss of €246 million. The asymmetry of the impact is associated with the caps portfolio, for which the loss is limited to the Mark-to-Market value posted to the balance sheet.

A uniform change of more or less than 1% in interest rates (identical for all currencies) would generate, in terms of shareholders' equity, a gain or a loss of €138 million associated with the change in fair market value of documented cash flow hedging derivatives.

#### 4.2.2.5 Counterparty risk

GDF SUEZ is exposed to counterparty risk in both its financial and operational activities.

In respect of its financial activities, GDF SUEZ has deployed counterparty risk management and control procedures based, on the one hand, on counterparties' accreditation in relation to their external ratings and objective market considerations (credit default swaps, stock market capitalization) and, on the other hand, on the setting of risk limits. With the aim of reducing the risk incurred, GDF SUEZ may also have recourse to contractual instruments such as standardized netting agreements or margin calls with its counterparties. In the wake of the financial crisis, the Group reinforced its control system in the second half of the year with daily monitoring of risk limits and weekly reporting to the Management Committee of the Group's principal financial counterparty exposures.

Control of counterparty risk associated with operational activities in the Group's Divisions has been strengthened by way of a second level control system managed by the Finance Department. As part of EMRC procedures, the Finance Department ensures quarterly monitoring of the Group's principal counterparty exposures.

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**4.2.2.6 Stock price risk**

As of December 31, 2008, the Group holds a number of equity interests in publicly-traded companies (see Note 14 in Chapter 20.2), the value of which fluctuate on the basis of trends in the world's stock markets. An overall decline of 10% in the value of

these securities would have an impact of about €107 million on the Group's earnings or shareholders' equity, depending on whether the decline is considered significant and long lasting. The Group's portfolio of listed and unlisted stocks is managed under a specific investment policy and is subject to regular reporting to management.

**4.2.3 CHANGING COMPETITIVE ENVIRONMENT FOR SEVERAL YEARS**

In its various activities, the Group is confronted with an increase in competitive pressure, from both major international operators and, in some markets from public and private sector niche players.

**4.2.3.1 Energy market deregulation increases competition in these activities**

Deregulation of the electricity and gas markets, both in Europe and the United States (see Section 4.2.5 for more information), has opened the door to new competitors, introduced volatility to market prices and called into question the viability of long-term contracts. It may also open up to competition certain distribution concession contracts currently held by GDF SUEZ.

In recent years, we have witnessed a trend towards concentration of the major energy players in Europe. In the gas sector, major producers are becoming interested in the downstream value chain and are entering into direct competition with established distribution companies, including those belonging to the Group. In France specifically, reciprocal competition with EDF on the gas and electricity markets is a sensitive issue, notably in terms of image, given its past as a joint "EDF-GDF" distributor. Furthermore, consumers now seek

to have a single energy provider, capable of proposing a combined gas and electricity offer.

Increased competitive pressure could have a significant negative effect on the Group's activities in terms of selling prices, margins and market share.

**4.2.3.2 Environmental services activities confronted with stiff competition**

In the Environmental Services sectors (Water and Waste Services), the Group's activities are also subject to strong competitive pressures from both local and international operators, resulting in pressure on selling prices to industrial and municipal customers, as well as a risk of non-renewal of major contracts as and when they expire. We are currently observing a trend towards consolidation of market players in Waste Services in Europe, particularly in the United Kingdom, Germany and the Benelux countries. Added to this, new forms of competition have appeared recently: aggressive strategies on the part of investment funds, the involvement of certain public sector operators and attempts by local authorities to regain control of such services, etc.

**4.2.4 CLIMATIC UNCERTAINTIES**

Energy businesses, especially those involved in sales to consumers are directly affected by climatic conditions and the "climate change" issue in general.

**4.2.4.1 Climatic conditions have a significant impact on results**

In the energy sector, major climatic changes (mainly in terms of temperature) from one year to the next can cause substantial swings in demand, with higher demand during the coldest years and lower demand during warmer ones. This factor is likely to have a direct impact on the Group's results.

**4.2.4.2 Measures taken at the national, European and worldwide level to combat climate change can impact the Group**

In the wake of the Kyoto Protocol and more recent agreements, the fight against climate change is becoming widespread and has resulted in the introduction of many regulatory texts in terms of environmental and fiscal legislation in France, Europe and at the international level (see Section 4.2.5 for further details). These moves could have a profound impact on the economic models adopted by the Group. For example, certain uses of gas and coal could be supplanted due to their carbon content. A distorted competitive situation could be created in the electricity sector via

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### 4.2 GDF SUEZ OPERATES IN A CHANGING ENVIRONMENT

exemptions, incentives and subsidies or by reducing margins via tariff squeezing. This would prevent the passing on of CO<sub>2</sub> quota costs to customers.

While these developments may have a negative impact on the Group's results, they also comprise their share of new business opportunities in renewable energy, nuclear energy, carbon storage, and energy efficiency services. Accordingly, while the Group could extend its scope of development, it will also have to confront a new form of competition.

The introduction, from 2005 onwards, of a market for trading greenhouse gas emissions rights in Europe (EUETS<sup>(1)</sup>), coupled with national CO<sub>2</sub> quotas allocation plans creates volume and price risks on these quotas for the entire energy sector. However, the scheme does create arbitrage and trading possibilities for the industry's most advanced players, including GDF SUEZ. Approximately 200 of the Group's European sites participate in this CO<sub>2</sub> quotas allocation system.

Finally, the Group is working to limit "climate" risks through active monitoring and diversification of its energy portfolio. For the medium term, efforts are converging to boost the share of low carbon energy sources (natural gas, nuclear, renewable energy) in the global energy mix, improve the capture of biogas from waste storage sites, and harness the energy produced by waste incineration, landfills and anaerobic sludge treatment facilities as renewable energy. This policy does not exclude maintaining, upgrading or even increasing the coal-fired power station fleet where this course of action is justified by economic and political circumstances.

For the long term, the Group seeks to diversify its energy sources and is already developing a demonstration program to capture and isolate carbon dioxide emissions in order to make it feasible to maintain its coal facilities in the context of tougher carbon emission restrictions.

### 4.2.5 CHANGING REGULATORY ENVIRONMENT

The legal and regulatory landscape for the Group's businesses is undergoing transformation, in terms of both environmental issues and energy sector (de)regulation.

#### 4.2.5.1 Tougher sustainable development requirements could mean even more stringent environmental legislation

The Group's activities are also subject to a large number of laws and regulations concerning respect for the environment, health protection, and safety standards. These texts govern air quality, greenhouse gases, waste water treatment, drinking water quality, hazardous and household waste treatment, soil contamination and the management of nuclear facilities, gas transport networks, storage facilities and LNG terminals.

A change in regulations, or more stringent regulations, could generate additional costs or investments for the Group, which it cannot guarantee recovering through sufficient additional revenues. Following such changes or stricter regulations, the Group may have to cease an activity, without any assurance that it will be able to offset the associated costs. Finally, regulations imply investments and operating expenses not only by the Group, but also by its customers, and particularly by local government concessionaires, primarily due to compliance obligations.

On the climate change management front, the European Commission has opened a debate about measures aimed at cutting

the Union's greenhouse gas emissions by 20% and final energy consumption by 20%, and renewable energy accounting for 20% of final energy consumption by the year 2020 compared with the 1990 level. On January 23, 2008, the Commission notably proposed a draft directive on renewable energy and a draft revision to the directive 2003/87 relating to the European quota trading scheme; the European Parliament and the Council of Ministers adopted the "energy-climate" package end 2008. In France, the Environment summit (*Grenelle de l'environnement*) has picked up the challenge of this ambitious project and even added to it.

Among the new regulations introduced in 2008, the European Commission's technical regulations on fluoride greenhouse gases, implementation of REACH regulations on chemical products and the new framework directive on waste (2008/98) are all examples of the ad-hoc tightening of regulations with impacts on some Group activities. More generally, the directive relating to criminal liability for environmental protection (2008/99) of November 19, 2008 constitutes a harmonized requirement for strict implementation of environmental protection policies across all of the Group's European sites.

Beyond contractual precautions negotiated on a case by case basis, the Group works to limit all of these risks, principally as part of an active environmental protection policy (see Section 6.6.2.4, "Active Environmental Protection Policy") and by managing a comprehensive insurance program (see Section 4.6 "Insurance").

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(1) European Union Emission Trading Scheme, introduced in Directive 2003/87.



**4.2.5.2 The Group may not obtain the licenses or permit renewals required to continue its activities**

Continued performance of its activities assumes that the Group will obtain or renew various permits and licenses (concessions, Seveso sites, supply permits) from the relevant regulatory authorities. These authorization processes can be long, costly and sometimes unpredictable.

Moreover, the Group may be confronted with objections from the local population to the installation and operation of certain facilities (notably for operating nuclear, thermal and renewable energy power stations, liquefied natural gas terminals, gas storage plants, waste landfill sites and incinerators, waste water treatment plants), based on pollution and landscape deterioration concerns, or more generally on the invasion of their environment. This opposition can make it harder for the Group to obtain building permits or operating licenses or may lead to their non-renewal in the absence of exclusive rights, or even to a review of existing permits. In this respect, the Group may be faced with opposition proceedings lodged by environmental defense associations which may delay or prevent the operation or expansion of its activities.

Finally, official bodies that issue licenses and permits to the Group may introduce significantly tighter restrictions.

The Group's failure to obtain, or any delay in obtaining, licenses or permits, or the non-renewal, review or significant tightening of conditions attached to licenses and permits obtained by the Group, could have a negative impact on its activity, its financial situation, its results and its development prospects.

**4.2.5.3 Energy sector regulatory changes may impact the Group's strategy and profitability**

A great many aspects of the Group's activities, particularly the production, transmission and distribution of electricity, the operation and maintenance of nuclear facilities, the conveyance and distribution of natural gas and liquefied natural gas (LNG), water management, waste collection and treatment, are subject to stringent regulations at the European, national and local levels (competition, licenses, permits, authorizations, etc.). Regulatory changes may affect operations, prices, margins and investments and, consequently, the Group's strategy and profitability.

At both the European and national level, plans to introduce regulatory changes are under way which pose a direct threat to GDF SUEZ business model and risk profile. In particular, and for the short term, the main changes are to be found in the third European directive on the internal market for natural gas. This directive could lead to ownership unbundling of gas transport network assets. The financial impacts of such changes will depend on the final terms of the directive and on its conditions of transposition.

In addition, in some EU member states, and at the European level, a desire for a return to, or the emergence of, state intervention in the energy sector is rearing its head via the regulation and the extension of market regulators' prerogatives in the area of competition. In particular, these moves can appear via price controls, the continued existence or the intent to reintroduce regulated tariffs for both gas and electricity at levels incompatible with procurement or production costs, discriminatory measures such as "windfall taxes" on energy operators' profits, the ring-fencing of provisions accrued for dismantling nuclear power stations, regulator intervention in the deregulated market to encourage increased competition or the intent to regain control of services on the part of local authorities.

It is impossible to predict all regulatory changes despite the monitoring systems put in place. However, the Group is diversifying this risk by operating its principal businesses in different countries equipped with their own regulatory systems. Furthermore, and in contrast, some regulatory changes offer new market opportunities for the Group's activities.

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**4.3 THE GDF SUEZ BUSINESS MODEL IS SUBJECT TO NUMEROUS CONSTRAINTS**

**4.3.1 SHORT- AND LONG-TERM ENERGY PURCHASES**

**4.3.1.1 The Group is engaged in long-term “take-or-pay” gas procurement contracts with minimum volume commitments**

The development of the Group’s gas activity in Europe is occurring to a large extent on the basis of long-term “take-or-pay” contracts. According to these contracts, the seller commits on a long-term basis to serve the buyer, in exchange for a commitment on the behalf of the buyer to pay for minimum quantities, whether or not they are delivered. The minimum amounts can only vary partially depending on weather contingencies. However, these commitments are subject to protective (force majeure) and flexibility conditions.

A major proportion of the Group’s contracts are of the “take-or-pay” type in order to guarantee availability of the quantities of gas required to supply its customers in future years. Regular price revision mechanisms are included in the long-term contracts to guarantee competitive gas prices to the buyer on the final market. In the event of the purchased gas losing its price competitiveness, GDF SUEZ would only be exposed to the “take-or-pay” risk on the quantities purchased prior to the following price revision date.

**4.3.1.2 The Group is dependent on a limited number of suppliers in some activities, notably for natural gas purchases**

To secure its gas supplies, the Group has concluded long-term contracts with its main suppliers, with the assurance of a

broadly-diversified supply portfolio, notably in geographic terms. The Group also benefits from flexibility and modulation (flexibility of long term contracts, considerable storage and regasification capacities, and purchasing on markets). Nevertheless, if one of the Group’s major suppliers were to fail over an extended period for any reason whatsoever (geopolitical, technical, financial), the cost of replacing the gas and conveying it from an alternative location could be substantially higher and would affect the Group’s margins, at least over the short term.

In addition, for managing water treatment plans, thermal power stations or waste treatment plants, Group companies may depend on a limited number of suppliers for their supplies of water, household waste, various fuels and equipment. For example, the market for turbines and foundry parts for electrical power plants is, by nature, oligopolistic and will be particularly tight over the coming years.

Any interruption in supplies, any supply delay or any failure to comply with the technical performance guarantee for a piece of equipment, even if caused by a contractual breach on the part of a supplier, could impact the profitability of a project, despite the protective contractual safeguards put in place.

The variety of the Group’s businesses and their diverse geographic locations result in a broad range of situations and provide partial protection against the risk of failure of a major supplier.

**4.3.2 IMPORTANCE OF REGULATED MARKET SALES**

**4.3.2.1 The Group is dependent on a limited number of customers in certain activities, notably in electricity sales and water concessions**

Whether in the energy or the environmental sector, some of the Group’s subsidiaries have signed contracts, particularly with public authorities, where performance may depend on just a few customers, or even a single customer. Moreover, these are often

long-term contracts, running for up to 30 years, or even longer. This is the case, for example, for delegated water management agreements or certain electricity production and sales activities with medium- and long-term energy purchase agreements (“power purchase agreements”), or even for household waste incinerator management contracts.

The refusal or the inability on the part of a customer to meet its contractual commitments, particularly in the area of tariff adjustments, may compromise the economic balance of such

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4.3 THE GDF SUEZ BUSINESS MODEL IS SUBJECT TO NUMEROUS CONSTRAINTS

contracts and the profitability of any investments possibly made by the operator. If the contracting parties fail to meet their obligations, despite contractual provisions for this purpose, it may not always be possible to obtain full compensation. This could impact the Group's revenues and results. The Group has encountered such situations in the past, particularly in Argentina.

The variety of the Group's businesses and their diverse geographic locations result in a broad range of situations and types of customers (industries, local municipalities and individuals). The Group considers that no relationship exists binding it to a client for which termination would have a significant impact on the Group's financial situation and results.

**4.3.2.2 A major share of Group sales is based on regulated, administered or controlled tariffs, the principles of which may not be adhered to by the authorities**

In France, a portion of the Group's energy and services sales is conducted within the framework of administered tariffs subject to regulations. French laws and regulations and European legislation, as well as rulings by regulation bodies (particularly the Commission for

Energy Regulation (CER) for access tariffs to certain infrastructure), may affect the Group's sales, profits or profitability due to:

- only partial pass-through on of procurement costs in natural gas sales tariffs (as the current tariff does not reflect costs, the cumulative impact for the Group at the end of 2008 was €1,606 million as explained in Section 6.1.3.1 of this Reference Document);
- consumer protection measures;
- only partial pass-through on of costs in gas infrastructure access tariffs;
- introduction of a transitional market adjustment regulated tariff.

Administered tariffs also apply in the consumer, even industrial energy distribution and sales activities in countries such as Italy, Hungary, Romania, Slovakia and Mexico.

**4.3.3 DEVELOPMENT MAINLY IN EUROPE, BUT ALSO IN OTHER COUNTRIES AROUND THE WORLD**

**4.3.3.1 A growing share of the Group's activities and gas supplies comes from countries presenting a higher political and economic risk than domestic markets**

While the Group's activities are mainly concentrated in Europe and North America, which together accounted for 90% of consolidated revenues and capital employed in 2008, the Group also conducts business on worldwide markets, notably in emerging countries such as Brazil and China. In the same vein, a significant share of gas supplies and exploration-production business comes from countries such as Russia, Algeria, Egypt and Libya.

The Group's activities in these countries comprise a certain number of potential risks, particularly in the areas of GDP volatility,

economic and governmental instability, modifications to regulations or their imperfect application, nationalization or expropriation of privately-owned assets, payment difficulties, social unrest, major fluctuations in interest rates and exchange rates (devaluation), taxes or associated contributions levied by governments and local authorities, exchange control measures and other unfavorable interventions or restrictions imposed by governments. In addition, the Group could be unable to defend its rights before the courts in these countries in the event of a dispute with the government or other local public entities.

The Group manages these risks within partnerships or contractual negotiations adapted to each location. It chooses its locations in emerging countries by applying a selective strategy on the basis of an in-depth analysis of country risks. Whenever possible, the Group protects its interests contractually by way of international arbitration clauses and political risks insurance.

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## RISK FACTORS

### 4.3 THE GDF SUEZ BUSINESS MODEL IS SUBJECT TO NUMEROUS CONSTRAINTS

#### 4.3.3.2 Any external growth transaction presents risks for the Group

In the case of external expansion, notably by means of acquisitions, the Group could be led to issue equity securities, have recourse to borrowings or recognize allowances for intangible asset impairment. Acquisitions also present risks relative to integration difficulties, non-achievement of expected benefits and synergies, involvement of managers of the acquired companies and the departure of key employees. Moreover, in the context of joint companies in which it has an equity holding, the Group may find itself in a conflict of interest or conflict of strategy situation with its partners who, in some cases, hold the majority interest in these ventures. Risks linked to the value of assets or expected income may appear at the end of the acquisition process.

#### 4.3.3.3 Organic growth transactions and major projects require control

The Group is basing its growth on various major industrial asset construction projects, such as gas and electricity plants or waste treatment and seawater desalination facilities. The Group has just been chosen, as a partner with EDF, to build the second EPR type nuclear reactor at Penly, in France.

The service life of such assets lasts several decades and their profitability depends greatly on cost control and construction times, operational performance and changes in the long-term competitive climate, which might negatively affect the profitability of certain assets or lead to a loss of revenues and impairment charges.

#### 4.3.3.4 The Group's development in certain countries may be hampered by legislation

For reasons of reciprocity, some EU member States may introduce provisions to prohibit, under certain conditions, companies such as GDF SUEZ and its subsidiaries from participating in calls for tenders for the granting of gas or water distribution or local public service concession contracts.

#### 4.3.3.5 Some partnerships formed by the Group could be terminated

The Group develops its operations in partnership with local authorities or with private local operators.

These partnerships constitute one of the means for the Group to share the economic and financial risks inherent in certain major projects, by limiting its capital employed, and by ensuring that it adapts better to the specific local market features. In addition, such partnerships may be required by the local regulatory environment. The partial loss of operational control is often the price that must be paid to reduce exposure in terms of capital employed, but this situation is managed contractually on a case-by-case basis.

However, any change in the project, the local political and economic context, or even in the economic position of a partner, may lead to the end of that partnership, particularly through the exercise of put or call options among the partners, a request to dissolve a joint venture by one of the partners or the exercise of a right of first refusal.

Such situations may also lead the Group to decide to increase its financial commitments to certain projects or, in the case of a conflict with a partner or partners, to seek solutions in the competent courts or via arbitration bodies.

#### 4.3.3.6 The Group runs risks due to its design and build activities

In the areas of energy, services and the environment, the Group is involved in certain facility design and build contracts, notably through specialized subsidiaries such as Tractebel Engineering and Degrémont.

Even though these projects are also subject to in-depth studies and the Group benefits from acknowledged expertise, the risk of non-compliance with construction deadlines cannot be excluded. As a consequence, the Group may suffer penalty charges and/or higher than originally forecast construction costs, and the facilities' performance may not comply with the specifications. These factors could have a negative impact on its financial situation, results and outlook.

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## 4.4 INDUSTRIAL SAFETY AT THE HEART OF GDF SUEZ'S ACTIVITY

The Group operates in areas of activity that include major industrial risks capable of resulting in damage to property and people (employees, sub-contractors, neighboring residents, consumers and third parties) and of exposing it to claims for civil, criminal and environmental liability. These risks may concern facilities belonging to the Group or managed by the Group on behalf of third parties (manufacturers, local authorities). These risks are the subject of

in-depth monitoring and special investments and, in the main, are covered by insurance policies, notably in terms of the Group's third party liability coverage. However, in the event of a major incident, certain limitations on these insurance policies would offer insufficient coverage for liabilities incurred, as well as loss of revenues or increased expenditure (refer to Section 4.6 "Insurance").

### 4.4.1 THE GROUP OPERATES BUSINESSES WITH RISKS OF INDUSTRIAL ACCIDENTS AND INTERRUPTIONS TO CUSTOMER SERVICE CONTINUITY

The Group manages its industrial businesses in accordance with a regulatory framework that includes safety rules which form part of infrastructure operating procedures. Despite sustained vigilance in the design, building and operation of its projects, it is not possible to prevent all accidents which might disrupt the Group's activities or generate financial losses or substantial liabilities.

Risks exist in relation to operating gas transport and distribution systems, gas storage facilities, exploration-production facilities, LNG tankers, re-gasification facilities, electricity power plants, co-generation facilities or energy services, waste incinerators, water networks and water treatment facilities. These risks relate to operating incidents, design faults or external events beyond the Group's control (third party actions, landslides, etc.). These incidents are capable of causing injuries, loss of life, major material

and environmental damage as well as activity interruption and operating losses.

The unavailability of a major structure such as an LNG terminal or storage facility, a long lasting political crisis between production and transit countries, the loss of control of a manufacturing resource or a bottleneck due to changes in gas movement schedules or natural catastrophes (earthquake, volcanic eruption, flooding) could cause a halt to gas deliveries across a large territory with loss of revenues and concomitant claims for compensation, as well as a negative impact on the Group's image and/or breaches to a public service obligation. This type of risk is also present to varying degrees within the Group's electricity and water supply activities.

### 4.4.2 THE GROUP OWNS FACILITIES WITH RISKS OF POLLUTION TO THE SURROUNDING ENVIRONMENT

Facilities owned by the Group or managed on behalf of third parties, comprise risks of damage to the natural environment (air, water and soil) and may present health risks to consumers, neighboring residents, employees or even sub-contractors.

These public health and environmental risks are governed by strict national and international regulations and are subject to regular inspections on the part of specialized Group teams and public bodies. These evolving regulations themselves essentially constitute a risk with regard to assessing the company's vulnerability both in terms of public health and environmental liability. This vulnerability is assessed for sites currently being operated, as well as for older facilities (such as closed landfills or decommissioned gas plants) and

may also concern assessments of damage caused to, or attacks on, habitats, fauna and flora.

In the context of its business, the Group handles and even generates products and sub-products of a hazardous nature. For example, this is the case with fissile material, fuels and some chemical products used especially for water treatment. In the area of waste management, some of the Group's activities specialize in treating hazardous industrial or medical waste that may be of a toxic or infectious nature.

Depending on the activities, gaseous and atmospheric pollutants to be considered are greenhouse gases, gases that stimulate air

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### 4.4 INDUSTRIAL SAFETY AT THE HEART OF GDF SUEZ'S ACTIVITY

acidification, toxic gases (including chlorine), and dust and bacteria (including Legionnaires' disease bacteria).

In the absence of adequate facilities management, the Group's activities may have an impact on water present in the natural environment: leaching from poorly controlled landfill facilities, diffusion of heavy metals into the environment or watery waste from incineration facility smoke processing systems. These various types of emissions could lead to water table or water course pollution. The risks may also relate to soil pollution in cases of accidental spills resulting from the storage of hazardous products or liquids or leaks in processes involving hazardous liquids, as well as the storage and spreading of treatment sludge.

Various mechanisms are deployed to ensure control of the above-mentioned risks. The sharing of responsibilities between parties in

these areas, in terms of risk management and financial liabilities, is clearly defined by legislation and in contracts governing the Group's operations. However, non-compliance with standards may lead to contractual financial penalties or fines.

There is a risk that accrued provisions, insured or guaranteed amounts may prove insufficient in the event of claims against the Group for environmental liability, given the uncertainties inherent in forecasting expenditure and liabilities associated with health, safety and environmental protection.

Consequently, if the Group's liability is called into question due to environmental and industrial risks, it could have a significant negative impact on its image, business, financial situation, results and outlook.

#### 4.4.3 THE GROUP OPERATES SEVERAL INDUSTRIAL FACILITIES IN EUROPE CLASSIFIED AS SEVESOS SITES ("HIGH THRESHOLD")

Within the boundaries of the European Union, the Group manages around forty Seveso sites, including 12 Seveso sites classified as "high threshold" in Belgium, Hungary, the Netherlands, Germany and Spain. These are mainly LNG (Liquefied Natural Gas) terminals, underground gas storage plants, LPG (Liquefied Petroleum Gas) stations, thermal power plants and hazardous waste treatment sites. These sites are subject to the directive 2003/105, known as the

"Seveso" directive, governing the storage of hazardous products. The Group conducts a policy to prevent major accidents. This policy guarantees a high level of protection for its facilities in terms of risks to human life and the environment. This risk prevention policy is described in Section 6.6.2.4 "Active Prevention of Environmental Risks" of this Reference Document.

#### 4.4.4 THE GROUP OPERATES SEVERAL NUCLEAR POWER PLANTS IN BELGIUM

The Group owns and operates two nuclear power plants in Belgium at Doel and Tihange. While these sites, which have been operating since 1975, have never experienced any incidents resulting in a danger to employees, sub-contractors, the general population or the environment, this type of activity could present civil liability risks for the Group.

The personnel responsible for the operational activity on the sites hold special certifications obtained at the end of a specific program of both theoretical and practical training, including simulator exercises. Compliance with safety rules and conditions at the facilities are subject to inspections by an independent agency (AVN) and by a government agency responsible for nuclear safety (AFCN).

Nuclear plants operators share their experience at the international level and submit to audits (World Association of Nuclear Operators - WANO - or the International Atomic Energy Agency - IAEA) in order to maintain a high degree of safety. In 2007, a team of 15 experts from the IAEA conducted an in-depth audit of the safety procedures and systems in place at the Tihange plant. This audit, known as an OSART Operational Safety Review Team, resulted in

a positive verdict in respect of the safety levels of the Tihange plant and was confirmed by the follow-up audit at the end of 2008. In fact, the Tihange plant received one of the best international scores. The Doel power plant will undergo the same audit in 2010, with a currently favorable prognosis in terms of results. This assessment by an independent international authority confirms the priority placed on safety at our nuclear plants. Moreover, all nuclear sites are ISO 14001 and certified by the Eco-Management and Audit Scheme (EMAS). The Group regularly monitors and reduces the volume of low and medium radiation level waste produced during operations. All nuclear waste management is under the responsibility of the Belgian public agency, National Agency for Radioactive Waste and Enriched Fissile Materials (ONDRAF). This is also the case for the vitrified waste coming from the spent fuel reprocessing programs operated at the Areva NC site in The Hague. Spent nuclear fuel is stored at the power production sites pending a political decision on the choice of the fuel cycle downstream process (recycling or not).

Costs pertaining to the management of spent fuel are included in the costs of electricity production from nuclear sources, and are the subject of provision accruals (see Note 17.2.3 in Chapter 20.2

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of this Reference Document). In addition, the Group accrues other provisions for facilities dismantling costs (see Note 17.2.2 in Chapter 20.2 of this Reference Document). The Belgian Law of April 11, 2003 clearly defines the rules for using and monitoring the amounts provisioned for the Belgian plants.

If the provisions of the Belgian law adopted in January 2003 on the progressive withdrawal from nuclear energy for the purpose of electrical production were effectively applied, it could result in a loss of revenues proportional to the length of the scheduled technical

life of the plants as of the date of the first effective closing (2015). The political debate in Belgium on this issue has recently restarted in the run up to regional elections in 2009. Several political parties have voiced their support for extending the operating life of existing nuclear plants, along the same lines as recent decisions in Sweden. Elsewhere, and mainly in Europe, the Group is bidding for build and operate contracts for new nuclear power plants. Accordingly, the number of sites and the variety of nuclear reactor types operated could be increased.

#### 4.4.5 PETROLEUM GAS EXPLORATION-PRODUCTION ACTIVITIES COMPRISE CERTAIN SPECIFIC RISKS

Exploration-production activities require high investments and are exposed to specific risks. In order to reduce their impact, the Group conducts its activities as a member of consortia, in which it may act as an operator or simply as a partner.

During the exploration phase, the main risk is geological and may result in a discovery of a lower than expected level, or even a zero level, of hydrocarbons.

In the production phase undertaken when hydrocarbon reserve estimates and economic analyses justify the development of a discovery, it may occur that revised reserve estimates fall short of forecasts and compromise the oilfield's overall economic balance.

Exploration-production activity is also exposed to other risk factors, such as:

- poor weather conditions that can lead to drilling delays and increased costs;

- dependency vis-à-vis third party partners, notably when the Group is not the operator;
- specific regulatory and administrative constraints such as the imposition of special obligations in terms of drilling and operations, environmental protection measures, exceptional cases of nationalization, expropriation or cancellation of contractual rights or regulatory changes relative to site dismantling and decontamination obligations;
- changes with a fiscal impact such as royalties or customs duties levied on hydrocarbon production and finally, corruption or the risk of fraud encountered in certain countries.

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## RISK FACTORS

### 4.5 THE GDF SUEZ ORGANIZATION IN THE FACE OF TRANSVERSAL RISKS

## 4.5 THE GDF SUEZ ORGANIZATION IN THE FACE OF TRANSVERSAL RISKS

### 4.5.1 ETHICS AND COMPLIANCE

**Any act perpetrated by an individual or in collusion with others in violation of the Group’s rules and codes of conduct could have a severe impact on business continuity.**

The competent regulatory agencies have broad prerogatives and powers in the area of energy and environmental services, which cover issues related to ethics, money laundering, respect for personal privacy, data protection, and the fight against corruption. Furthermore, it is difficult to predict the date of entry into effect or the form of new regulations or enforcement measures. Any change to current energy and environmental protection regulations could have a significant impact on the Group’s activities, and on its products and services and the value of its assets. If the Group does not succeed, or appears not to succeed, in satisfactorily complying with such changes or enforcement measures, its reputation could be affected, and the Group could be exposed to additional legal risks. This could result in an increase in the amount and number of claims and applications for compensation filed against the Group and expose the Group to compulsory enforcement measures, fines and penalties.

Despite the Group’s efforts to comply with applicable regulations, a large number of risks remain, due mainly to the imprecise drafting of certain regulatory provisions, the fact that regulatory bodies can alter their application instructions and the possibility of jurisprudence rulings being overturned. Regulatory agencies and legal bodies have the power to initiate administrative or legal proceedings against the Group which could notably result in the suspension or revocation of one or more permits or licenses held by the Group, in injunctions to cease or desist from certain activities or services, fines, civil penalties, criminal convictions or disciplinary sanctions, which would materially and negatively impact the Group’s activities and financial position.

In this area, as soon as it was formed, the Group put in place an ethics and compliance system based on systems previously deployed in the two former Groups. The Group is determined to scrupulously abide by all regulations and particularly those relative to preventing and combating all forms of fraud. However, isolated acts in contravention of the Group’s stated principles on the part of employees, mandated agents or representatives could expose it to criminal and civil sanctions, and to a loss of reputation.

### 4.5.2 LEGAL RISKS

**The Group faces legal risks in the conduct of all its activities in its global markets.**

Legal risks arising from the legal and regulatory context, operational activities, partnerships in place, and contracts concluded with customers and suppliers are discussed in the relevant sections of

this Chapter 4. Significant disputes, procedures and arbitration to which the Group is a party are described in Section 20.7 of this Reference Document.

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4.5.3 RISKS RELATED TO HUMAN RESOURCES

**4.5.3.1 The Group could encounter difficulties in acquiring the expertise required to implement its strategy, at the right time and in the right place**

The Group conducts its activities across a broad spectrum of businesses that call for a wide variety of skills. Demographic ageing affects the Group in general and several of its technical expertise lines in particular. A major renewal of skills within the Group will be necessary over the forthcoming years. To avoid a loss of key skills, the Group is acting in anticipation of labor shortages in certain activities. The GDF SUEZ Group is working actively to enhance its attractiveness as an employer by deploying targeted policies, developing transversal mobility and the benefits of belonging to a Group, and by putting in place appropriate reward systems that make the Group a benchmark employer.

In addition, the Group's international growth has consequences in terms of changes in activities that call for new expertise and extensive personnel mobility, notably on the part of managerial staff. To mitigate this risk, the Group places special value on international experience in terms of career prospects.

**4.5.3.2 The Group could encounter difficulties in the labor relations area**

The post-merger context has required the Group to enter into new collective bargaining agreements at a time of major financial and economic crisis. At the same time, consolidation for both the Gaz

de France and SUEZ Groups is progressing, at the level of both employees and trade union organizations.

In addition, the Group has sought to rapidly give meaning to employee/employer consultations by embarking on negotiations to form a European Works Council to represent the new Group, as well the Group Committee. Negotiations are currently under way aimed at developing and reinforcing European and French social dialogue, guaranteeing balanced representation among the countries and the Group's major businesses and developing social dialogue at the level of these major businesses. In parallel with these initiatives, dialogue is still being maintained with the former Group's consultative bodies to avoid any breakage in the consultation and social dialogue chain.

This wish for social dialogue has been an integral part of organizational restructuring projects, the conditions for changes due to consolidation and social support for employees within the new Group. In this context, it is worthwhile mentioning the agreement on employee guarantees signed by the French trade unions (CFDT, CGT, CFE-CGC and CGT-FO) to cover the scope of the parent company, GDF SUEZ SA. This agreement provides for the deployment of a support system for employees who could be subject to functional and/or geographic mobility and/or a change of workplace without moving residence, as part of the merger process.

In the event of stalled negotiation processes, increased wage claims over purchasing power erosion in the current economic crisis or involvement in a broader labor conflict, the social climate within the Group could deteriorate and have a negative impact on productivity at certain sites and consequently on the Group's results.

4.5.4 RISKS RELATED TO HEALTH & SAFETY AND THE PROTECTION OF CORPORATE ASSETS

**4.5.4.1 Workplace health and safety**

**Strict prevention measures are in place to limit risks of damage to employee and sub-contractor staff health.**

Some employees or sub-contractors may be exposed to products harmful to health (e.g.: organic solvents, asbestos, refractory ceramic fibers) or be accidentally contaminated by micro-organisms such as Legionnaires' disease bacterias. The corresponding risks are subject to strict prevention measures.

Furthermore, the risk of a pandemic of the avian flu type has been included in prevention plans, either through the deployment of special prevention plans adapted to each entity, or through awareness training on the need to deploy business continuity plans.

**In terms of workplace safety, the Group has invested in resources to improve on the already evident reduction in workplace accidents.**

The Group's entities and subsidiaries implement prevention and protection measures to ensure the safety of their employees and their sub-contractors in the workplace (e.g.: Accident Prevention Plan).

Furthermore, GDF SUEZ is firmly committed to the goal of reducing workplace accidents and of continuing, and improving on, the marked downward trend in the number of accidents observed over these past years.

**Group senior management and Group entities work closely together to ensure coherent management of Health & Safety and Corporate Asset Protection policies.**

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4.5 THE GDF SUEZ ORGANIZATION IN THE FACE OF TRANSVERSAL RISKS

As an addition to the risk management practices deployed in the various activities, in 2008, the Group set up a Health & Safety Management System department that provides uniform transversal management within the Group of risks associated with employees', sub-contractors' and third parties' health and workplace safety, industrial safety and the protection of tangible and intangible corporate assets. This department manages the Group's "Health & Safety and Corporate Asset Protection" network.

4.5.4.2 Employee security

The security situation, already marked by acts of terrorism, radical movements, armed conflicts, organized crime, pandemics and even climate change could become even more strained due to the worldwide repercussions of the current financial crisis.

At the same time, the legal context has also become more stringent as illustrated by the adoption in France of new provisions in the Defense Law Code with the Law of December 12, 2005 and its application decree of February 23, 2006. This law requires critical infrastructure operators to participate in the fight against all types of threats, and notably against the terrorist threat. Similar provisions have been adopted at the European level with the Council directive 2008/114 dated December 8, 2008 that "concerns the inventory and classification of critical European infrastructures as well as the assessment of the need to improve their protection".

Finally, jurisprudence considers that risks associated with terrorism for example cannot be considered as cases of force majeure insofar as the employer is aware, or should be aware, of the dangers to which its personnel is exposed in an at-risk area.

The systems in place are based on the coordination and centralization of safety measures for the Group's expatriate and seconded employees to deal with the emergence of threats of all types to which they may be exposed. This mission is entrusted to the Security department that operates as part of the GDF SUEZ Security Network (GSSN) international network that includes head office, the Business lines and business units. To achieve this mission, the GSSN may rely on specialized external suppliers in both the

health and security sectors. The GSSN has also developed close ties with the relevant Government departments, specifically the Ministries of Foreign Affairs and Defense. Finally, in addition to being involved in maintaining a "country watch list" the GSSN participates actively in the work performed by recognized inter-professional bodies such as, for example, the *Centre Interprofessionnel de l'Expatriation* (CINDEX) or the *Club des Directeurs Sécurité des Entreprises* (CDSE).

4.5.4.3 Corporate asset protection

Sensitive sites are subject to special protection measures. The recent emergence of transnational risks relative to terrorist activities or armed conflicts for example, has led the Group to protect its sensitive sites from any possible malevolent act.

The protection system is based on risk assessment that leads to the deployment of relevant protection measures at the sites.

The purpose of intangible asset protection is to cover risks to sensitive information relative to the Group's activities in terms of possible theft, malevolent acts, corruption, industrial espionage or pirating.

Intangible asset protection systems are deployed in relation to the specific features of each entity through compliance with sensitive data protection rules. More generally, intangible asset protection is managed through a Group network tasked with the implementation of preventive actions as a result of security audits.

4.5.4.4 Crisis management

GDF SUEZ has organized its crisis management system at different levels of management. This system takes account of the various types of crises (industrial, human, media, financial, image, etc.) likely to affect the Group. These management practices are updated by way of exercises and experience feed-back and take account of applicable requirements in certain countries and in certain activities.

4.5.5 RISKS RELATED TO INFORMATION SYSTEMS

The complex nature of the information systems inherited from the merger may be a temporary source of vulnerability for the Group

Information systems (IS) are of vital importance to support all the processes of the Group's activities. As these information systems are increasingly interconnected and transversal between activities, their failure could lead to a loss of business and data, or violations of confidentiality commitments.

Following the merger, the complex integration of the computing systems, applications and infrastructures of the former Gaz de

France and SUEZ entities, combined with the need to dismantle the IS components that were still linked to EDF could lead to undesirable short-term effects in terms of data security and smooth Group management process data flows. In addition to the deployment of short-term technical security measures, a vast information system convergence program was launched immediately after the merger with the setting up of shared service centers in order to overcome these potential problems.

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## 4.6 INSURANCE

The GDF SUEZ Insurance Department, whose management animates the internal network of specialists is composed of a central team whose members exercise a dual responsibility. They are in charge, on the one hand, in the insurance fields of Property (Material Damage and Loss of Profits), Employee Benefits, Liabilities, Automobile Insurances and Prevention, of the development, implementation and management of transversal programs and, on the other hand, as Branch Insurance Managers of the management of their Branch-specific programs and coverages.

For each one of these fields:

- the transfer of severity risks to the insurance market continues as often as possible;
- the optimization of the financing of hazard risks of low, or moderate amplitude, is largely based on self-insurance plans, either directly through deductibles and retentions or indirectly through the use

of consolidated captive tools, the commitments of which range from €500,000 to €25 million per loss, which represents on a cumulative basis, an estimated maximum loss of less than 1% of the ex-Groups GDF and SUEZ 2007 revenues.

The annual premium volumes (taxes included) for technical year 2007 and relating to the main risks transfer programs implemented by the ex-Groups GDF and SUEZ in areas of (A) asset protection (material damage and business interruption) and (B) third party claims (liability) amount respectively for (A) to approximately 0.20% and for (B) to about 0.10% of the cumulated ex-Groups GDF and SUEZ 2007 revenues.

## MAIN INSURANCE PROGRAMS

### Civil Liability

- A new D&O (Directors & Officers) Liability Program has been implemented with effect from the date of the merger covering the representatives of GDF SUEZ, its subsidiaries and that of its representatives in its participations.
- A new general Liability Program (including damage to the environment) has been subscribed to with effect from January 1, 2009 for the benefit of all the Branches of the Group with a total limit of €800 million, all damages combined. This program operates at the first euro, or in excess of the underlying coverages underwritten by certain divisions (usually with a capacity of €50 million).

### Nuclear Liability

In its role as operator of nuclear power plants in Doel and Tihange (Belgium), Electrabel's nuclear operator's liability is regulated by the Paris and Brussels conventions. These conventions have established an original system, derogatory from common law, inspired by the desire to provide compensation to victims and to encourage solidarity among European countries.

The nuclear liability falls exclusively on the operator of the facility where the nuclear accident occurs. In exchange for this strictly objective liability, the amount of compensation is capped up to a

maximum amount per accident and is limited in time to 10 years. Beyond this maximum amount, an additional indemnification mechanism has been established by the states signatory to the conventions.

The Belgian national law of ratification requires the operator to provide a financial guarantee or subscribe to civil liability insurance and Electrabel's insurance program conforms to this obligation.

### Material Damage

The GDF SUEZ branches have insurance covering the facilities owned and leased, or entrusted to them. However, grid systems of transmission and distribution are generally excluded from this coverage.

The main programs provide for coverages based either on total reported value, or on basis of contractual limits anyone loss. In the latter case, the limits are set on the basis of major loss scenarios in accordance with insurance market rules and may reach \$2 billion.

Business interruption and additional operating costs insurances, are subscribed on a case-by-case basis in function of the risk analysis performed taking account namely the existing emergency plans.

Construction projects are covered by « Erection All Risks » programs, subscribed by the project owner, project manager, or lead company.

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# 4

## RISK FACTORS

### 4.6 INSURANCE

In the nuclear field, the nuclear plants operated by Electrabel in Doel and Tihange (Belgium) are covered for material damage by the mutual insurance company: *Nuclear Electric Insurance Limited (NEIL/ONEIL)*.

The exploration and production activity mainly carried out offshore is covered by a specific insurance program tailored to the risks of this activity and in accordance with its practices.

#### Maritime Area (Marine Liability)

An insurance contract covers the transportation of LNG by gas tanker with a limit of €40 million per shipment.

Marine insurances cover ship-owner or charterer liability (unlimited, except for war risk up to \$500 million and pollution up to \$1 billion) and damage to ships up to their agreed value.

#### Employee Benefits

In accordance with legislation in effect and with business agreements, employee benefits programs covering against risk of accidents and medical expenses are developed at the level of the operational entities.

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## 5

## INFORMATION ON THE COMPANY

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**5.1 HISTORY AND DEVELOPMENT OF THE COMPANY**

GDF SUEZ (formerly referred to as Gaz de France) is the result of the merger of SUEZ (absorbed company) by Gaz de France (absorbing company), following the decision of the Combined

General Shareholders' Meeting of Gaz de France and SUEZ of July 16, 2008. The merger took effect on July 22, 2008.

**5.1.1 CORPORATE NAME AND NAME OF ISSUER**

The corporate name of Gaz de France has been GDF SUEZ since July 22, 2008 following the decision of the Combined General Shareholders' Meeting of July 16, 2008 which approved the merger of SUEZ with Gaz de France with effect from July 22, 2008.

**5.1.2 REGISTRATION**

GDF SUEZ (formerly Gaz de France) has been registered in the *Registre du commerce et des sociétés de Paris* (Paris Register of Commerce and Companies) since December 24, 1954 under number 542 107 651.

Its NAF code is 3523Z.

**5.1.3 INCORPORATION**

The Company was created as an *établissement public à caractère industriel et commercial* (public industrial and commercial establishment, or EPIC) on April 8, 1946 and became a *société anonyme* (limited liability company) on November 20, 2004.

The Company was created for a duration of 99 years starting on November 20, 2004. The term of the Company will end on November 19, 2103 unless dissolved earlier or extended.

**5.1.4 CORPORATE HEADQUARTERS - LEGAL FORM - APPLICABLE LAWS**

GDF SUEZ has its registered headquarters at 16-26 rue du Docteur Lancereaux – 75008 Paris – France.

Its telephone number is: +33 1 57 04 00 00.

GDF SUEZ is a *société anonyme* (limited liability company) with a board of directors subject to legal and regulatory provisions applicable to limited liability commercial companies and any specific laws governing the Company and its bylaws.

The specific laws governing GDF SUEZ are Law no. 46-628 of April 8, 1946 on the nationalization of electricity and gas,

Law no. 86-912 of August 6 1986 governing privatizations on privatizations, Law no. 2003-8 of January 3, 2003 on gas and electricity markets and energy public service, Law no. 2004-803 of August 9, 2004 on electricity and gas public service and electricity and gas companies, and Law no. 2006-1537 of December 7, 2006 governing the energy sector.

The Company's accounting period lasts 12 months starting on January 1 and ends on December 31 each year.

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### 5.1.5 SIGNIFICANT EVENTS

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#### History of the Creation of GDF SUEZ

Initially set up under Law no. 46-628 of April 8, 1946 on the nationalization of electricity and gas as an EPIC type company, the Company became a limited liability company under Law no. 2004-803 of August 9, 2004 on electricity and gas public service and electricity and gas companies, amending Law no. 46-628 of April 8, 1946, whose provisions were aimed at organizing the change in the Company's legal status.

On July 7, 2005, the Company publicly floated its shares on the stock market. The first listing of the Company's shares, under its former name, Gaz de France, occurred on July 7, 2005 and trading on Eurolist by Euronext Paris began on July 8, 2005. In compliance with Article 24 of Law no. 2004-803 of August 9, 2004 requiring the Government to hold at least 70% of the capital of Gaz de France, the Government held 80.2% of such capital at the end of this operation.

The Company joined the CAC 40 index on September 1, 2005 and the Dow Jones Stoxx 600 index on September 19, 2005.

Law no. 2004-803 of August 9, 2004, as modified by Law no. 2006-1537 of December 7, 2006 governing the energy sector, required henceforth that the Government hold more than one third of the

Company's capital, and Decree no. 2007-1784 of December 19, 2007 authorized the transfer of the Company from the public to the private sector.

On July 22, 2008, the Company absorbed SUEZ via a merger.

SUEZ was the result of the merger between Compagnie de SUEZ and Lyonnaise des Eaux in June 1997.

At the time, Compagnie de SUEZ, which had built and operated the SUEZ Canal until it was nationalized by the Egyptian government in 1956, was still a holding company with diversified equity investments in Belgium and France, mainly in the financial services and energy sectors. Lyonnaise des Eaux was a diversified company involved in water and waste management and treatment as well as construction, communications and the management of technical facilities. SUEZ became an international industrial and services group with the mission of responding to essential needs in electricity, gas, energy services, water and waste management.

The merger of SUEZ with Gaz de France led to the transfer to the private sector of the majority stake in the Company, now called **GDF SUEZ**.

For more detailed information in the history of the company and the significant events of 2008, see Section 6.3 below.

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# 5

## INFORMATION ON THE COMPANY

### 5.2 INVESTMENTS

## 5.2 INVESTMENTS

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### 5.2.1 PRINCIPAL INVESTMENTS

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In 2008, the Group's investments in property, plant and equipment and intangible assets totaled €10,498 million. Cash flows used in

investing activities are explained in Section 9.5.3 of this Reference Document.

### 5.2.2 MAJOR INVESTMENTS IN PROGRESS

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The Group's objective is an investment program of €30 billion for the period 2008-2010.

These investments will be made by the Group while it continues to observe financial discipline (and maintain over the medium term

both «Strong A» category rating and investment criteria), made for the most part in electrical production capacities, from renewable and classic forms of energy, primarily in Europe, Latin America and North America.

### 5.2.3 MAJOR INVESTMENTS PLANNED BY THE ISSUER

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See Section 6.1.2 below.

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# 6

## OVERVIEW OF ACTIVITIES

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## 6.1 MAIN ACTIVITIES

### 6.1.1 ACTIVITIES – AN OVERVIEW

#### 6.1.1.1 Profile

GDF SUEZ has a presence across the entire energy chain, in electricity and in natural gas, every step of the way, including:

- purchase, production and commercialization of natural gas and electricity;
- transport, distribution, management and development of major natural gas infrastructures;
- design and commercialization of energy services and environment-related services.

GDF SUEZ has a balanced profile thanks to its presence in complementary businesses across the energy value chain and in regions with varying circumstances.

Thanks to the industrially and geographically complementary nature of the two merged Groups, SUEZ and Gaz de France, GDF SUEZ holds a leading position in the European and global energy landscape.

The Group boasts high-performing energy businesses and a significant degree of convergence between natural gas and electricity activities; it is backed by solid assets that combine expertise, a balanced energy mix, natural gas/electricity convergence and a global presence. It features a diversified supply portfolio and a

flexible, high-performing electricity generation system that is capable of proposing innovative energy solutions to private individuals, communities and companies.

GDF SUEZ is a utility at the heart of Europe that benefits from a flexible, diversified energy mix and founds its development on partnership and world-class leadership:

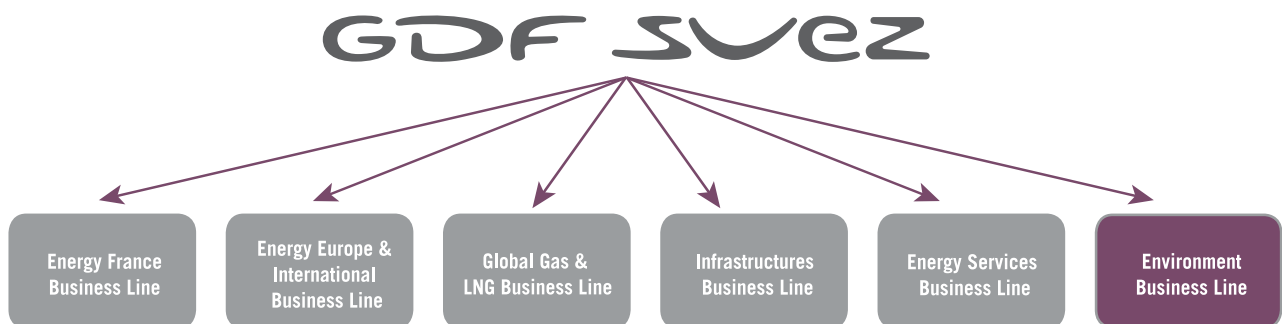
- the Group is Europe's largest buyer and importer of LNG, the largest LNG importer in the United States, the largest supplier in the Atlantic Basin and Europe's second largest LNG terminal operator;
- in independent electricity generation, the Group is the number one private producer in Brazil, Thailand and the Gulf States; and the second in Peru and in Panama;
- in energy services, the Group is Europe's leading supplier of multi-technical services.

In environment, SUEZ Environnement Company, 35.5%-held by GDF SUEZ, offers services and facilities that are essential for life and for environmental protection in the areas of water (from catchment to natural restoration) and waste (collection, incineration and recycling), for public communities and private-sector customers in more than 25 countries. SUEZ Environment Company is the world's second-leading water operator and the third-leading waste operator.

#### 6.1.1.2 Organization and key figures

##### 6.1.1.2.1 Organization

GDF SUEZ is organized into five energy Business Lines and one environment Business Line.



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In France, the **Energy France Business Line** supplies natural gas and electricity, produces electricity and provides energy services to private individuals.

The **Energy Europe & International Business Line** (which is divided into three geographic divisions: Benelux-Germany, Europe, International) distributes electricity outside France and distributes and supplies natural gas, electricity and associated services outside France.

The **Global Gas & LNG Business Line** is in charge of natural gas and oil exploration and production, natural gas and LNG supply and shipping, energy trading and supply to large accounts in Europe.

The **Infrastructures Business Line** builds and operates large natural gas transport infrastructures in France, Austria and Germany,

regasification terminals in France and Belgium, and distribution networks in France. It also manages storage activities in France and abroad.

The **Energy Services Business Line** manages urban networks in France and abroad, manages energy, industrial and service facilities and provides a full range of multi-technical services.

**SUEZ Environment Company** provides services related to water, sanitation and waste management as well as water treatment engineering.

GDF SUEZ also has support divisions (Center), which are responsible for overseeing the Group's financial performance and strategy (see Notes – Chairman of the Board of Directors' Report in accordance with article L.225-37 of the French Commercial Code).

6.1.1.2.2 Key figures

6.1.1.2.2.1 Financial data

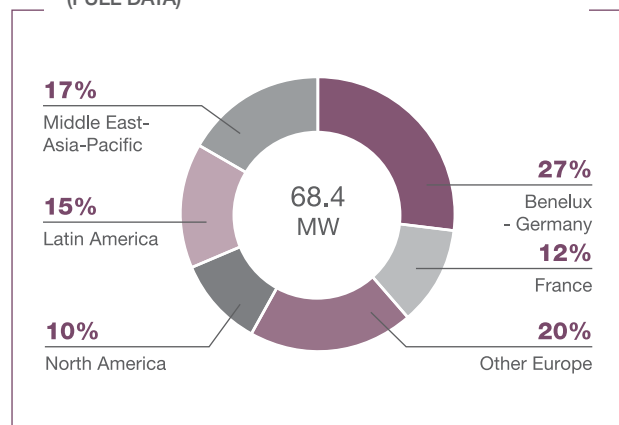
● GROUP

(Proforma figures, in € billion)	2008	2007	Gross change as a %
Revenues	83.1	71.2	+16.6%
EBITDA	13.9	12.5	+10.7%
Net income, Group share	6.5	5.8	+13.0%
Net investments	11.8	7.7	+53.2%

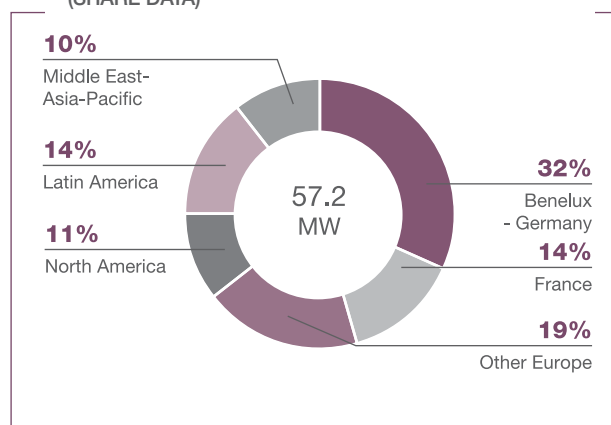
6.1.1.2.2.2 Electricity generation

GDF SUEZ owns and develops a flexible, high-performing generation system in its key markets: Europe, North America, Latin America, the Middle East and Asia. The Group's installed capacity at December 31, 2008, full data, was 68.4 GW<sup>(1)</sup> and 57.2 GW<sup>(2)</sup> with share data.

● DISTRIBUTION OF GENERATION CAPACITY BY ZONE (FULL DATA)



● DISTRIBUTION OF GENERATION CAPACITY BY ZONE (SHARE DATA)



(1) Full calculation takes account of the capacity of GDF SUEZ's wholly-owned assets, whatever the real holding rate may be, except in the case of nuclear drawing rights, added when the Group holds them, and deducted when they are granted to third parties by the Group.

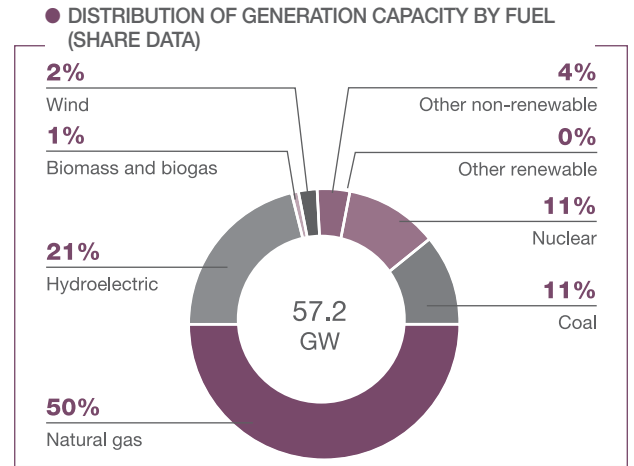
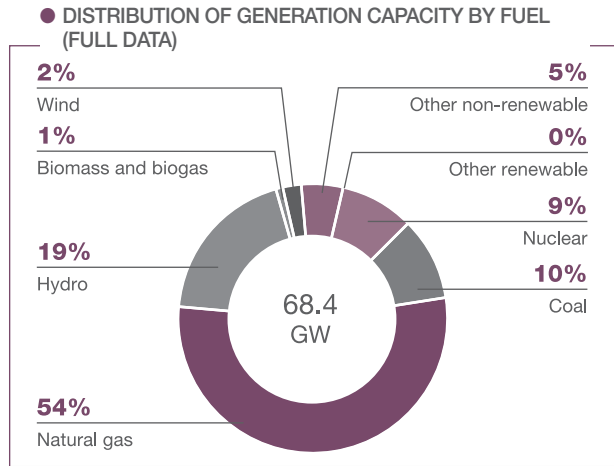
(2) The calculation by share takes account of the capacity of fully consolidated companies and the capacity of proportionately consolidated companies or companies using the equity method, in proportion to the share held.

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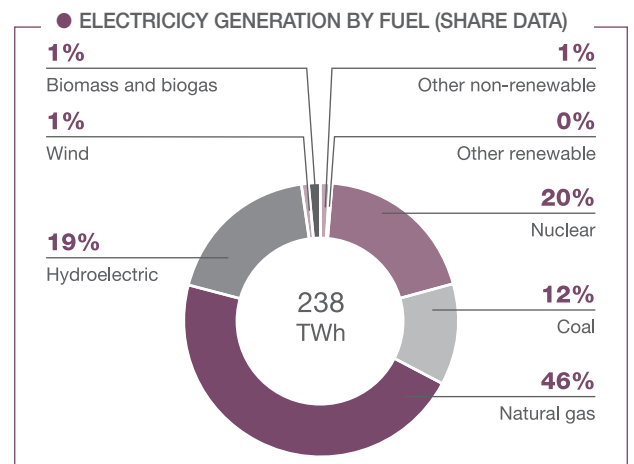
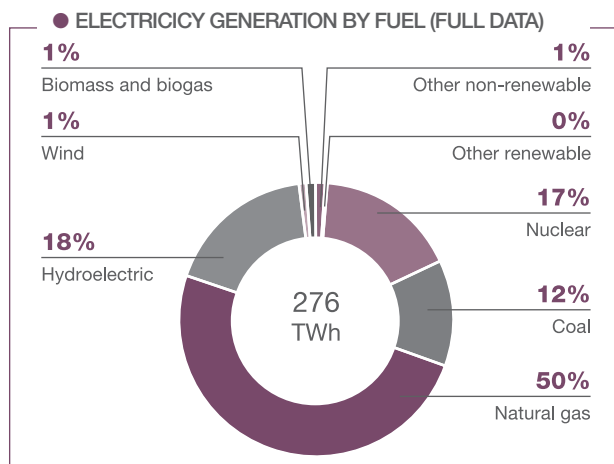
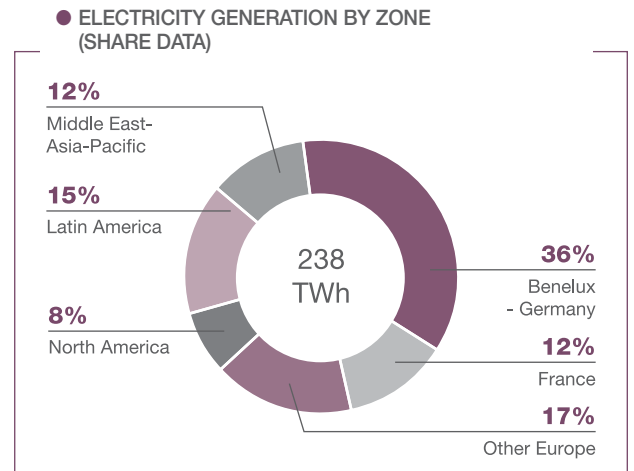
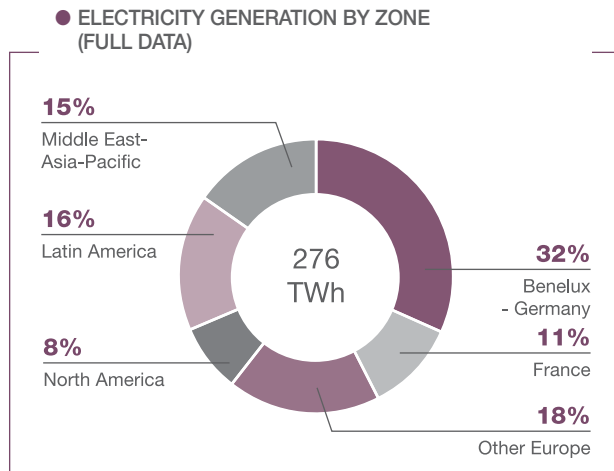
# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES



Using full data, the facilities comprise one-half natural gas plants, 19% hydraulic plants and 9% nuclear plants. In 2008, the Group produced 276 TWh using full-data calculation and 238 TWh using the share data method.



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Half of the production (using full data) comes from natural gas plants, 18% from hydraulics and 17% from nuclear plants.

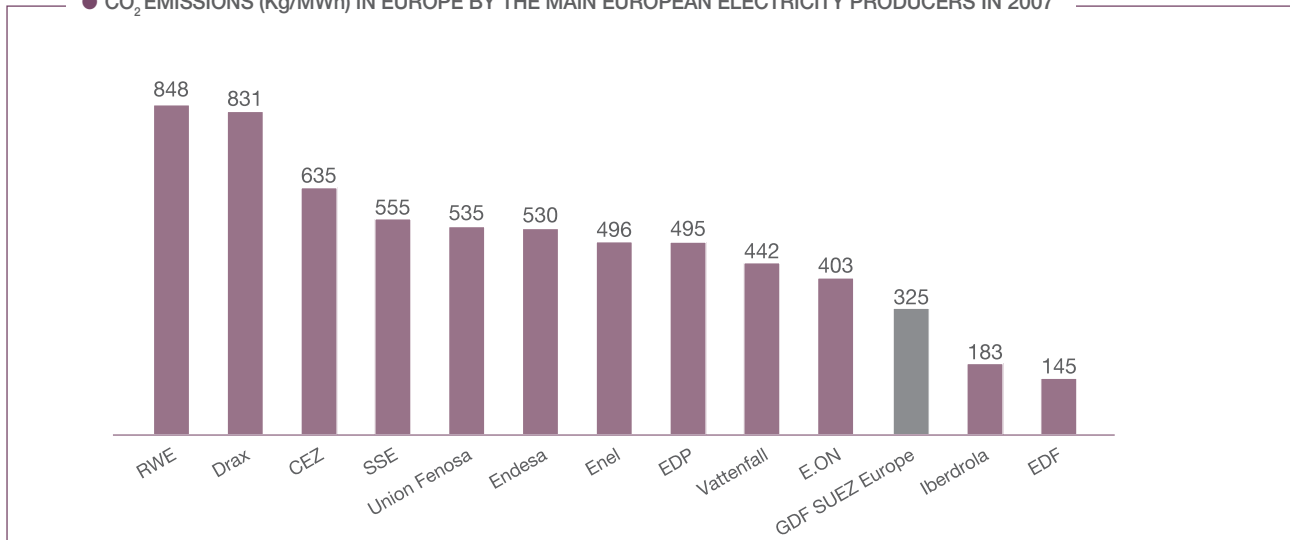
The combined power of Group projects under construction at December 31, 2008, was 20.4 GW, with around two-thirds of this coming from natural gas.

GDF SUEZ believes that this structure guarantees robust competitiveness in terms of both energy efficiency of power plants and environmental impact. In fact, production capacity comprises efficient technologies and low-pollution fuels.

The Group is continuing its efforts in this area, and it also participates in research to improve the efficiency of power plants and lessen their local and global environmental impact.

The Group's electricity generation systems have low CO<sub>2</sub> emissions, with an average emission rate of 325 kg CO<sub>2</sub>/MWh in 2007 in Europe, which is below the European average as estimated by PWC of 373 kg/MWh. Globally, the Group's emission rate from its power plants at the end of 2007 was 395 kg/MWh in 2007.

● CO<sub>2</sub> EMISSIONS (Kg/MWh) IN EUROPE BY THE MAIN EUROPEAN ELECTRICITY PRODUCERS IN 2007



Source: PWC for other Companies/GDF SUEZ/(for the Group) (European emissions from electricity generation).

The total power capacity of the Group's projects under construction was 20.4 GW on December 31, 2008, of which approximately two-thirds is natural gas based.

**6.1.1.2.2.3 Natural gas supply portfolio**

The Group's natural gas is primarily supplied through one of the most diversified portfolios of long-term contracts in Europe with sourcing in more than 10 countries. These contracts give GDF SUEZ the

visibility it needs to ensure its development and the security of its supply. GDF SUEZ is also one of the most important short-term market players in Europe. On this market, it adjusts its supply to its needs by optimizing purchase costs.

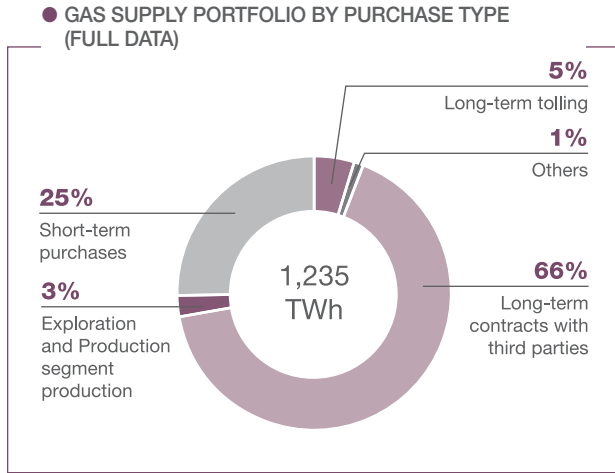
The GDF SUEZ portfolio, which represents some 1200 TWh, or approximately 110 billion m<sup>3</sup>, is one of the most diversified in Europe.

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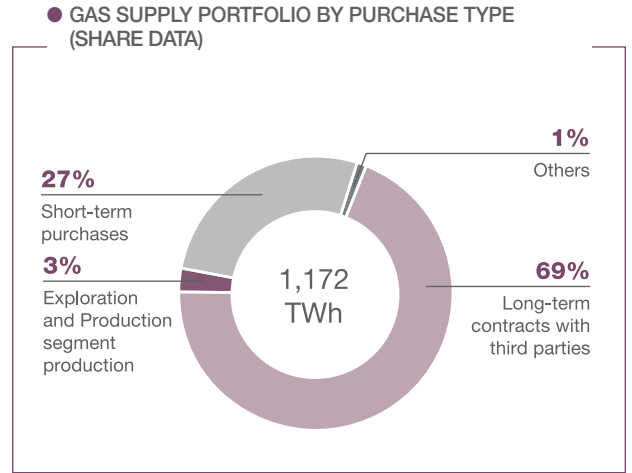
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## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

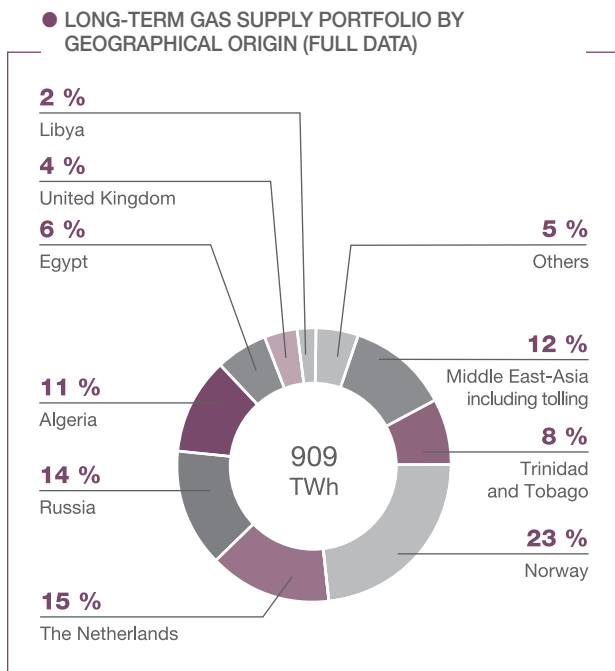


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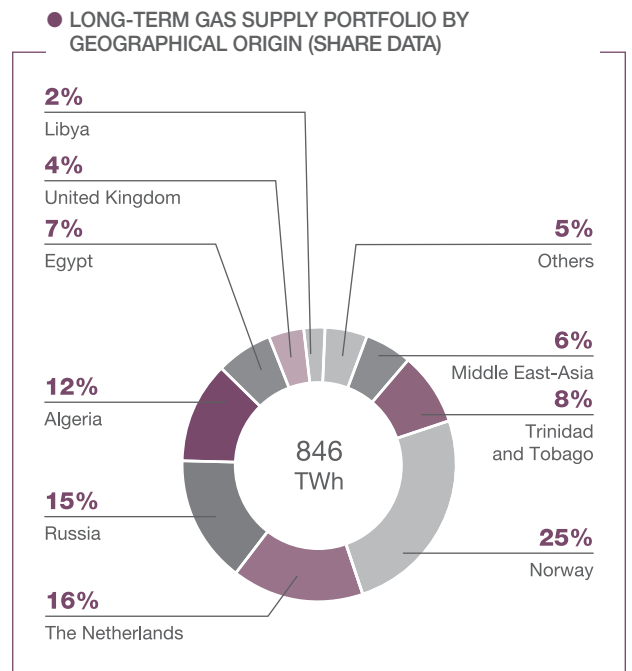


Estimated data.

Its two leading suppliers are Norway and the Netherlands, which represent 23.4% and 14.5% of the Group's long term supply respectively (using full data) (25.1% and 15.6% using the share data method). Russia, the Group's third leading supplier, represents 13.8% of its portfolio (14.8% using the share data method).



Estimated data.



Estimated data.

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**6.1.1.3 The energy sector around the world and in Europe**

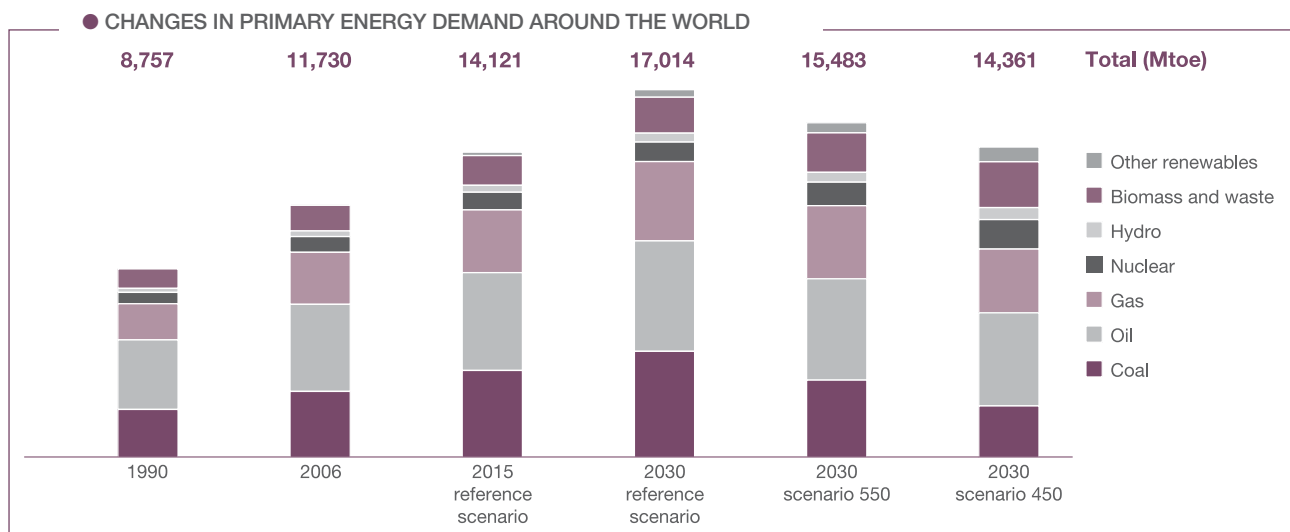
**6.1.1.3.1 The energy industry around the world**

The global energy industry is facing with a triple challenge:

- the challenge to ensure secure supply, resulting from the increase in demand for energy (+1.6% annually until 2030 according to the International Energy Agency reference scenario) due to several factors: changes in demographics, development, lifestyles, trade, aging infrastructures and the reduction in fossil fuel production in some areas;
- the challenge to remain competitive, related to the increasing volatility of energy prices and the relative scarcity of fossil fuels;
- a climate challenge, linked to the increase in greenhouse gas emissions (+1.6% annual increase in CO<sub>2</sub> emissions until 2030 according to the scenario referenced above).

This triple challenge has brought about a rise in costs, substantial needs for capital spending and profound changes to the energy mix, all within a context of integration and deregulation.

Each year, the International Energy Agency (IEA) publishes its “World Energy Outlook” (WEO), a document analyzing the global energy forecasts. Much of the data included below comes from the 2008 edition, and corresponds for the most part to the IEA reference scenario. However, the agency deems that this scenario is unlikely to be sustainable, mainly given the presumed rise in greenhouse gas emissions and the resulting temperature increase. For this reason, in its 2008 edition, the IEA sets out two alternative scenarios based on highly voluntary policies to fight global warming: a “550 policy” scenario that corresponds to a stable atmospheric greenhouse gas concentration of 550 ppm CO<sub>2</sub> equivalent and a “450 policy” scenario along these same lines. Most of the data below from the WEO 2008 is only available for the reference scenario.



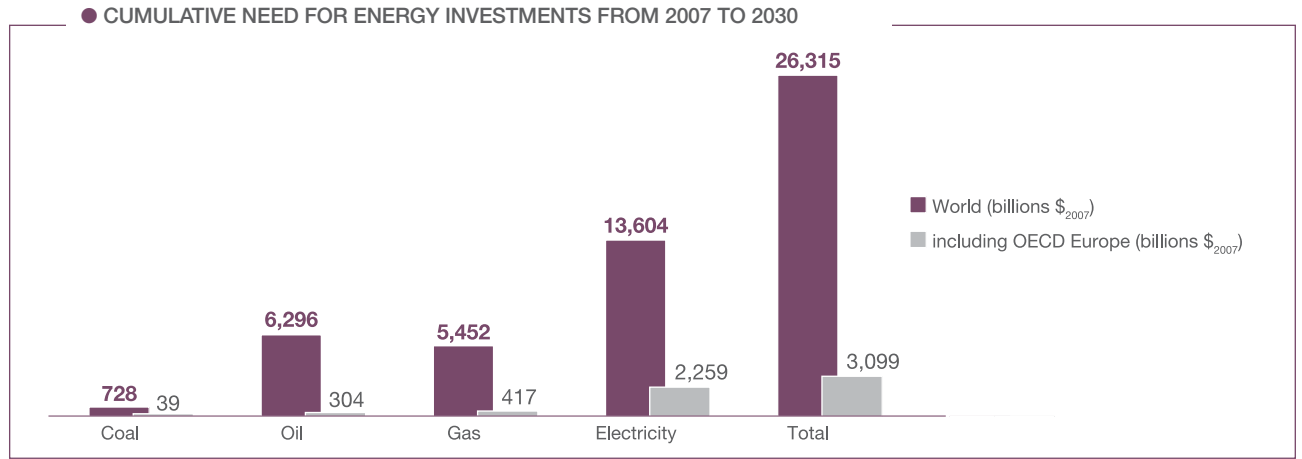
Source: IEA WEO 2008.

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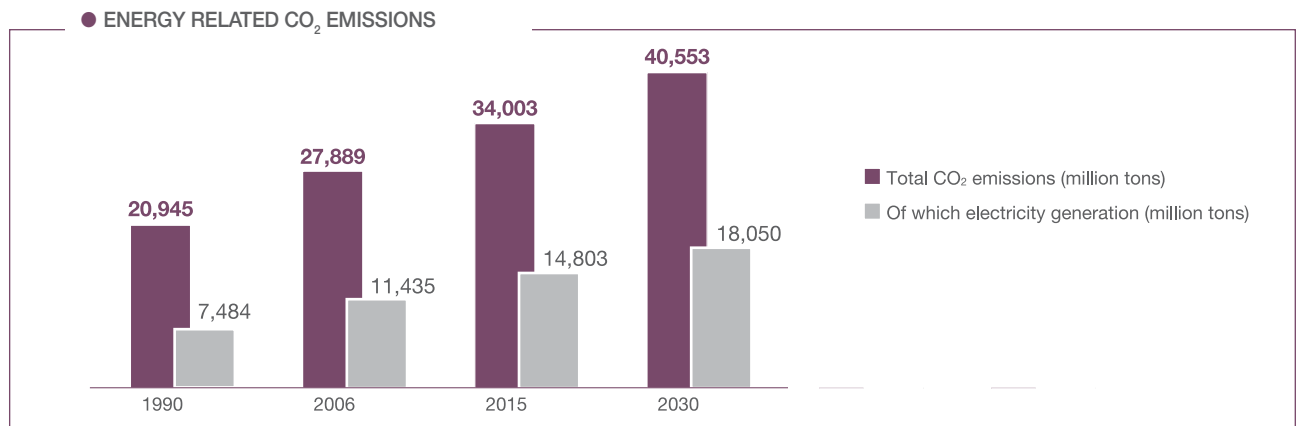
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## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES



Source: IEA WEO 2008, reference scenario.



Source: IEA WEO 2008, reference scenario.

#### 6.1.1.3.2 The electricity sector

##### Constantly increasing consumption

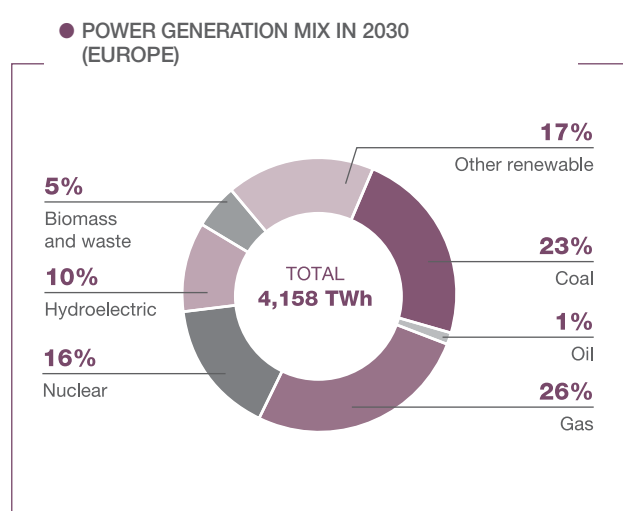
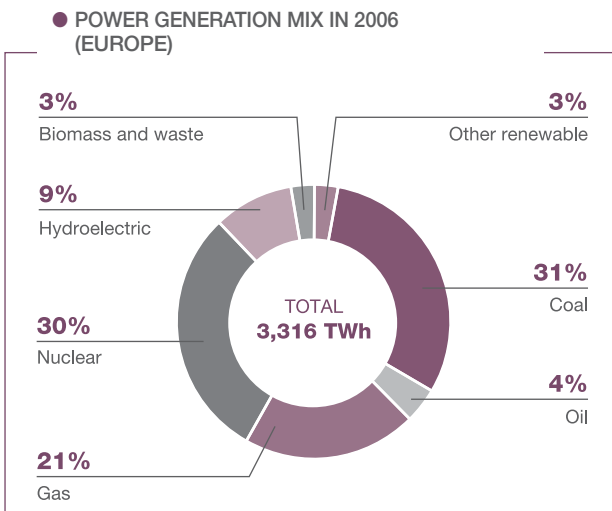
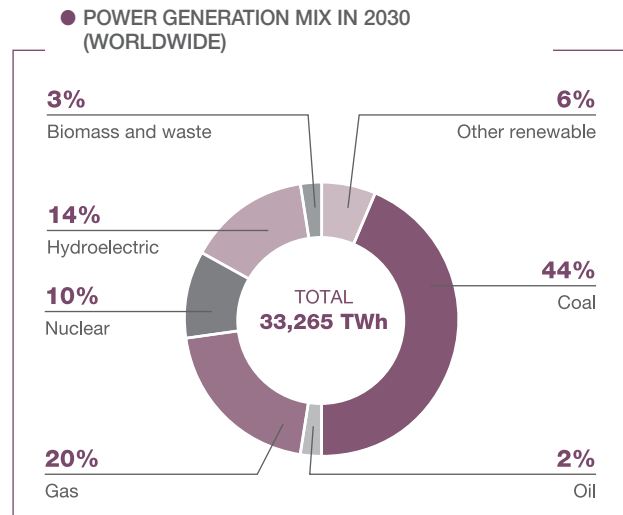
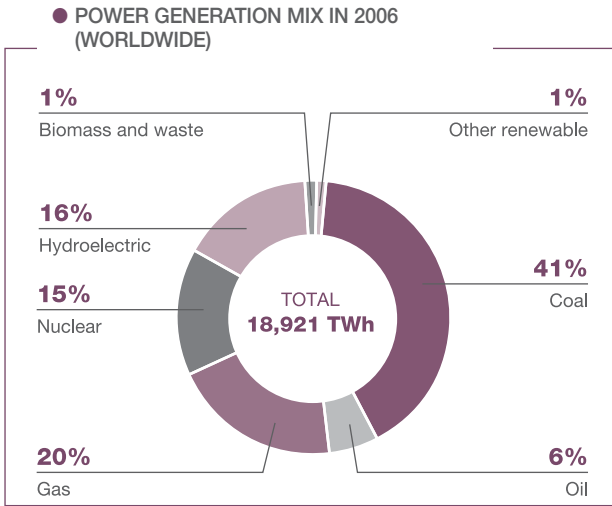
According to the IEA reference scenario, the global increase in electricity consumption is expected to be 2.4% annually between 2006 and 2030, with electricity's share of final energy consumption increasing from 17% to 21%.

In Europe (27-member European Union), still according to the IEA, electricity production was 3,316 TWh in 2006. This production was broken down into coal (31%), nuclear (30%), natural gas (21%), and fuel oil (4%), with renewable energy accounting for approximately 14%.

An annual growth rate of 0.9% is expected from 2006-2030.

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Source: IEA WEO 2008, reference scenario.

**Huge investment needs**

For 2007-2030, worldwide electricity production needs are estimated at over 4,500 GW, representing a total investment (including transmission and distribution) in the region of around \$13,600 billion (in 2007-dollars). There are currently 36 nuclear reactors under construction across the globe.

In OECD Europe, electricity generation capacity needs are estimated at approximately 700 GW, which represents an investment of more than \$1,500 billion (in 2007-dollars) for production, plus over \$700 billion (in 2007-dollars) for distribution and transmission.

Source: IEA WEO 2008, reference scenario.

**Increasingly volatile and growing prices over the long term**

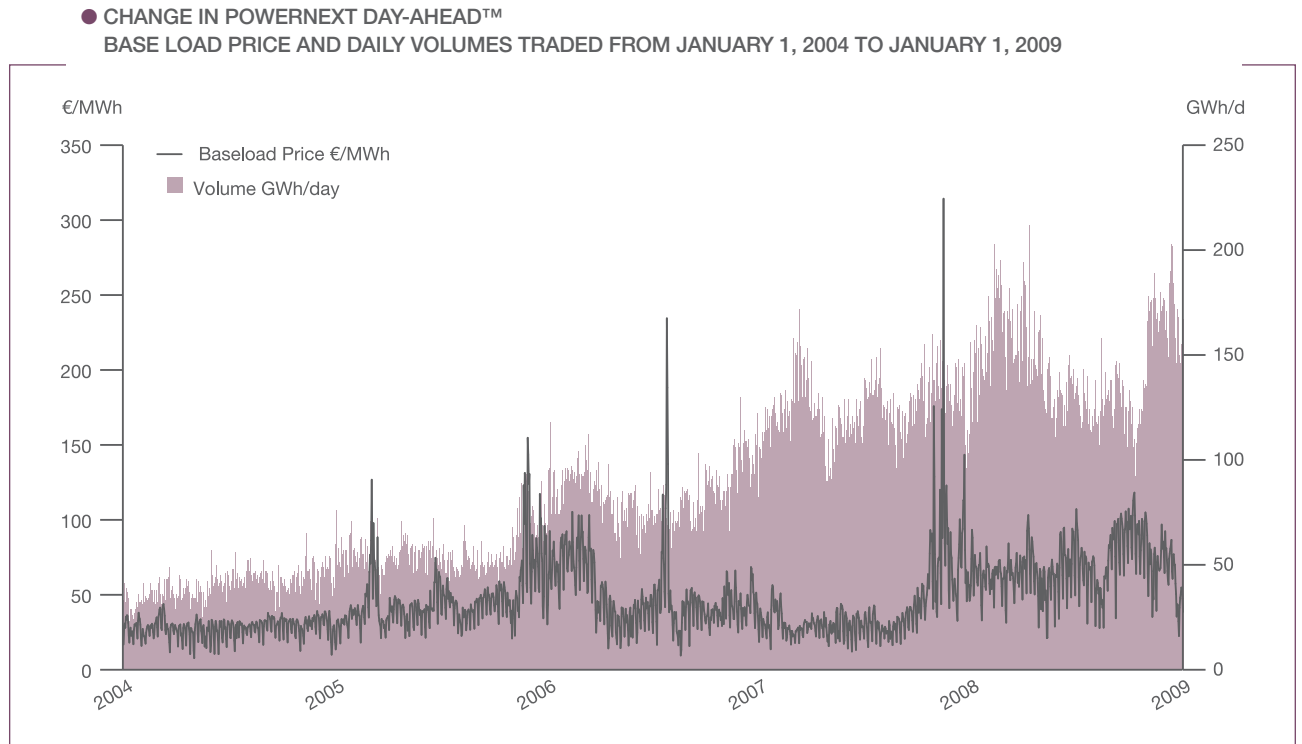
Electricity cannot be stored. Supply and demand must be balanced at all times within a given area. This point, when combined with the highly variable nature of primary energy and CO<sub>2</sub> prices, means that this type of energy has a highly variable wholesale energy spot market price.

Electricity prices regularly hit peak levels due to supply-demand pressures, influenced by low supply or high demand.

# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES



Source: POWERNEXT.

#### Nuclear, a Belgian and French exception

In Belgium, nuclear energy has a dominant position in electrical power production. In 2008, it represented around 55% of the total production in Belgium<sup>(1)</sup>. All nuclear units are operated by GDF SUEZ, but part of the capacities is held by EDF and SPE.

France is distinctive in that most of its electrical power generation, more than 77%, originates from nuclear power<sup>(2)</sup> and most of this energy comes from EDF. Its main competitors are GDF SUEZ and E.ON (which acquired Snet in 2008).

At the beginning of 2009, the French government announced that a second EPR would be built in France, through a partnership between EDF and GDF SUEZ. A third EPR may also be built.

#### 6.1.1.3.3 The natural gas industry

##### Constantly increasing consumption

- Worldwide

The natural gas markets have experienced regular growth since 1973. From 1973 to 2007, these markets saw an average growth

of 2.7% each year<sup>(3)</sup>. In 2007, global natural gas consumption was 3,026 billion m<sup>3</sup>.

The share of total energy consumption held by natural gas is still increasing, although the pace is slowing. The IEA<sup>(4)</sup>, in its reference scenario, predicts that natural gas share will increase from 21% in 2006 to 22% in 2030, an annual growth rate of 1.8%. This growth is expected to be driven primarily by Africa, Latin America and Asia, where annual rates will be over 2.5%. However, the European and North American OECD markets will remain the major markets over that period (representing 43% of final gas consumption in 2030).

According to the IEA, the electricity production sector should account for over half of the increase in global natural gas demand (+ 2.4% annually between 2006 and 2030), rising from 39% of demand in 2006 to 45% in 2030. The IEA states that many world regions prefer natural gas to other types of fuel, especially for electricity production, due to its competitive cost, its environmental advantages and the relatively low cost of investment necessary for a combined natural gas cycle compared with other means of centralized electricity production.

(1) Source FEBEG (Belgian Federation of Electricity and Gas Companies).

(2) According to data in the "Bilan énergétique de la France pour 2007" (French energy report 2007) from the Ministry of Ecology, Energy Sustainable Development and Regional Policy.

(3) According to data in IEA's "Natural Gas Information 2008".

(4) According to data in IEA's "World Energy Outlook 2008".

- In Europe

In Europe (27-member European Union), again according to the IEA, natural gas consumption in 2006 was approximately 530 billion m<sup>3</sup>. The share of natural gas in primary energy consumption is expected to increase from 24% in 2006 to 29% in 2030 with an annual growth rate of 1% over the period, according to the reference scenario. Final demand for natural gas in Europe is expected to also increase between 2005 and 2030, with a more modest 0.5% annual increase.

Source: IEA WEO 2008, reference scenario.

The increasing demand for natural gas in the sector of electrical power production is, just as on a worldwide level, consistent and sustained. In 2006, power production made up 31% of primary natural gas consumption and should rise to 40% in 2030. The annual growth of power generation from natural gas over that period will be in line with the worldwide level, at above 2%.

This growth should be driven by Europe's application of European directives that aim to fight global warming and cut greenhouse gas emissions by encouraging the use of energy sources that emit less CO<sub>2</sub>.

### Natural gas supply

The global natural gas market is characterized by a concentration of reserves in limited locations, which are often distant from consumption areas. One fundamental trait of the natural gas industry is the high cost of transport, which makes up a significant percentage of the total cost of delivered natural gas.

Trade between regions is increasing (15% of primary natural gas demand in 2006, 23% in 2030), mainly due to brisk development

in the LNG industry (of around 200 billion m<sup>3</sup> in 2006, 680 in 2030), although overland exchange (large transport gas pipelines) is still the most common form of transport.

To transport these new amounts, the industry will have to build new gas pipelines and develop additional regasification capacity. The gas industry is extremely capital-intensive. The IEA estimates the need for investment in the global gas industry in 2007-2030 at over \$5,450 billion (2007 dollars), of which 61% would go towards E&P, 31% would be used for transport and distribution and 8% for LNG.

Source: IEA WEO 2008, reference scenario.

European demand for natural gas is partly satisfied by European reserves. In 2007, 37% of the natural gas consumed in Europe (27-member EU) came from within Europe, with the remainder coming from Russia (24%), Norway (17%) and Algeria (9%). In 2006, the European Union's natural gas production was around 200 billion m<sup>3</sup>, with 39% produced in the United Kingdom (77 billion m<sup>3</sup>) and 33% in the Netherlands (65 billion m<sup>3</sup>).

Source: Eurogas 2007-2008 Annual Report.

Given the expected drop in European production, in order to meet growing consumption, an increasing percentage of Europe's natural gas supply needs to come from imports. The IEA predicts that natural gas imports to European OECD countries will increase from 241 billion m<sup>3</sup> in 2006 (45% of consumption) to 477 billion m<sup>3</sup> (69% of consumption) in 2030. These imports are expected to come primarily from Russia and Algeria, as well as other countries in West Africa, the former Soviet Union, the Middle East and Latin America.

Source: IEA WEO 2008, reference scenario.

## 6.1.2 STRATEGIC PRIORITIES

The Group has the benefit of a promising industrial outlook unaffected by the economic and financial crisis. GDF SUEZ's competitive position in its businesses, its experience, its technological leadership and its commitment to sustainable development give it a solid foundation for growth in a changing competitive environment (see 6.1.1.3 *The Energy Industry around the World and in Europe* and 6.5 *Competitive Environment*).

In this context, GDF SUEZ plans to continue policies aimed at improving operating profitability and generating cash in all its businesses and increase its industrial development through a major investment program (€30 billion in 2008-2010). These investments will be carried out according to strict financial discipline (maintaining mid-term «strong A» category rating and investment criteria). These investments will focus on power generation capacities, both renewable and traditional, primarily in

Europe and in the Americas, and on the entire natural gas chain (E&P, LNG, infrastructures, etc.).

The GDF SUEZ development strategy is based on five points:

- reinforcing its leading position on both its domestic core markets, France and Benelux;
- using complementary advantages to reinforce its offers: combined natural gas/electricity offers, innovative energy services;
- accelerating industrial development, in particular: gas upstream (E&P, LNG), infrastructures and power production (nuclear, renewables...);
- supporting growth in all of its businesses in Europe;
- strengthening relays for international development (Brazil, Thailand, United States, Middle East), in particular by developing independent power generation on new high-growth markets.

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# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

The strategic priorities, broken down by business, are as follows.

**In electricity**, the Group aims to develop a diversified, efficient, flexible and sustainable production mix with a capacity of 100 GW by 2013, more than 10 GW of which would be in France, mainly in renewable energy (hydraulic, wind, biomass and solar), nuclear power and natural gas plants.

Nuclear energy is a competitive source for electricity production, but it is also the only energy source that can help massively cut greenhouse gases on the short- and medium-term. Countries that use this type of energy are less import dependent than fossil fuel-using countries. The industry boosts technology, research, jobs and local development. GDF SUEZ is an historic player in the nuclear field (7 units in Belgium with 5,244 MW and stakes in the French nuclear power plants in Chooz and Tricastin for 1,100 MW), with 40 years experience in the upstream cycle (engineering, purchasing, operation, maintenance, etc.) and the downstream cycle (waste services management, decommissioning). It also boasts solid industrial credibility (world-class operational performance), a constant commitment to safety and an original development model in partnership with manufacturers and large consumers. Backed by these assets, GDF SUEZ aims to play a leading role in the new nuclear generation and support the development of third-generation nuclear reactors in France (where the Group is a partner in the second EPR), Europe and beyond.

**In French retail commercialization**, the Group is developing multi-energy offers with the ultimate goal of 20% market share of retail electricity customers.

**In exploration-production and natural gas supply**, the Group aims to bringing its reserves up to 1,500 Mboe eventually and continue developing, diversifying and streamlining its portfolio.

**In LNG**, the Group will continue its growth by making the most of its solid positions to build on its number-one position in the Atlantic basin.

**In infrastructures**, the Group will have annual regasification capacities of 33 billion m<sup>3</sup> in France and Belgium by 2013. It will develop its storage capacities in Europe (+ 3 billion m<sup>3</sup> between 2008 and 2015) and it will increase its transport capacities by 15% between 2008 and 2013.

**In energy services**, the Group hopes to capitalize on opportunities for development while positioning the Group amongst the most profitable players.

**In the environment Business Line**, the Group hopes to achieve robust development with profitable growth in the water and waste management businesses, through targeted development in Europe and a selective international approach based on new business models: management contracts, long-term capital-intensive partnerships, and innovative financial packages.

### 6.1.3 DESCRIPTION OF THE ACTIVITIES OF THE BUSINESS LINES

GDF SUEZ is organized into five energy Business Lines and one environment Business Line, each of which will be presented below.

#### 6.1.3.1 Energy Business Lines

##### 6.1.3.1.1 Energy France Business Line

###### 1 Mission

GDF SUEZ's Energy France Business Line is a major player in the French energy sector.

It performs a range of activities from power generation to the sales and marketing of natural gas, electricity and related services, and eco-comfort solutions for housing.

Its presence in the Group and its diversified, efficient production assets give GDF SUEZ customers a highly competitive energy and service offer thanks to the flexibility of its production and supply.

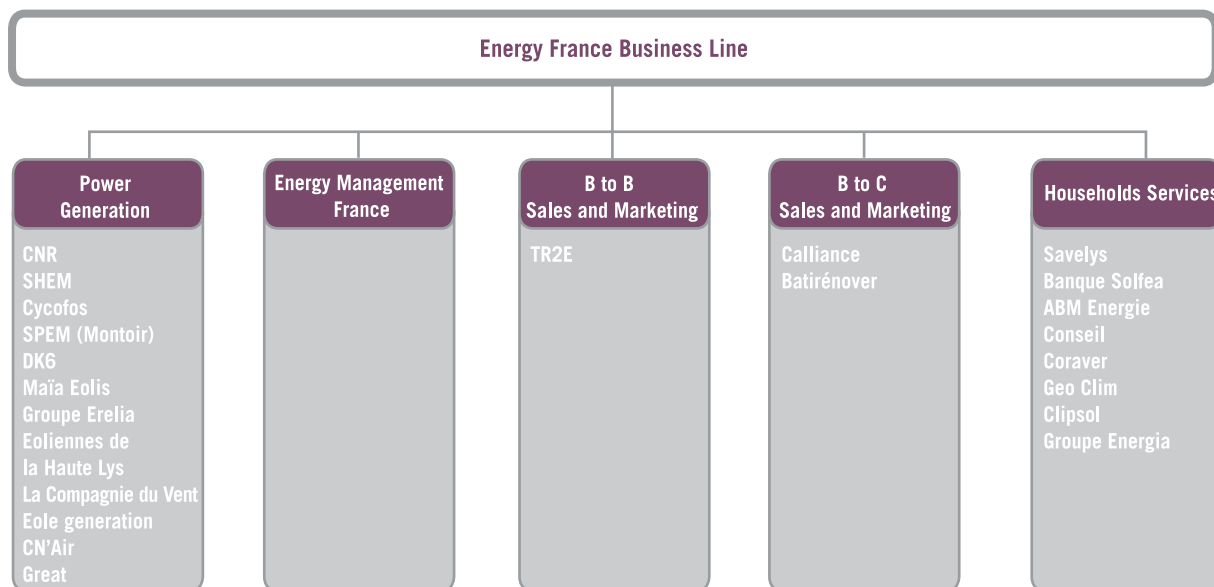
###### 2 Strategy

The GDF SUEZ Energy France Business Line has invested to become a major player in French sustainable development. Its production capacities have low carbon emissions and include a high percentage of renewable energy sources. The GDF SUEZ Energy France Business Line also provides its customers with service offers that aim to promote the use of renewable energy in their homes.

The Business Line has clear development objectives in France's energy sector: to sustain its leader position in natural gas sales and marketing, to be the main challenger in electricity production and sales and marketing and a reference in eco-comfort solutions for individual housing.

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4 Key figures

● NET SALES AND EBITDA FOR THE BUSINESS LINE

*(Unaudited proforma figures, millions of euros)*

	2008	2007	Gross change as a %
Revenues	14,457	12,368	16.9%
EBITDA	246	368	(33.1%)

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## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

#### ● POWER GENERATION CAPACITIES – ACCOUNTING CONSOLIDATION METHOD (FULL CONSOLIDATION UNLESS OTHERWISE STATED)

	2008	2007
<b>Generation capacity (in MW)</b>		
Thermal division	1,210 <sup>(*)</sup>	788
Hydraulic division	3,714	3,710
Other renewable energies division <sup>(†)</sup>	384	250
Nuclear (drawing rights)	1,108	1,108
<b>TOTAL</b>	<b>6,416</b>	<b>5,856</b>
<b>Electricity production (in TWh)</b>		
Thermal division <sup>(**)</sup>	4.0	3.7
Hydraulic division	17.5	17.0
Other renewable energy division	0.7	0.1
Nuclear (drawing rights)	7.6	7.7
<b>TOTAL</b>	<b>29.8</b>	<b>28.5</b>
<b>Natural gas sales (in TWh)</b>		
B to C	147.5	138.6
B to B	146.6	150.7
<b>TOTAL</b>	<b>294.1</b>	<b>289.3</b>
<b>Electricity sales (in GWh)</b>		
Retail customers	2,740	1,588
Large Account customers	11,542	14,122
Market sales	16,380	12,234
Purchase obligations	1,108	468
<b>TOTAL</b>	<b>31,771</b>	<b>28 412</b>
<b>Number of customers (in thousands)</b>		
Number of natural gas sites	10,638	11,004
Number of electricity sites	589	209
Number of boiler maintenance contracts	1,462	1,456

(\*) *Maïa Eolis at 49%, proportionally-consolidated, Eole Generation in stake held (5.6 MW for St Servais + 51% of 7.5 MW (according to the agreement, 49% Endesa) for Cernon fleet 1 + 9.16% of 10 MW of Cernon 2 fleet (the remaining 90.84% stake is held by local investors).*

(\*\*) *Including Cycofos in test phase for 422 MW.*

(\*\*\*) *Recognized share of sales to ArcelorMittal on DK6.*

Key positions:

- Number 1 natural gas supplier in France;
- 2<sup>nd</sup> leading electricity producer and seller in France;
- 2<sup>nd</sup> leading hydraulic producer;
- Number 1 wind producer;
- Number 1 in individual boiler maintenance in France;
- Headcount: nearly 10,000 employees.

#### 5 Highlights in 2008

- Acquisition of several eco-comfort subsidiaries (ABM Energie Conseil on December 28, 2007, Energies du Sud in March 2008, Coraver on July 7, 2008, Energia on July 21, 2008, Geoclim on July 25, 2008, Clipsol on October 2, 2008) which were combined under the subsidiary Climasave.

#### January

- Launch of new distribution channels for private individuals through partnerships with LCL and Darty.

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**March**

- Participation in EDF's call to tender: acquisition of nuclear release sourcing in March and November.

**April**

- Development of the wind power business by adding to the size of farms (extension of the Haut des Ailes d'Erelia farm in April and inauguration of the first wind farm in Picardy by the Compagnie du Vent in June) and through acquisitions (in February, Nass & Wind, now Eole Generation, Fox and Great by CNR).
- Inauguration of the Verna plant by the SHEM in April 2002.

**September**

- The 2008 *Palme d'Or* for the best civic corporation awarded to the B to C Sales and Marketing Business Unit.

**October**

- Creation of a shared balance group that pools all the Energy France Business Line's power generation sources.
- Launch of the "Dolce Vita 2 Énergies Nature" offer.

**November**

- Acquisition of 100% of shares of Savelys.

**6 Power Generation BU**

GDF SUEZ began developing a high-performance, diversified electricity supply portfolio. GDF SUEZ's installed capacity in France represented over 6 GW at the end of 2008, 64% of which came from renewable energy sources. There is an additional 1.3 GW under construction with a target of 10 GW in installed capacity by 2013.

In France, GDF SUEZ's power generation business is organized into three divisions:

- **a thermal division**, which, in late 2008 had a 788 MW natural gas combined cycle in operation in Dunkerque. This plant uses smelting gases from the nearby ArcelorMittal steelworks. A second natural gas combined cycle is set to be commissioned in 2009; this 422 MW plant (with a 62 MW smelting gas recovery unit under construction) is located in Fos-sur-Mer.

There are two other combined gas cycles under construction, one in Fos-sur-Mer (425 MW) and one in Montoir-de-Bretagne (435 MW). They are set to start production in 2010. Plans for a cutting-edge power plant in Ploufragan (Côtes d'Armor) are pending administrative approval.

- **a hydraulic division** organized around the Compagnie Nationale du Rhône (CNR, 49.98%-owned by GDF SUEZ, fully-consolidated) and the Société Hydroélectrique du Midi (SHEM, 99.67%-owned by GDF SUEZ, fully-consolidated). With 15% installed capacity and more than 25% of French hydraulic production, GDF SUEZ is the country's second-leading hydraulic operator. In France, its development is currently carried out through building and acquiring new structures, developing production on existing sites by building small hydroelectric power plants on sills, locks and dams, and taking over concessions in preparation for deregulation of the French hydroelectric concession market.

The Compagnie Nationale du Rhône was founded in 1933 and is the sole concessionaire for development and operation of the Rhône. Its work on this concession is threefold:

- generating electricity;
- improving river navigation;
- farm irrigation.

It operates 19 hydroelectric power plants and dams along the Rhône. Each year, it produces an average of 15.7 TWh and has a workforce of approximately 1,200 staff.

GDF SUEZ is currently its primary shareholder (49.98%) alongside Caisse des Dépôts et Consignations and local communities.

- **a renewable energy division** has put GDF SUEZ, through its subsidiaries (Maïa Eolis, Erelia Group, Eoliennes de la Haute Lys, La Compagnie du Vent, Eole Generation, CN'AIR, Great), at the top of the French wind power assets, with an installed production capacity of 384 MW at the end of 2008, in addition to the 400 MW under construction or approved for construction (exempt from appeal). The Group also hopes to develop offshore wind projects through its subsidiary La Compagnie du Vent with the *Deux Côtes* (two coasts) project, which plans to build offshore wind farms off the coast of the Somme and the Seine-Maritime departments, totaling 141 wind turbines and 705 MW in power. The Group also owns a large portfolio of photovoltaic solar projects and has signed a protocol with CEA <sup>(1)</sup> to begin a feasibility study on plans for a cylindro-parabolic demonstrator (concentrated solar technology) in Cadarache (Bouches-du-Rhône).

**7 Energy Management France BU**

The Energy Management France BU aims to increase the value of electricity generation, provide the Business Line's Sales and Marketing BU's with electricity and natural gas at the best possible price, manage transmission and streamline the GDF SUEZ Energy France Business Line's energy balance sheet.

In 2008, the GDF SUEZ Energy France Business Line managed diversified electricity portfolio with nuclear contracts and one natural gas combined cycle plant, and cutting-edge and run-of-the-river hydraulic facilities (CNR and SHEM). To round out its basic and peak supply, GDF SUEZ has access to market products or structured contracts (Nuclear Release, contract with EDF, etc.).

With this in mind, the Business Line successfully submitted bids to the March 2008 and November 2008 calls to tender organized by EDF (Nuclear Release) and through a bid mechanism acquired quantities that allowed it to secure its short-term commercial development. In addition, the three year contract previously signed with EDF ended in September 2008.

During the merger, a shared balance scope was introduced on October 1, 2008 with the goal of reducing the penalties brought about by differences between planned and completed injection and drawing from the French electrical network.

With the Global Gas & LNG Business Line, this BU manages natural gas supply for its combined cycle plants and for the Energy

(1) CEA: French Atomic Energy Commission

# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

France Sales and Marketing BUs. It is also in charge of managing transmission on the natural gas distribution network and hedging the natural gas market risks faced by the Energy France Business Line.

In operational terms and in the context of formalized and adequate risk, the Energy Management BU aims to support the development of:

- sellers, by providing them with competitive sourcing;
- an increasingly broad and diversified production asset base.

In 2008, within the BU's scope, the managed volumes represented 31.8 TWh in electricity and 294 TWh in natural gas.

#### 8 B TO B Sales and Marketing BU<sup>(1)</sup>

The B to B Sales and Marketing BU sells natural gas, electricity and related services to French industrial customers <sup>(1)</sup>, the private and public service sector, collective housing associations and local communities.

At December 31, 2008, it managed a portfolio of 263,000 natural gas sites and more than 128,000 electricity sites, representing approximately 55,000 customers.

In 2008, its natural gas sales totaled 147 TWh, compared with 150 TWh in 2007. Sales were slightly down (-2%, excluding the effect of the climate, or -6% corrected to account for this factor), due to the negative effect of the unfavorable economic conditions on the market and a loss of customers to other operators.

The BU aims to:

- preserve its natural gas sales volumes;
- continue developing its customer portfolio in electricity by continuing to pool its natural gas and electricity Sales and Marketing since the GDF SUEZ merger;
- support its customers in controlling energy consumption, through innovative offers, thereby maintaining its market share by building its customers' loyalty;
- guarantee profit levels in line with the Group's expectations.

It aims to steer its customers towards a comprehensive approach to energy, combining business performance and respect for the environment.

It relies on a portfolio of recognized brands: Gaz de France Énergies Communes, "an alliance for quality of life in the regions", which targets elected officials and regional public servants, and Gaz de France Provalys, which upholds two core values: customer recognition (relevance, performance, proximity) and responsibility (sustainable relations and support for better energy control), and similarly on a panel of innovative offers, in particular its AlpEnergie electricity offers, which provide access to a renewable electricity supply from GDF SUEZ's hydraulic resources.

<sup>(1)</sup> B to B: business to business.

<sup>(2)</sup> B to C: business to customers.

<sup>(3)</sup> DGCCRF: French Department of Competition, Consumption and the Fight against Fraud.

#### 9 B TO C Sales and Marketing BU<sup>(2)</sup>

The individual gas and electricity market was deregulated on July 1, 2007, making 2008 the first full year after this historic event. Deregulation made it possible to stabilize customer management after the implementation of a new information system and to offer customers package deals for natural gas and electricity. Under this option, around 360,000 additional customers chose an electricity market offer. GDF SUEZ has tested new sales and contact channels, using the internet and partner networks with players who decided to carry a portion of GDF SUEZ's services and offers: the DolceVita network of installers, the bank LCL, and a network of more than 200 outlets in partnership with association that work with disadvantaged customers.

In addition, the special solidarity rate (TSS) was introduced according to the schedule set by the French State in the second half of the year and is now operational.

Naturally, this deregulation resulted in the loss of some natural gas customers (approximately 370,000 in 2008, 3.6% of customers) 256,000 of whom left between January 1 and September 30, 2008 (official CRE figure from the third quarter of 2008).

New offers were launched. DolceVita 2 Énergies Nature's offer, was the first fixed price market offer giving private individuals the choice of a 100% commitment to the environment. Also of note, 300,000 additional customers chose to pay their bills monthly for easier personal management (50.4% customers pay monthly).

It was also the first year the entire customer base operated under the new Symphonie customer relations management information system. Through successive versions and upgrades, many of the system's early-stage anomalies were corrected following customer complaints.

Major efforts were made to handle these complaints, and a customer service department was set up. This department is in charge of resolving complaints and analyzing the messages received to continually improve processes and quickly restore service quality.

The CRE, consumer associations, the DGCCRF <sup>(3)</sup>, and the National Energy Mediator were kept regularly informed of the difficulties encountered and the solutions that were progressively introduced to the information system.

Finally, customer switchboard accessibility levels put GDF SUEZ among the top-ranked service companies in 2008.

In October 2008, the B to C BU launched DolceVita 2 Énergies Nature, the first fixed price market offer giving private individuals the choice of a 100% commitment to the environment, all while controlling their energy spending. With DolceVita 2 Énergies Nature, customers not only benefit from a fully-renewable electricity offer, but they can also purchase carbon credits to offset all of the CO<sub>2</sub> emissions from their natural gas consumption.

The historic electricity providers' current regulated sales prices make it difficult, under today's market sourcing conditions, for alternative providers such as GDF SUEZ to develop market offers.

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**10 Households services BU**

The Households Services BU aims to develop energy-efficient renewable energy-based solutions for private individuals in collective and individual housing. This business unit is a growth driver for GDF SUEZ, since it is active in added-value services to private individuals, which generate revenues and margins.

It was created with a dual objective in mind: to meet the *Grenelle de l'Environnement* goals while creating value and synergies between its businesses.

It comprises 3 divisions:

- CLIMASAVE, which markets energy-efficient solutions based on renewable energy for housing (consulting, installation, financing, maintenance, warranties);
- SAVELYS, which installs and maintains energy systems for private individuals;
- SOLFEA bank, which specializes in financing efficient home energy installations.

**CLIMASAVE**

Due to stronger regulatory restrictions, synonymous with an opportunity for the Group to seize value, GDF SUEZ Energy France decided to make a voluntary commitment to the energy efficiency market and to renewable energy for housing (a concept known as "eco comfort").

This growing market gives the Energy France Business Line the chance to move from a consulting role towards a new business that consists of consulting, selling, installing, maintaining, financing and providing renewable energy-based solutions.

In 2008, GDF SUEZ acquired five companies specialized in home eco comfort (Energia Group, ABM Énergie Conseil, Coraver, Geoclim and Clipsol), with a total equivalent revenues of €60 million and 600 employees, which were grouped together under the holding company CLIMASAVE, specifically created for this type of investment.

	Business	Market	2008 revenues (*)	Employees	% stake	Method of consolidation
Clipsol	Production, assembly and distribution of thermal and photovoltaic solar kits	Individual housing Collective housing	€20 M	130	51%	Fully-Consolidated
Energia Group	Renewable energy solutions integration	Individual housing under renovation	€35 M	346	54%	Fully-Consolidated
Coraver	Renewable energy solutions integration	Private individuals	€4.5 M	38	100%	Fully-Consolidated
Geoclim	Renewable energy solutions integration	Private individuals	€3.5 M	17	100%	Fully-Consolidated
ABM Énergie Conseil	Consultancy and thermal study firm	New service sector, individual home construction, private individuals	€1.5 M	18	100%	Fully-Consolidated

(\*) Unaudited revenues. Consolidated revenues only include the portion at the acquisition date.

GDF SUEZ also bought a stake in Energies de Sud, a company specialized in backing projects that develop full energy solutions with customers in the Hérault (France).

This new position on the private customer market gives GDF SUEZ richer customer relations, brands and offers and allows it to encourage the use of natural gas in eco comfort solutions.

**SAVELYS**

In France, SAVELYS works in the area of energy system maintenance for private individuals (individual and collective). Its activities include both contractual maintenance of fuel oil and gas boilers and heat pumps as well as all types of heating facility repair and replacement.

SAVELYS and its subsidiaries are present across France, with more than 250 agencies, which makes them the leader in their market (> 1,400,000 boilers under contract) with around 30% market share and number two in Europe after Centrica (British Gas).

On December 31, 2008, its customer portfolio was as follows:

- 47% individual customers;
- 47% collective customers (private or public);
- 6% collective heating (private or public).

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**BANQUE SOLFEA**

In 2008, Solfea confirmed its position as the specialist in eco-efficient housing financing and was awarded the first “*Trophée*” from CAPEB <sup>(1)</sup>-partner companies.

At the end of the year, total outstanding loans stood at €543 million. In addition, Banque Solfea, the leading CEE <sup>(2)</sup> collector in individual housing for GDF SUEZ, collected 35,000 CEE.

In a troubled economic climate, its operating income of €5.6 million was higher than predicted. Financial rating agency Standard & Poor’s confirmed Banque Solfea’s ranking as “A long-term positive outlook.”

**11 Legal and regulatory framework**

**Risks related to the regulation of administered and regulated prices**

Some of GDF SUEZ’s energy and service sales are made in the context of administered prices which are subject to regulations. French laws and regulations, European legislation, and decisions from regulatory bodies (in particular the Commission on Energy Regulation’s decisions on access rates to some infrastructures), impact GDF SUEZ’s revenues, profits or earnings due to the partial impact of supply or non-supply costs on natural gas rates.

For 2005-2007, the principles for setting natural gas rates were specified in the Ministry of Economic Affairs, Industry and Labor’s June 16, 2005 decree. This decree was only applied partially during this period. Moreover, its period of validity ended on December 31, 2007. The rate change principles should therefore be covered by a new regulatory framework. The conditions for implementing rates as part of the future public service contract are subject to discussion with the public authorities.

Failure to respect the principles set out in rate updates exposes the Group to the risk that the following will not be or will only partially be respected:

- the cost of its natural gas supply if oil product prices and/or the euro-dollar exchange rate change;
- non-supply costs related to changes in transmission infrastructure and storage rates and to commercial expenses.

**Sale price of natural gas**

GDF SUEZ sells natural gas based on two price systems:

- administrative rates for customers who have not opted to select their natural gas provider;
- negotiated prices for eligible customers who have opted to select their natural gas provider and who have left the administrative rate system.

**Administrative rates**

There are two types of administrative rates:

- public distribution rates for customers using less than 5 GWh per year and connected to the distribution network;
- subscription rates for customers using more than 5 GWh annually who are also connected to the distribution network or directly to the transmission system network.

The pricing structure is fixed according to French law dated January 3, 2003 and decree no. 90-1029 of November 20, 1990, which regulate the price of fuel sold via distribution and transmission system networks. These provisions state that the rates must cover resulting costs.

**Public distribution rates**

Regulated public distribution rates apply to approximately 10 million customers. There are currently six main categories of public distribution rates: four for residential use or small shared boiler rooms, as well as two seasonally adjusted rates (gas prices are higher in winter than in summer) for medium and large shared boiler rooms. The B1 rate (and equivalents), apply to individual heating, cooking and hot water for domestic purposes. This applies to the majority of customers, approximately 6 million as of December 31, 2008.

**Public service contract**

Starting in 2005, the 2005-2007 public service contract signed by the French State and Gaz de France on June 10, 2005 outlines rate during the defined period, according to the following guidelines:

- quarterly revision of rates;
- average change level in rates to cover:
  - supply costs so the Group can pass fluctuations in gas prices on to customers as they occur on energy markets. Changing supply costs are taken into consideration with every price revision, based on the price of petroleum products for the six-month period ending one month before the price revisions are taken into account,
  - expenses minus supply costs (including the usual margins for this type of activity), calculated based on the necessary costs for providing natural gas to customers via public distribution;
- Gaz de France’s commitment to share the benefits of increased productivity with its customers with a real term 1.4% annual rebate on charges, excluding supply costs.

Should the French State refuse GDF SUEZ’s proposal for a rate adjustment in accordance with contract provisions, the terms of compensation must be settled in consultation with the Company and an acceptable financial arrangement must be agreed within 12 months.

The public service contract is currently being renegotiated.

**Change in public distribution rates**

Until 2004, rates were revised every six months in accordance with the agreements concluded between the French State and Gaz de France. These revisions were made subject to an inter-ministerial decree upon Gaz de France’s request and from January 2003, following the CRE’s opinion.

In accordance with the 2005-2007 public service agreement, the June 16, 2005 decree by the Finance and Energy ministers set out the rate between 2005 and 2007 (quarterly reviewed) and the terms for recovering costs through rates and the conditions for compensation for revenue shortfalls posted in 2004 and 2005.

(1) CAPEB: French confederation for small construction businesses.

(2) Energy Savings Certificate.

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Under the December 29, 2005 order (after the unfavorable opinion of CRE), the French State suppressed the January 1, 2006 rate increase that would have occurred under the June 16, 2005 order.

In an April 28, 2006 order, the French State increased rates by 5.8% (€0.0021 /kWh) effective May 1, 2006. This order was met with an unfavorable opinion from the CRE, which noted that this increase would not have a full effect on changes in Gaz de France supply costs and that the offset for the total earnings deficit was not taken into account.

In a December 10, 2007 decision, the Council of State revoked the December 29, 2005 order, supporting the July 27, 2007 decision of the Competition Tribunal that showed Gaz de France costs had not been covered by regulated sales rates for years.

It specified principles governing its control on rate adjustment decrees for the future and proposed a mechanism which would take into account past, present and future considerations. It instructs the relevant ministers on the day they make their decisions:

- to allow coverage of the average total costs of operators, as evaluated to date;
- to consider an estimate of the variation of costs over the coming year in the light of available data;
- to adjust rates so as there is a significant gap between rates and costs to compensate for below market rates from the previous year within a reasonable timeframe.

**Financial consequences and public distribution rates today**

Since November 2004, rate increases have not fully reflected the total changes in costs that generated a loss of €130 million in 2004, €370 million in 2005 and €511 million in 2006.

The rates were not changed in 2007, which saw lower energy prices in the first half, followed by an upturn at the end of the year. This led to a surplus of €84 million in 2007. These figures resulted in a net sales loss of €927 million at December 31, 2007.

In 2008, the French State increased rates by €0.00173/kWh on January 1 in an order dated December 27, 2007, by €0.00264/kWh in an order dated April 17 and by €0.00237/kWh in an order dated August 12.

The December 2007 and August 2008 orders were enacted after the CRE's unfavorable opinion due to these decisions' incomplete attention to costs.

In addition, the State did not wish for rates to increase on October 1, 2008. For this reason, GDF SUEZ's loss of revenues for 2008 amounted to €679 million.

The situation at the end of 2008 was as follows:

- the total loss of revenues since 2003, and the additional losses as a result of failure to recover costs, mainly supply costs, totaled €1,606 million at December 31, 2008;
- the rates are at a level which is below the level that GDF SUEZ deems necessary to cover all the costs;
- there is no longer any multi-annual framework set out by decree.

The rates decree determining changes to the distributed natural gas regulated rates April 1, 2009 was published in the Official Journal on March 29, 2009. It anticipates a reduction of 0.528 euro cents/kWh, or 11.3% on average, which the CRE approved.

GDF SUEZ hopes that the newest public service contract can be concluded swiftly, particularly with regard to new rates. The Company has already presented its cost-rate allocation formula to the relevant authorities and the CRE.

Year	Annual losses <i>In millions of euros</i>	Total losses 2004-2008 <i>In millions of euros</i>
2004	130	130
2005	370	500
2006	511	1,011
2007	(84)	927
2008	679	1,606

**Subscription rates**

Subscription rates applied to approximately 1,300 customers on December 31, 2008. These rates change quarterly at GDF SUEZ's initiative with tacit approval of the Ministers of Finance and Energy subsequent to review by the CRE. The rate paid by a particular customer depends upon consumption volume and maximum daily flow, as well as the distance between the primary transmission system and the point of delivery (for customers connected to the

transmission network) or between the transmission network and distribution network to which the customer is connected. Rates are subject to quarterly review. Adjustments take into account prevailing euro-dollar exchange rates as well as the price of petroleum products, with an annual adjustment for inflation.

Subscription rates increased regularly throughout 2008 due to rising supply costs and the July 1, 2008 increase in transmission rates on distribution networks.

# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

#### Representative supply cost formula

In 2008, GDF SUEZ updated the representative supply cost formula for regulated rates. This new formula was applied starting on July 1 for public distribution rates (August 15 movement) and on October 1 for subscription rates.

In its December 22, 2008 opinion, the CRE confirmed that the formula gives a fair approximation of GDF SUEZ supply costs. This way, the CRE validated its relevance and the change proposed by the Company.

#### 6.1.3.1.2 GDF SUEZ Energy Europe & International Business Line

The GDF SUEZ Energy Europe & International Business Line is in charge of the Group's activities outside France, in particular the electricity production and energy supply activities.

The Business Line is organized in three divisions:

- the GDF SUEZ Energy Benelux and Germany division, which includes the energy production and sales activities in Benelux and in Germany. It is made up of (i) the entities in charge of the Electrabel's activities in Benelux and the Group's activities in Germany and (ii) the entities and stake holdings in charge of energy sales in Benelux and Germany;
- the GDF SUEZ Energy Europe division is active across the European continent (including Russia), except in France, Benelux and Germany. It is organized by country, each of which is grouped into geographic areas;
- the GDF SUEZ Energy International division aims to use and enhance the Group's expertise in energy activities outside Europe. It is organized by geographical zone (North America, Latin America, Middle East - Asia - Africa).



#### ● NET SALES AND EBITDA FOR THE BUSINESS LINE

Unaudited proforma figures, millions of euros	2008				2007				Gross change as a %
	Benelux and Germany	Europe	International	Total	Benelux and Germany	Europe	International	Total	
Net sales	14,156	8,749	7,623	30,528	11,907	6,609	6,682	25,198	21.2%
EBITDA	1,752	844	1,799	4,395	1,796	709	1,673	4,178	5.2%

#### Energy trading and optimization (portfolio management and trading)

The Group's energy activities conform to its general business model of stabilizing and streamlining margins between production assets, long-term fuel supply contracts, and sales. In addition, the Group is developing energy trading activity in Europe on behalf of itself and its customer base.

On a European level, the GDF SUEZ Energy Europe & International Business Line is a forerunner in energy trading. Thanks to its experience, it can offer products and services by combining the physical supply of electricity and natural gas and financial instruments. It optimizes its global energy margin on markets (fuel

purchases, optimization of electricity produced, and providing sales). The GDF SUEZ Energy Europe & International Business Line is an active operator on most of the electricity markets in Europe and on several natural gas markets, mainly in Belgium, the Netherlands, the United Kingdom and Germany. The GDF SUEZ Energy Europe & International Business Line is also active on the coal and fuel oil markets and on the European CO<sub>2</sub> market.

Under its Central Portfolio Management activities, the GDF SUEZ Energy Europe & International Business Line also develops proprietary trading positions with capped VaR.

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The GDF SUEZ Energy Europe & International Business Line is also actively promoting better electricity market integration in western Europe. As an active participant in these markets, it supports initiatives from the authorities and markets concerned. Since the end of 2006, Powernext (France), Belpex (Belgium) and APX (The Netherlands) have worked concurrently, and these three markets' hourly rates converge more than 60% of the time. The Energy Europe International Business Line appeals to network managers and regulators for this concurrent work to be extended to Germany's EEX market and for an intraday market to be set up between the countries concerned.

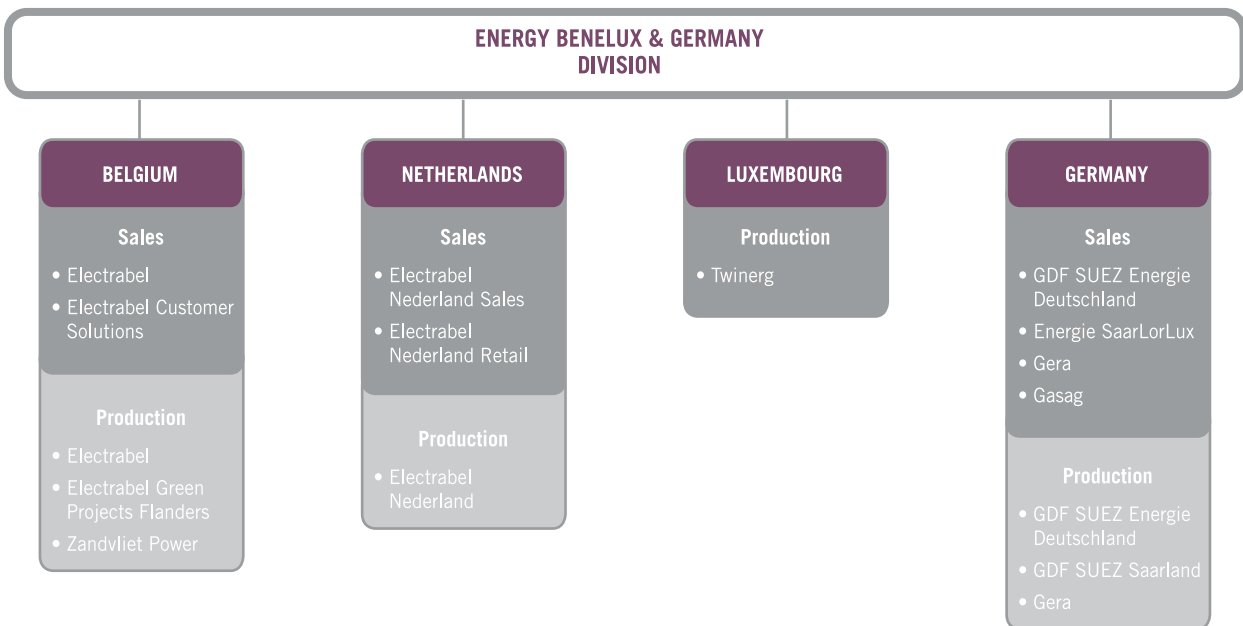
In the United States, the energy trading activities carried out by the companies of GDF SUEZ Energy International are now focused on Central Portfolio Management (CPM). This activity involves integrated

risk management related to the wholesale prices of staple products for the entire asset portfolio involved in electricity production, LNG, and retail electricity contracts of GDF SUEZ Energy North America. As part of its CPM activities, GSENA also takes limited positions through proprietary trading for products and positions related to its operational activities. GDF SUEZ Energy International manages its trading activities in the United States through SUEZ Energy Marketing NA, while the Trading and Portfolio Management entity does this for the Business Line for Europe.

**6.1.3.1.2.1 Energy Benelux and Germany Division**

The Energy Benelux and Germany division operates in the areas of electricity production and sales, natural gas distribution and sales and energy services. These activities benefit from support from energy trading and portfolio management in its Business Lines.

● BENELUX AND GERMANY ORGANIZATIONAL CHART



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## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

#### ● NET SALES AND EBITDA FOR THE BUSINESS DIVISION

<i>Unaudited proforma figures, millions of euros</i>	2008	2007	Gross change as a %
Net sales	14,156	11,907	18.9%
EBITDA	1,752	1,796	-2.5%

#### Energy Benelux and Germany division's strategy

The Energy Benelux and Germany division works in the areas of electricity and heat production and sale, and in the commercialization of natural gas and energy services. It offers lasting, profitable and innovative energy solutions to companies, private individuals and local communities.

On its business markets, it aims to:

- consolidate its lead position in Benelux;
- develop its activities in Germany;
- take full advantage of the potential of the integrated electricity wholesale market in Benelux, France and Germany (Central West Europe regional market).

The division's strategic focus is in developing its activities while respecting national energy policies and using potential synergies from the new GDF SUEZ Group:

- developing a diversified, flexible and sustainable electricity production portfolio that highlights the balance between energy-efficient renewable, fossil and nuclear technologies that allows to take advantage of the market's best opportunities;
- developing a diversified and innovative sales portfolio, with a focus on maximizing value creation through comprehensive energy solutions in partnership with customers and synergies between the various offers (electricity/heat/natural gas/energy services).

#### Summary of significant events in 2008

- implementation of commitments by the Group under the Pax Electrica II protocol (agreement with E.ON on exchanging capacities and the agreement with SPE that gives it the right to additional nuclear production capacity);
- development of renewable energy capacity (various onshore projects, concession request for the construction of offshore wind farms in the North Sea, photovoltaic projects, increase in biomass co-combustion in Rodenhuize, etc.);
- a stronger position in Germany (agreement with Wuppertaler Stadtwerke, an expanded customer portfolio, investment in production in Römerbrücke, production capacity exchange with E.ON);
- continued modernization of the generation facilities (construction or development of new efficient power generation units (Amercoeur, Sidmar, Lanxess in Belgium, Flevo, Maasvlakte in the Netherlands, Wilhelmshaven in Germany, etc.).

#### Activities and regulatory environment

##### Belgium

In Belgium, GDF SUEZ, through its subsidiary Electrabel, has an electricity-generating capacity of approximately 13,500 MW that uses a broad range of energy sources and technologies. This diversity makes the company more flexible, more versatile and less vulnerable to fluctuations in primary energy prices.

In late 2008, a new law was approved to impose a €250 million contribution in 2008 from the nuclear operator (Electrabel), and from other supply companies with nuclear capacity (EDF and SPE). The Group has reservations concerning the measure's legality and proportionality and plans on appealing to the Constitutional Court with a request for revocation. This measure comes up against the agreement concluded between the Belgium State and the Group under the commitments the Group made in autumn 2006 (under Pax Electrica II).

In December 2008, through its subsidiary Electrabel, GDF SUEZ signed a protocol agreement with E.ON on the exchange of electrical production capacities and nuclear energy drawing rights, involving approximately 1,700 MW. The GDF SUEZ Group will take on E.ON's stake in traditional power plants with a total capacity of 991 MW in Germany, and nuclear energy drawing rights for 700 MW in three German nuclear power plants. Electrabel will sell two conventional Belgian electrical power plants to E.ON, with a total capacity of 941 MW (Langerlo and Vilvoorde) and will grant E.ON drawing rights for 770 MW (of which 270 MW will be delivered in the Netherlands) in three nuclear units in Belgium. This transaction will strengthen GDF SUEZ's position in Germany and demonstrates the company's desire to respect the commitments made in Belgium under Pax Electrica II.

In addition, and also in the framework of Pax Electrica II Electrabel signed an agreement in principle with SPE, stipulating that SPE would have a total additional capacity of 635 MW in Belgium, 285 MW of which would be through a long-term contract. This long-term contract has been submitted for the approval of the European competition authorities.

Various other projects are on schedule: conversion of coal unit 1 at the Amercoeur plant into a CCGT plant (420 MW, commissioned in April 2009), construction of the Knippegroen plant at Sidmar (305 MW, blast furnace gas, operational in April 2010) and construction of the Lanxess cogeneration unit (58 MW, commissioned in June 2009). Construction on the Degussa cogeneration unit (21 MW) is being planned and should start in early 2009.

The future of the nuclear generation remains uncertain in Belgium. According to current legislation, no new nuclear power plants can be built, and existing plants must be shut down after 40 years in service, therefore between 2015 and 2025. This decision will most

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certainly have a negative impact on supply security and competition of the Belgian industry. In 2008, the federal Belgian authorities asked a group of eight national and foreign experts to study the ideal energy mix (GEMIX) for Belgium. The study will certainly also contribute to justify a decision to keep the current nuclear plants in operation or to shut them down.

Meanwhile, Electrabel is paying close attention to keeping its nuclear units running safely and reliably. As such, the Energieia '09 project conducted by the Doel plant is preparing the audit that will be done by an International Atomic Energy Agency (IAEA) inspection team in 2010 (OSART). The Tihange plant is preparing the OSART monitoring mission in January 2009.

The number of GDF SUEZ wind parks set up through its subsidiary Electrabel is constantly increasing. There are now six 2 MW wind turbines on BASF site in Zandvliet, and there are two 2 MW wind turbines in Izegem connected to the network. The new parks in Bullange (12 MW), and in Dour (6 MW) produced their first kilowatt hours. The Dour extension (4 MW), Ford Genk (4 MW), La Roche (12 MW) and Zeebrugge (4 MW) projects will further increase wind energy capacity in the near future.

Electrabel signed an agreement with the municipalities of Hannut, Saint Trond, Landen, Lincent, Gingelom and Hélécinne to build one of the largest on-shore wind projects in Belgium. This farm, to be built alongside the E40 motorway, will boast around twenty 2-3 MW wind turbines. It should be commissioned gradually, starting in 2010.

Electrabel and Jan De Nul put two concession requests to the CREG to build off-shore wind farms in the North Sea. Through the first, project Blue4Power Electrabel aims to build the largest off-shore wind farm in Belgium. If the concessions are granted, the first wind turbines could be commissioned as early as 2012.

A second wood pellet processing installation is now operational at the Rodenhuize plant, which doubles this plant's biomass co-combustion capacity; these two facilities have a total combined maximum production capacity of 90 MW.

The Group is continuing the installation of solar panels in cooperation with its industrial customers. After an initial success with Honda in Aalst, it is completing projects at Beaulieu, Delhaize, Sioen and Volvo, giving a total peak capacity of 3 MW.

The Belgian market is very open (total electricity imports and exports represent over 25% of domestic consumption) and, since the deregulation, is characterized by a very high churn rate<sup>(1)</sup> especially in the residential and service segments. In this context, Electrabel has reinforced its sales efforts, in particular by improving the quality of its customer service and by offering competitive pricing. This policy has helped to increase customer loyalty and to take market share from competitors. In 2008, Electrabel won a competitive bidding process for electricity supply to 190 Flemish municipalities.

GDF SUEZ, through its subsidiary Electrabel, is also continuing the extension of its green energy offer in Belgium. It has launched GreenPlus, a 100% renewable, 100% Belgian offer aimed at residential customers. The large-scale marketing campaign has been a great success, with 100,000 customers signing contracts within the first two months. On the professional side, the new

Professional Green and Partner Green offers have won several thousands of customers.

Electrabel is pursuing its commitment to sustainable development. In 2008, the company launched its Belgian plan "Together for less CO<sub>2</sub>", which features ten concrete commitments to cutting its own CO<sub>2</sub> emissions and aims to help its customers reduce their energy consumption and carbon emissions.

In June 2007, Electrabel announced that it would increase natural gas prices for its residential and professional customers, which set off heated media debate. At the request of the Minister of the Economy at the time, the Competition Council began an enquiry into the subject. This investigation was completed in 2008 and showed that Electrabel is not abusing power and that its prices should not be called into question.

Moreover, the CREG suspected Electrabel of unduly increasing its electricity prices by including the CO<sub>2</sub> emission rights price. Electrabel denies this statement based on inappropriate methodology and a number of questionable assumptions. In its opinion, the CREG's argument does not hold up in a deregulated market in which electricity prices are determined by the market.

In view of the independent management of the electricity and gas networks, a specific subsidiary was set up to operate the distribution networks in Wallonia. On October 1, 2008, Electrabel Réseaux Wallonie's staff and activities were transferred to this company, NETWAL, which was fully-owned by Electrabel. On January 1, 2009, the company took on the status of *Opérateur de Réseaux d'EnergieS* (ORES), or Energy Network Operator. The ORES is now owned by the related mixed intermunicipal companies.

On January 1, 2009, Electrabel no longer had any operational activities in the Belgian network management area.

**Germany**

In 2008, Electrabel celebrated ten years of activity in Germany. Over the past decade, it gained a significant commercial position and established a basis for substantial electrical production growth.

It continued various projects to build new power generation facilities in 2008. Construction was started on a new 707 MW pulverized coal plant in Wilhelmshaven (46% yield and CO<sub>2</sub>-capture ready) on the German North Sea coast. Commissioning is planned for 2012; in 2008, Electrabel and E.ON signed a contract that guaranteed its access to the E.ON transport network (380 kV).

Electrabel decided to invest in a new steam turbine for its Römerbrücke plant in Sarrebrück. The new facility will be commissioned in 2010. The new steam turbine will replace an outdated machine and will therefore help modernize the unit. The plant already commissioned a new natural gas turbine three years ago.

The Group also continued its policy of acquiring strategic shareholdings in local companies. Under this policy, Electrabel signed a cooperation agreement with Wuppertaler Stadtwerke (WSW) and acquired a 33.1% stake in WSW Energie & Wasser AG. WSW counts 95% of the population of Wuppertal (360,000) as its electricity customers; it boasts 100% of the population as its natural gas and water customers.

(1) Churn rate: Churn rate, as applied to a customer base, refers to the proportion of customers who leave a supplier during a given time period. These customers are therefore no longer in the supplier's customer base. Gross churn designates only the proportion of customers who leave a supplier and is therefore always a negative number. Net churn designates the proportion of customers who leave but also those who were acquired. This number can therefore be positive or negative.

# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

Starting on January 1, 2008, Energie SaarLorLux, a sales subsidiary in Sarrebrück, began providing its 110,000 residential customers with 100% green electricity (Ökostrom), independent of the price formula they had chosen. The transition was automatic and did not result in extra cost for the customer.

Energie SaarLorLux received an excellent score for its customer-oriented contracts from independent consumer portal Verivox. Verivox studied 3,000 electricity contracts from Germany's 200 leading energy providers and then compared various points such as the contract term, conditions for payment, pricing guarantees, price transparency and the customer's right to terminate its contract in the event of a price increase. The study proved that Electrabel's customers' confidence in their energy provider is justified.

Since 1998, GDF SUEZ has held a 31.6% stake in GASAG, a natural gas provider in the state of Berlin, through an exclusive concession contract that was extended until the end of 2013. GASAG is also active in the state of Brandenburg, primarily through its stakes in Erdgas Mark Brandenburg (75.1%) and Stadtwerke Forst, acquired in 2008, and of which GASAG holds 74.9%. Since 2007, GASAG has delivered natural gas to customers outside its historical area of operation, in Kiel, Lübeck and North Rhine-Westphalia.

At December 31, 2008, GASAG counted a total of around 700,000 natural gas customers, thanks to its 11,400 km of distribution networks and underground storage of 1.1 billion m<sup>3</sup>. Its consolidated gas sales totaled 21.7 TWh in 2008. GASAG is committed to innovative projects, such as the construction of a biogas facility, VNG, the development of micro-cogeneration and solar thermal facilities paired with natural gas supply.

#### Netherlands

Through its subsidiary Electrabel Nederland, Electrabel is currently the Netherlands' leading electricity producer, with a share of approximately 20% of the country's generating capacity. Its production is sold to industrial consumers and suppliers; Electrabel also sells energy on the residential market under the Rendo Energy and Cogas Energy brands. It launched a campaign beginning 2009 aimed at marketing its energy on the Dutch residential market under the Electrabel brand.

It has launched several projects to build new coal and natural gas units. It has started construction on the new Flevo power plant, composed of two units including a natural gas turbine and a steam turbine assembled on a single axle. Each unit provides a total power of 436 MW with an energy yield of 59%. Commissioning is planned for 2010.

Electrabel also has permission to build a new coal/biomass plant on the Maasvlakte (Rotterdam). This plant can perform combined combustion using biomass, and it will be "CCS ready" (Carbon Capture and Storage).

Starting in 2010, the existing Gelderland plant will cut its CO<sub>2</sub> emissions following the construction of a new facility that allows to use up to 25% biomass in co-combustion with coal. Construction starts in January 2009 and the facility should be operational in February 2010.

The Netherlands' largest on-shore wind farm is being built near the Eems plant. It will include a total of 88 wind turbines; Electrabel is installing nine turbines of 3 MW on its land. In mid-December 2008, the first wind turbine was connected to the network.

#### Luxembourg

In December, Luxembourg subsidiary Twinerg obtained triple certification, ISO 9001 (quality), ISO 14001 (environment) and OHSAS 18001 (occupational health and safety), for its CCGT plant in Esch-sur-Alzette. Doing so, this plant, which was already ISO 14001-certified, moves up a level by introducing an IMS (Integrated Management System). This system presents many advantages, such as a stronger guarantee of process quality and the systematic integration of regulatory obligations or the obligation for continuous improvement processes.

#### 6.1.3.1.2.2 Energy Europe Division

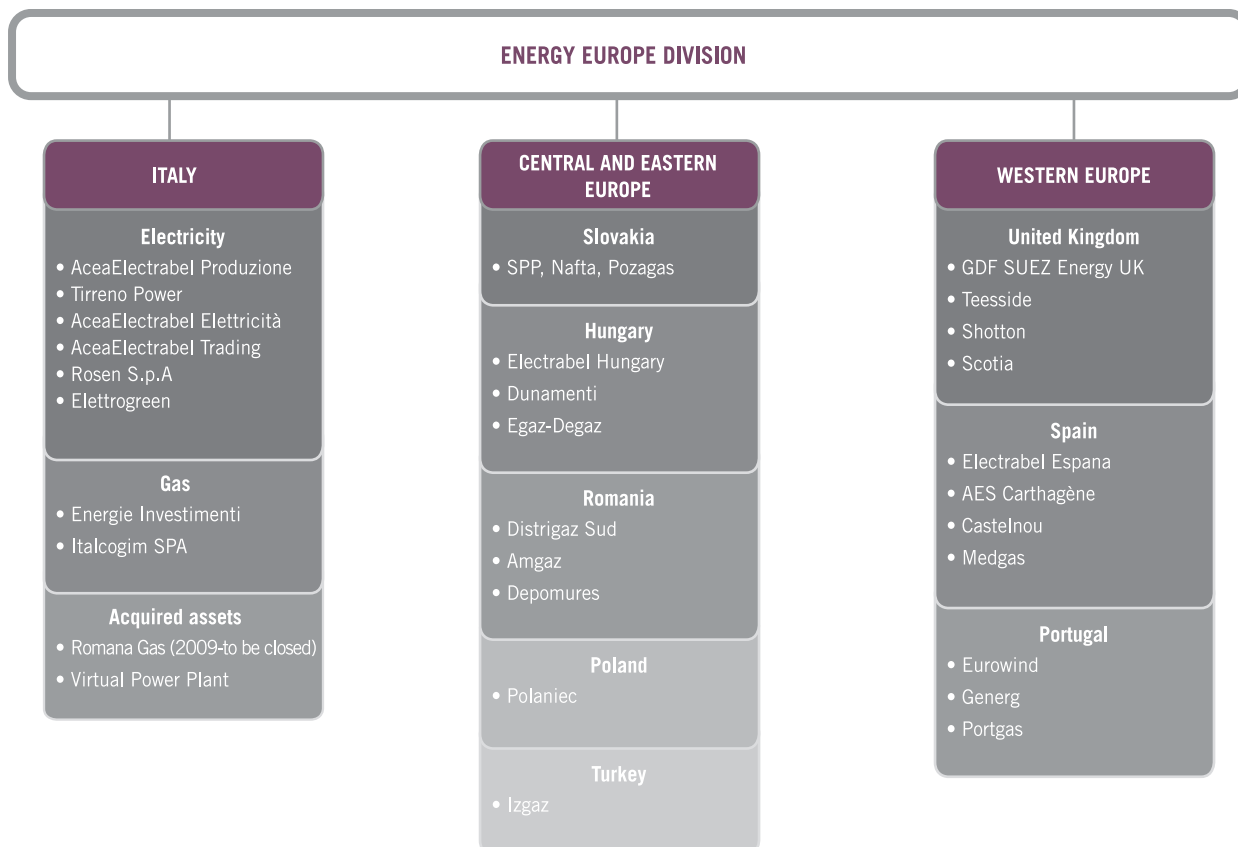
The GDF SUEZ Energy Europe division includes the Group's energy activities in Europe (outside France, Belgium, Netherlands, Luxembourg and Germany).

The Energy Europe Division's main businesses are energy production, commercialization and distribution. Its activities are divided into three business units (BUs):

- Italy;
- Central and Eastern Europe;
- Western Europe.

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● NET SALES AND EBITDA FOR THE BUSINESS DIVISION

<i>Unaudited proforma figures, millions of euros</i>	2008	2007	Gross change as a %
Net sales	8,749	6,609	32.4%
EBITDA	844	709	19.1%

**The business division's strategy: combining growth and value creation**

In countries where it already has a strong or significant position (Italy, Romania, Hungary and Poland) the business division is putting together a growth policy on its markets, alongside possible partners, to reinforce its local foothold and integration. For other countries in the area, including the United Kingdom, Spain, Portugal, Turkey and Greece, the business division is continuing an opportunistic development objective.

Across the entire area, the GDF SUEZ Energy Europe business division's objectives are as follows:

- making a positive contribution to balancing the Group's holdings:

- geographic balance,
- fuel balance between natural gas, coal, wind, hydraulic,
- a balance of activities: electricity production, commercialization and sales, and regulated activities;
- combining integration and value creation:
  - natural gas/electricity convergence for supply and through the dual offer in Italy, the United Kingdom and Hungary,
  - Europe-wide rationalization,
  - pooling skills after the merger in the United Kingdom, Romania, Hungary and Italy;

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# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

#### An operator that is active across the entire energy chain

GDF SUEZ's Energy Europe business activity has more than 10,000 employees:

- it is the fourth-leading energy provider in Italy;
- it is a major player in Central Europe;
- it operates 12.8 GW of electrical capacity with an annual production of 50 TWh (2008 data, using full data); 10.2 GW and 40 TWh respectively using the Group share method;
- it sells 130 TWh of natural gas and 41 TWh of electricity;
- it provides 3.3 million customers with natural gas and 1.5 million customers with electricity;
- it manages a 58,900 km natural gas network and distributes 81 TWh of energy.

#### 2008 highlights:

- Virtual production capacity

At the end of 2008, GDF SUEZ contracted 1,100 MW of virtual power production (VPP) capacity with ENI in Italy, based on the combined cycle natural gas model (CCGT) for a 20-year period starting on January 1, 2009.

- Romana Gas

GDF SUEZ acquired Romana Gas, a natural gas distributor in Rome and in six small concessions connected to Rome's natural gas distribution network. Romana Gas is Italy's largest natural gas concession. Its 5,300 km-long distribution network distributes 1.5 million m<sup>3</sup> of natural gas to 1.3 million delivery points. The final agreement was signed on October 30, 2008, subject to the concession municipalities' approval.

- Izgaz

On August 14, 2008, GDF SUEZ won the call to tender for the privatization of Izgaz, a Turkish natural gas sale and distribution company and Turkey's third-leading natural gas distributor after the Istanbul and Ankara distributors. The deal took effect on January 20, 2009.

- Scotia

In late 2008, GDF SUEZ acquired the UK's Scotia Wind Craigengelt Limited with a view to developing a wind farm south-west of Stirling, in central Scotland, with a total capacity of 24 MW by early 2010.

#### 6.1.3.1.2.2.1 Italy Business Unit

The Italy Business Unit currently includes the following activities:

- production and sale of electricity (primarily through the subsidiaries held under the partnership with Acea);
- natural gas commercialization through Energie Investimenti;
- natural gas distribution via Italcogim Spa and Romana Gas (2009).

The scope of these activities could change or be extended in 2009, under the terms of the current discussions with the local partner.

#### Electricity production, distribution and sale

##### Partnership with Acea

GDF SUEZ's holdings in Italy are primarily based on a solid partnership with Acea, which is owned by the municipality of Rome. Both companies are subject to an exclusivity agreement in the electricity production and trading sectors and in electricity and natural gas sale. In production, they work through the AceaElettrabel Produzione Group (1,560 MW installed) and through the 50% joint stake in Tirreno Power S.p.A (3,260 MW). In sales, they cooperate through AceaElettrabel Elettricità.

Through the partnership with Acea, GDF SUEZ holds:

- a 70% stake in the AceaElettrabel Produzione Group. This company, either directly or through its subsidiaries, controls five thermal power plants, a series of dams and two wind farms with a total of 1,560 MW installed capacity. AEP produced more than five TWh in 2008;
- a 35% stake in Tirreno Power. This company owns three thermal power plants and a series of dams with a total capacity of 2,876 MW at end 2008. In 2008, Tirreno Power produced approximately 13 TWh
- a 50% stake in AceaElettrabel Trading, an Italian portfolio management and gas and electricity asset rationalization company;
- a 40% stake in AceaElettrabel Elettricità, which is specialized in energy sales to 1.5 million customers in Rome. In 2008, the company sold 15 TWh. It also owns stakes in four regional companies that sold 2.5 TWh in 2008.

##### Other activities

Outside of the exclusivity agreement, GDF SUEZ owns:

- Rosen S.p.A, a cogeneration plant in which Solvay owns a minority shareholding. Rosen (356 MW) produced 2.5 TWh in 2008;
- Elettrogreen, a trading company specialized in green electricity and environmental products such as green and white certificates and CO<sub>2</sub> quotas.

#### Natural gas distribution and commercialization

##### Energie Investimenti

GDF SUEZ is also active in the electricity and natural gas sale sector through Energie Investimenti, in which the Group holds a 60% stake, with the rest belonging to Camfin. Energie Investimenti is Italy's third-leading operator in terms of natural gas volume sold, with sales of 3.5 million m<sup>3</sup> of natural gas and 0.1 TWh of electricity to around 1 million customers in 2008.

##### Italcogim Spa

At December 31, 2008, the Group owned a direct stake of 29% of voting rights in Italcogim, which was 51%-owned by the Covati family through UBS Fiduciaria and 20%-owned by Energie Investimenti. In December 2008, the Group exercised a purchase option on all the shares and voting rights owned by the Covati family, and the transaction was finalized on January 22, 2009. The company operates a 13,762 km-long distribution network with 465 concessions across the Italian peninsula (100% data).

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**Outlook**

*Virtual production capacity*

At the end of 2008, GDF SUEZ contracted 1100 MW of virtual electric production capacity (VPP) with ENI in Italy, based on the combined cycle natural gas model (CCGT) for a 20-year period starting on January 1, 2009.

*LNG terminal*

GDF SUEZ is continuing development on a floating LNG terminal to be installed in the North Adriatic Sea, approximately 30 km from the coast. The terminal's initial capacity should be five billion m<sup>3</sup> annually, which may be extended at a later date. The authorization process has begun. The project could be carried out as part of a partnership that is in the process of being set up.

*Storage*

The Italy Business Unit is also active in the storage business. Its main project, developed in partnership with Gas Plus and Acea, is a storage site located near San Benedetto del Tronto (in the Marche region) with potential capacity of 500 million m<sup>3</sup>.

**6.1.3.1.2.2.2 Central and Eastern Europe Business Unit**

**Slovak Republic**

*Natural gas transport, distribution and commercialization*

SPP is an integrated group active in the international transit, purchase, transport, storage, distribution and sale of natural gas in Slovakia. The Group and E.ON, through their joint (50:50) subsidiary Slovak Gas Holding BV ("SGH"), hold a 49% stake in SPP. The Slovakian State holds the remaining stake. GDF SUEZ and E.ON, under the agreement that ties SGH to the Slovakian State, have joint control of the company (four members of the Management Board out of a total of seven).

In 2008, the Eustream transit subsidiary transported around 73 billion m<sup>3</sup> of natural gas through its infrastructures from the Ukrainian border to Austria and the Czech Republic. This network is 2,268 km long and has a total annual capacity of approximately 95 billion m<sup>3</sup>. It includes four compression stations, with a total power of over 1,000 MW. In November 2008, Eustream signed a natural gas transit agreement with Gazprom Export covering the next 20 years, with a volume of more than 1,000 billion m<sup>3</sup> transported.

SPP Distribucia, a subsidiary of SPP, owns and operates the Slovakian gas transport and distribution network, which measured a total length of 31,537 kilometers at December 31, 2008.

SPP performs the natural gas sale activities, which represented 59 TWh for all types of customers, including 1.5 million residential customers during the year ended December 31, 2008 (full data).

*Natural gas storage*

SPP holds 56% of Nafta, owner and operator of natural gas storage facilities in Slovakia with 2.1 billion m<sup>3</sup> of capacity. SPP also holds a 50% stake in SPP Bohemia, which directly or indirectly controls storage facilities in the Czech Republic, representing 750 million m<sup>3</sup> in capacity.

SPP owns a 35% stake in Pozagas, whose other shareholders are Nafta (35%) and GDF SUEZ (30%). This company owns the exclusive rights for commercialization of some Slovakian storage capacities. These capacities are partially operated by Nafta through a contract service and represent a useful capacity of 645 million m<sup>3</sup>.

**Hungary**

*Electricity production*

The Group owns an electricity-producing business in Hungary through its subsidiaries Electrabel Hungary (holding) and the Dunamenti plant. This plant has a total electrical capacity of 1,676 MW, based on natural gas and/or fuel oil. In 2008, total production was 3.2 TWh. This plant is Hungary's largest conventional electrical production site in terms of installed capacity. It is also undergoing partial renovation of facilities in order to improve yield in particular.

*Natural gas distribution and commercialization*

Egaz-Degaz Zrt commercializes and distributes natural gas. In 2008, it sold 16 TWh of natural gas to all market segments. On December 31, 2008, it operated 22,700 km of network and supplied 798,000 customers in over 650 municipalities.

**Romania**

*Natural gas distribution and commercialization*

Through Romania Gaz Holding (80%-owned by GDF SUEZ, 10%-owned by IFC and 10%-owned by the BERD), GDF SUEZ owns 51% of the Romanian commercialization and natural gas distribution company Distrigaz Sud, with the rest of this company's capital held by the Romanian state (37%) and *le fond de la propriété* (12%). This shareholding gives the Group a major foothold on a promising market, in a country that joined the European Union on January 1, 2007.

The legal separation of the distribution and marketing activities of Distrigaz Sud took effect on March 1, 2008. Distrigaz Sud Retele's sales amounted to approximately 35.8 TWh in 2008. On December 31, 2008, the company supplied natural gas to 1,226,000 customers through its 14,740 kilometers of distribution network.

*Natural gas storage*

GDF SUEZ owns 65% of Amgaz, Romania's third-leading storage operator with a current capacity of 50 million m<sup>3</sup> of natural gas. The Group owns a 59% stake in Romania's second-leading natural gas storage operator, Depomures, which manages the Tirgu Mures site in northern Romania. This depleted reservoir storage facility has a capacity of 300 million m<sup>3</sup> of natural gas.

**Poland**

*Electricity production*

The Group is Poland's sixth-leading electricity producer.

It operates the coal power plant in Polaniec (1,654 MW net installed power). This electricity-producing plant is the fifth largest in Poland and the largest in the south-east. It also uses biomass-coal co-combustion, which means that part of its production is renewable. It has recently invested in commissioning a flue gas desulfuration (FGD) facility.

In 2008, the Polaniec plant produced 5.7 TWh, 0.6 TWh of which is considered renewable.

The Group is also specialized in the sale of electricity to industrial customers and on the wholesale market (6.5 TWh in 2008), in electricity financial engineering services, fuel trading, industrial cogeneration and energy outsourcing.

In June 2008, the Group sold its minority stake in EC Wybrzeze (336 MW cogenerator) near Gdansk.

# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

#### Turkey

##### *Natural gas distribution and commercialization*

On August 14, 2008, GDF SUEZ won the call to tender for the privatization of Izgaz, a Turkish natural gas sale and distribution company and Turkey's third-leading natural gas distributor after the Istanbul and Ankara distributors. The deal took effect on January 20, 2009.

Izgaz distributes and markets natural gas to 200,000 residential, service and industrial customers in the Kocaeli region, 80 km east of Istanbul, with an estimated natural gas volume of 1.7 billion m<sup>3</sup> in 2008.

#### 6.1.3.1.2.2.3 Western Europe Business Unit

##### United Kingdom

GDF SUEZ Energy UK is the commercialization and electricity production entity in the United Kingdom. It produces electricity and sells energy.

##### *Electricity production*

###### Teesside

On February 25, 2008 prior to the merger, Gaz de France and SUEZ acquired a joint venture, Teesside Power Limited, which operates the electric plant on the Wilton industrial site in northeast England. This plant, which has a total power of 1,875 MW is currently the most powerful combined-cycle plant in Europe.

###### Shotton

The Shotton electrical plant (210 MW combined cycle/cogeneration), acquired in late 2003, produces electricity and steam from natural gas combustion (2 natural gas turbines, 1 steam turbine).

###### Scotia

In late 2008, GDF SUEZ acquired the UK's Scotia Wind Craigengett Limited with a view to developing a wind farm south-west of Stirling, in central Scotland, with a total capacity of 24 MW by early 2010.

##### *Natural gas and electricity commercialization*

The commercialization business represents 35 TWh in natural gas sales and 9 TWh in electricity sales to the industrial and service market segments.

##### Portugal

##### *Electricity production*

###### Eurowind

The Group is present in Portugal's wind-based electricity production sector through four fully-controlled entities, with a total of 214 MW installed and operating power:

- Parque Eolico do Fafe, acquired in September 2005 (106 MW);

- Parque Eolico de Serra do Rallo, acquired in April 2007 (32 MW);
- Parque Eolico do Mourisca, acquired in June 2007 (38 MW);
- Parque Eolico de Nave, acquired in late 2007 (38 MW).

##### Generg

GDF SUEZ owns a 42.5% stake in Generg, a group of companies with 436 MW wind power and 33 MW hydroelectric power. Generg also has 240 MW in wind projects under development (to be operational by 2011) and 16 MWp of photovoltaic solar projects (under construction).

##### *Natural gas distribution*

###### Portgãs

GDF SUEZ owns a 25.4% stake in Portgãs (12.7% through Elyo SA and 12.7% owned directly by the Group), which commercializes and distributes natural gas and propane in a concession in northern Portugal (from Porto to the Spanish border) and has more than 180,000 customers.

##### Spain

##### *Electricity production and commercialization*

###### AES Carthagera

The Group holds a 26% stake in the 1,200 MW combined-cycle plant (three steam turbines and three natural gas turbines) built by American company AES in Carthagera (Spain). At this plant, Gaz de France supplies gas under a tolling contract, pursuant to which it supplies gas and receives, in return, the electricity generated by the power plant, covering the entire output of the facility. Electricity sales, mainly on the market, totaled 4 TWh in 2008.

###### Castelhou

The Castelhou plant, 100%-owned by the Group, is a combined-cycle plant (one natural gas turbine, two steam turbines) with 790 MW that was commissioned in July 2005. In 2008, it produced 3.6 TWh, mainly sold on the wholesale and the ancillary services markets.

###### Electrabel España

Electrabel España provides energy transactions for other Group companies in Spain.

##### *Natural gas*

###### Medgaz

The Group owns a 12.5% stake in the Medgaz consortium, which owns the 8 billion m<sup>3</sup> gas pipeline development project between Algeria and Spain; the gas pipeline includes an on-shore portion in Algeria (Hassi R'Mel in Beni Saf) and an off-shore segment between Beni Saf and Almeria, Spain. Construction is underway, and the commissioning transactions will take place in autumn 2009.

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**6.1.3.1.2.3 Energy International Division**

The Energy International Division is responsible for the Group's energy activities outside Europe and Russia. Electricity and natural gas are the core businesses of this division with activities in electricity production, trading, marketing and sales, and on the gas side, transport, distribution, marketing and sales, including LNG regasification terminals.

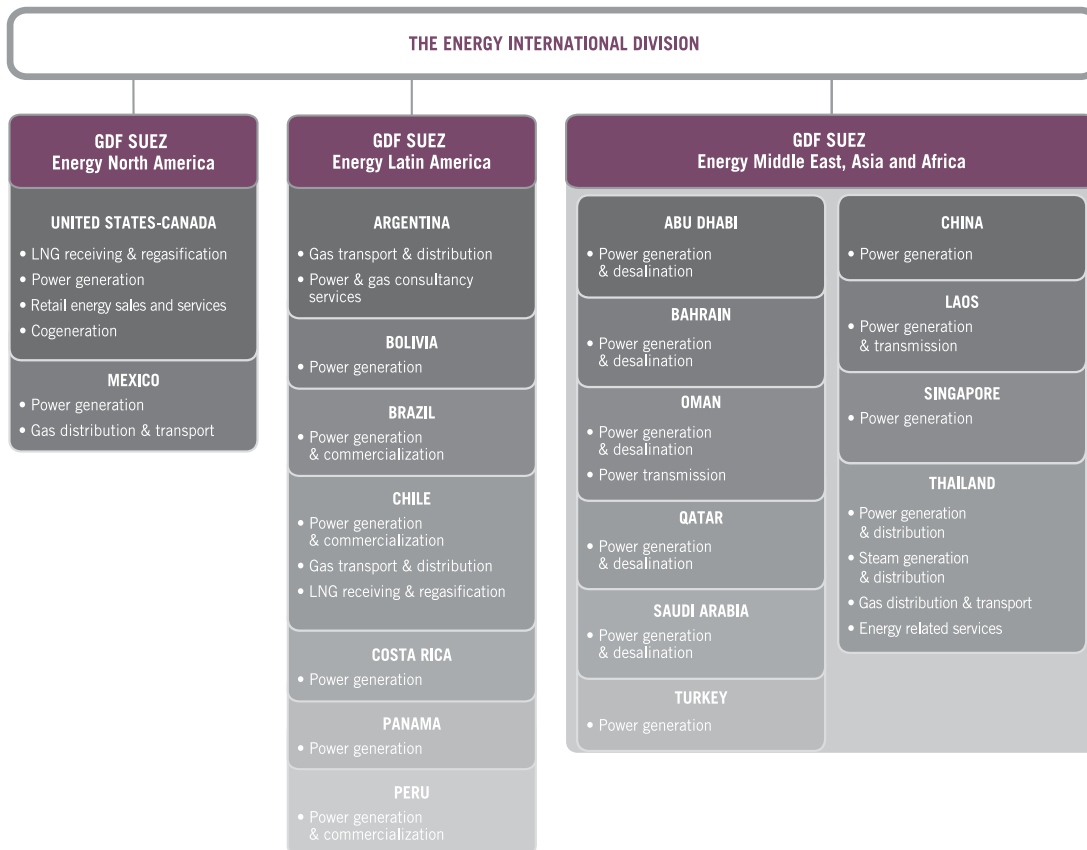
The Energy International Division is organized into three regional entities that are coordinated by a central organization located in Brussels.

The three regions are as follows:

- North America, where GDF SUEZ Energy North America, a wholly-owned subsidiary of GSEI based in Houston, manages

all the Group's electricity and gas activities in the United States, Canada, and Mexico, including LNG regasification facilities;

- Central and South America, where GDF SUEZ Energy Latin America, which is located in Florianopolis (Brazil) and which is a wholly-owned subsidiary of GDF SUEZ, manages all the Group's gas and electric activities in Brazil, Chile, Peru, Panama, Costa Rica, Bolivia and Argentina;
- Middle East, Asia and Africa, where GDF SUEZ Energy Asia, a wholly-owned subsidiary of GDF SUEZ based in Bangkok, manages all of the Group's electricity, gas, and sea water desalination activities in Thailand, Laos, Singapore, Turkey, and the countries of the Gulf Cooperation Council.



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# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

All together, GSEI (GDF SUEZ Energy International) activities represented nearly €7,623 billion of revenues in 2008 for a total workforce of 6,397 people.

#### ● NET SALES AND EBITDA FOR GDF SUEZ ENERGY INTERNATIONAL DIVISION

<i>Unaudited proforma figures, millions of euros</i>	2008	2007	Gross change as a %
Net sales	7,623	6,682	14.1%
EBITDA	1,799	1,673	7.5%

#### Business strategy and growth GDF SUEZ Energy International

The main strategy guidelines can be summarized as follows:

- priority given to organic growth around primary focal points of GDF SUEZ Energy International (United States, Mexico, Brazil, Chile, Peru, Panama, Thailand, Turkey and the Gulf Cooperation Council), and if opportunities arise in other countries such as South Africa, Indonesia, Vietnam and Colombia, where strong growth in demand is predicted;
- development of sales and marketing activities with special focus on industrial customers;
- management of exposure and volatility through active portfolio management in order to optimize risk-return.

#### Month-by-month highlights

##### January 2008

**Chile** - GDF SUEZ Energy International and Antofagasta Minerals, a Chilean industrial group, signed an agreement for the supply of up to 150 MW and related energy for the new Esperanza mine starting in 2011. For this demand, a **second power unit of the Central Termoeléctrica Andina (CTA)** in Mejillones is being constructed.

##### February 2008

**Chile** - GNL Mejillones, the 50/50 joint venture company of GDF SUEZ Energy International and Codelco - the world's main copper company - obtained the environmental permit for its **LNG terminal project in Mejillones, Northern Chile**. Construction of the jetty and on-shore LNG regasification terminal was launched an emission with the laying of the first stone ceremony in March 2008 in the presence of Michelle Bachelet, President of Chile. The LNG terminal will have an emission capacity of 5.5 million m<sup>3</sup> of gas per day, sufficient to produce 1,100 MW of electricity. The first gas should be delivered end 2009 / early 2010.

**Canada** - GDF SUEZ Renewable Energy NA signed a 20-year Power Purchase Agreement with **New Brunswick** Power Distribution and Customer Service Corporation to supply electricity from a new 99 MW wind farm project that GSRENA will construct, own and operate. The revenue generated over the life of the agreement is expected to be approximately CAD 500 million (€340 million).

##### March 2008

**Qatar** - GDF SUEZ Energy International, in a consortium with Mitsui, was awarded an independent power and water project in the industrial city of Ras Laffan on Qatar's northeast coast. The consortium has a 40% stake in the project, **Ras Laffan C** will provide 2,730 MW of electricity and 11,933 m<sup>3</sup>/h of desalinated water. Total revenues of the project company over 27 years will be USD 22.7 billion. Ras Laffan C should be fully operational by April 2011 and is scheduled to be semi-operational by May 2010.

##### April 2008

**Brazil** - GDF SUEZ Energy International signed a €380 million project financing contract for the 1,087 MW **Estreito** hydro plant under construction in Brazil. Tractebel Energia finalized the acquisition of **Ponte de Pedra**, a 176 MW hydro power plant on the Correntes River, between the States of Mato Grosso do Sul and Mato Grosso.

**Peru** - Enersur started the construction of the third unit of the Chilca Uno thermal power plant, adding approximately 193 MW to the existing 348 MW of installed capacity. This new unit should be commissioned on September 2009.

##### May 2008

**Brazil** - SUEZ Energy International won a concession to build, own, operate and market the 3,300 MW greenfield hydropower project, **Jirau**. This project will help respond to the growing demand for electricity in Brazil. The total investment cost will be about EUR 3.3 billion.

**USA** - SUEZ Energy International announced the acquisition of a 30.45% interest in the gas-fired 575 MW **Astoria** Energy Power Plant, located in the Queens Borough of New York City. The second phase for a 575 MW unit has reached an advanced development stage.

##### June 2008

**Peru** - EnerSur placed, in the Peruvian debt market, the second and third tranches of its corporate bond program, totaling USD 40 million.

##### July 2008

**Brazil** - Tractebel Energia acquired two small hydro-electric plants with a total installed capacity of 50.3 MW. The two plants **Rondonópolis** (27 MW) and **José Gelázio** (24 MW), which are already in commercial operation, are located in Mato Grosso state.

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**Abu Dhabi** - GDF SUEZ Energy International signed a 25-year power and water purchase agreement for **Shuweihat 2**, a greenfield, natural gas-fired facility that will deliver 1,510 MW of electricity and 18,942 m<sup>3</sup>/h of water. Completion and start-up of the plant is scheduled for 2011. GDF SUEZ Energy International owns 40%.

In January 2009, GDF SUEZ Energy International and its partner Abu Dhabi Water and Electricity Authority secured a USD \$900 million financing facility for the facility.

#### August 2008

**Oman - The Initial Public Offer (IPO) of Sohar Power Company** (SPC) successfully closed on July 30. In total, 9,730,000 SPC shares were sold for a total of USD 35 million. The total subscription was in excess of OMR 280 million (approximately USD 725 million), approximately 21 times oversubscribed.

**Qatar** - GDF SUEZ Energy International, in a consortium with Mitsui, Shikoku Electric Power Company, and Chubu Electric Power Company, and its partners Qatar Electricity and Water Company, and Qatar Petroleum completed the limited-recourse financing of the **Ras Laffan C** power and water desalination project. The total investment cost is expected to be over USD 3.8 billion.

**Brazil** - Tractebel Energia, Açúcar Guarani and Mega Consultoria, through their respective subsidiary companies, established the consortium **Andrade** that sold 20 average MW under a 15-year power purchase agreement. The power will be produced by a new 33 MW plant fuelled by sugar cane biomass to be built from September 2008 to April 2010 at the municipality of Pitangueiras, in the Northeast region of the state of São Paulo.

**Bahrain** - GDF SUEZ Energy International won the contract to build, own, and operate the **Al Dur 1**, a greenfield, natural gas-fired installation that will deliver 1,233 MW of electricity and 9,092 m<sup>3</sup>/h of water. Its completion is scheduled for 2011. GDF SUEZ Energy International and Gulf Investment Corporation (GIC) each hold 50% in the consortium. The Electricity and Water Authority (EWA) is the sole off-taker of the plant output as stipulated in the 20-year Power and Water Purchase Agreement (PWPA).

#### September 2008

**USA** - GDF SUEZ Energy International, through its North American subsidiary, signed an agreement to acquire **FirstLight Power Enterprises, Inc.** FirstLight owns and operates a unique portfolio of 15 power generation plants – primarily pumped storage and traditional hydro facilities – and has a state-of-the-art natural gas peaking facility under construction. Together, these 16 facilities have a combined capacity of 1,538 MW located in Massachusetts and Connecticut. The acquisition was completed on December 26, 2008.

**Singapore** - GDF SUEZ Energy International – holding 30% in a consortium with Marubeni Corporation, The Kansai Electric Power Co., Kyushu Electric Power Co. and Japan Bank for International Cooperation (JBIC) executed an agreement, with Temasek Holdings, for the acquisition of all shares in **Senoko Power**. Senoko is Singapore's largest power generator and also a large retailer in the industrial and commercial segment of the market. Senoko owns and operates a portfolio of generation units representing a combined capacity of 3,300 MW.

**Thailand** - Glow Energy signed a 25-year, 660 MW power purchase agreement with the Electricity Generating Authority of Thailand (EGAT) for GHECO, the country's second coal-fired IPP power plant. Construction preparation of this project began in July, and the plant is scheduled to start commercial operation in November 2011. Glow Energy is also expanding its cogeneration business, developing two new projects.

In December, Glow Energy secured a THB 3,000 million seven-year corporate loan from Siam Commercial Bank to finance the expansion of the cogeneration business.

#### October 2008

**Chile** – GDF SUEZ Energy Andino and Grupo Enhol (Eólica Navarra) signed an agreement to build a new 38 MW wind farm at **Monte Redondo**, located 320 kilometers north of Santiago in Chile's Central Interconnected System (SIC).

**North and Latin America** - GDF SUEZ Energy International completed the acquisition of **Econergy International**, a US company listed in the UK, focused on renewable energy projects in Latin America (mainly) and North America. The total installed capacity of Econergy International amounts to 261 MW of small hydro, wind and coal bed methane projects in operation or construction. The projects are located in Brazil, Bolivia, Costa Rica, the United States, Mexico and Chile.

**US** - SUEZ Energy Resources NA has been chosen by the **City of Dallas** to provide 100% of the City's electricity for municipal needs through December 2010. Similar to SUEZ Energy Resources NA's initial one-year contract signed in 2007 with the City, 40% of the energy supply will be sourced from renewable energy, primarily wind.

#### November 2008

**China** - GDF SUEZ secured two carbon trading deals for a total estimated volume of about 1.6 million Certified Emissions Reduction (CER) covering the period 2009-2012. The CERs will be generated through two new hydro projects (48 MW + 99 MW), which are expected to be operational by the end of 2009. The transaction was formalized with Emission Reduction Purchase Agreements (ERPA) signed between GDF SUEZ and two subsidiaries of the China Guodian Group Corporation, one of China's 5 largest electricity producing companies.

**Argentina** - The Government ratified the agreement signed by Litoral Gas (a gas distribution company in which SEI has a 64.16% stake) and the Regulator (UNIREN) regarding the tariff renegotiation of the license, that still has to be implemented once Enargas (Regulator) defines the final tariff structure.

#### December 2008

**Panama** - GDF SUEZ Energy Central America inaugurated the 83 MW **Cativá** thermo power station, representing an investment of USD 100 million.

**Chile** - GDF SUEZ Energy Andino raised a USD 393 million loan over 17 years to finance the new 150 MW **Central Termoeléctrica Andina** (CTA) power station that is being constructed at Mejillones.

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## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

#### January 2009

**The Philippines** - Emerald Energy Corporation (a subsidiary of the GDF SUEZ Group) notified PSALM, the State-owned company which oversees the privatisation of power assets in the Philippines, that it was terminating the asset purchase agreement for the 600 MW electric coal-fired plant in Calaca..

#### February 2009

**Brazil** - Tractebel Energia inaugurated the new 241 MW hydroelectric power plant at São Salvador. Total investment in the plant was around €307 million.

**Chile** - 100 GWh/year from the 38 MW Monte Redondo wind farm was sold at an auction for a 14-year term starting January 2010. Construction work on the Monte Redondo wind farm began at the start of the year.

**Brazil** - Tractebel Energia inaugurated the 18 MW Pedra do Sal wind power plant in the state of Piauí, in north-eastern Brazil.

#### Description of activities and their regulatory environment

##### ● ELECTRICITY – CAPACITIES INSTALLED AND SALES

	Sales 2008 <sup>(a)</sup>		Net electricity installed capacities in MW <sup>(b)</sup> at Dec. 31, 2008		Net electricity capacities under construction <sup>(c)</sup> at Dec. 31, 2008	
	GWh	%	MW net	%	MW net	%
North America	44,768	40.2	7,117	25.2	849	5.2
Latin America	44,049	39.5	10,063	35.5	5,493	32.8
Middle East and Asia-Africa	22,618	20.3	11,145	39.3	9,916	61.0
<b>TOTAL</b>	<b>111,435</b>	<b>100.0</b>	<b>28,324</b>	<b>100.0</b>	<b>16,259</b>	<b>100.0</b>

(a) Sales are consolidated according to accounting rules.

(b) Electricity installed capacities correspond to 100% of corporate capacities within the scope of consolidation (equity method, proportional consolidation, and full consolidation).

(c) Electricity capacities under construction are those approved by GDF SUEZ, that the company is contractually bound to construct or acquire, and include planned retirements.

##### ● GAS – SALES AND CUSTOMER PORTFOLIO

	Sales 2008 <sup>(a)</sup>		Customer portfolio	
	GWh	%	Number	%
North America	125,623	75.5	378,681	39.7
Latin America	40,813	24.5	575,569	60.3
Middle-East and Asia-Africa	0	0	0	0
<b>TOTAL</b>	<b>166,436</b>	<b>100.0</b>	<b>954,250</b>	<b>100.0</b>

(a) Gas sales (including quantities distributed and shipped on behalf of third parties) and customers are accounted for according to consolidated accounting rules.

#### North America

In North America, GDF SUEZ Energy North America (GSENA) manages the activities of GSEI through various companies that form an integrated value chain ranging from LNG importation and regasification, to wholesale and retail electricity sales to commercial and industrial customers.

The company operates the Everett, Massachusetts LNG regasification facility in which it owns the entire capacity and

all associated rights. The company also provides LNG to the EcoElectrica complex located in Puerto Rico. The LNG is resold in the form of natural gas to electric utilities, wholesalers, and local retailers. The company has begun construction of the Neptune LNG terminal, a LNG offloading facility, which will be built in US territorial waters off the coast of Massachusetts. Construction of the pipeline lateral for the Neptune project was started in the summer of 2008, when all the connections were installed and buried. Pipeline

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completion is expected to take place in the summer of 2009. The buoy system (buoys, anchors, flexible risers and mooring lines) will also be installed this coming summer. All offshore construction is expected to be completed in late 2009. Construction of the SRV (Shuttle and Regasification Vessel) SUEZ Neptune is ongoing in South Korea and its delivery is expected during the last quarter of 2009; delivery of the second SRV SUEZ Cape Ann should follow 6 months later. Once the complex is completed, the Neptune tanker vessels, which are specially designed and equipped with on-board regasification equipment, will have offshore mooring facilities and will be able to provide between 11 and 21 million cubic meters of natural gas per day to the New England market.

The company owns and/or operates 72 electrical power plants and cogeneration, steam production, and cold-water units. The energy produced by these facilities is sold to distribution and industrial companies under long-term power purchase agreements (PPA – Power Purchase Agreements) or as “merchant capacity” on the wholesale market.

The company operates a growing portfolio of renewable fuelled power generation plants, including 200 MW of wind (in operation & construction), and 125 MW of biomass. The company is a leading renewable supplier in North America, the second largest biomass company in North America, and is developing additional capacity in Canada. Additionally, the company is responsible for development of other renewable resources through out North America, including Canada and Mexico.

The company’s retail affiliate is active in 9 states (Connecticut, Illinois, Maryland, Maine, Massachusetts, New Jersey, New York, Pennsylvania, Texas, as well as Washington, DC). The affiliate continues to expand its customer base. In terms of size, the company ranks fourth among North American power retailers.

In Mexico, following the completed merger of Gaz de France and SUEZ, the Group’s gas activities include six gas distribution companies from the two groups (Guadalajara, Querétaro, Tampico, Matamoros, Puebla, and Mexico DF) and two transport companies (Mayacan, Bajio). In this country, the group also manages three steam-electricity cogeneration projects. The combined operations in Mexico make GDF SUEZ a significant player in the region, and Mexico continues to be a core part of the Group’s strategy.

In December 2008, GSENA successfully invested and integrated more than 1,500 MW of power generation assets in New England through the acquisition of FirstLight Power Enterprises Inc. FirstLight’s assets include the Northfield Mountain pumped-hydro storage facility located in Northfield, Massachusetts; the coal-fired Mt. Tom Station in Holyoke, Massachusetts; and 13 additional predominantly hydro facilities in Connecticut and Massachusetts. FirstLight is also developing a gas-fired peaking plant in Waterbury, Connecticut and other power projects to serve Connecticut, and Massachusetts FirstLight has 235 employees.

In terms of activities, the business climate in which GDF SUEZ Energy North America operates varies considerably from one state to another depending on the regulatory system, which ranges from full deregulation and fragmentation of the energy sector value chain to complete vertical integration, accompanied by strict regulations. In the case of natural gas, where wholesale markets have been deregulated, GDF SUEZ Energy North America is able to operate under equitable competitive conditions.

With regard to electricity, regional differences are much more noticeable. In regions such as New England, (ISO-NE), Pennsylvania, New Jersey, and Maryland (PJM); New York (NYISO); and Texas (ERCOT), the deregulation of wholesale electricity sectors and retail electricity sales is quite advanced and appears irreversible. “Spark spreads” (profit margins per MWh for one benchmark combined cycle unit) and the attractiveness of commercial operations have generally produced positive results. In those regions, the company’s generation and retail activities are highly active and well placed in the market. In others, such as the southeastern and the western United States, deregulation is proceeding much more slowly and is even stagnant, so the outlook is less positive for the commercial sector. GSENA has been successful in negotiating PPA agreements with the existing public service companies.

As part of our North American Strategy, GSENA sold its Chehalis Power Plant, a 520 MW natural-gas-fired power generation facility in Chehalis, Washington, to PacifiCorp. Financial terms are not being disclosed. GSENA continues to focus on its core markets including ERCOT, and the Northeast (PJM, NEPOOL, and NYISO) as well as Canada and Mexico.

Latin America

In Latin America, the regulatory environment and the degree of market deregulation vary according to country. In that region, GSEI’s main presence is in Brazil and Peru. The company is also active in Chile, Panama, Bolivia and Argentina.

Brazil

In Brazil, a ruling was issued in 2001 on the privatization of the electricity sector; 80% of the production capacity remained the property of the State while the major part of the distribution segment was transferred to the private sector. From 2003 to 2005, the Brazilian government introduced a new regulatory model for the electricity market. In general, this model gives the federal government a larger role at all levels of the system (regulatory agency, network management and wholesale market). A pooling system was created to have a transparent framework for the signing of long-term contracts. The pool, which operates like a risk-sharing instrument among producers, is a mandatory supply channel for distribution companies. The model involves auctions (“leilões”) held regularly by the government; concessions for the construction of new production capacities (especially hydro-electric) are awarded to those bidders prepared to offer the lowest rates. In practical terms, the auctions are held in several phases. Thus the distinction is made between “old” (existing capacities) and “new” (new developments and expansions of existing sites) energy, with the latter being awarded longer term contracts.

Private and public producers have participated actively in the new energy auctions, and the government is convinced that the system is an effective magnet to attract the investments needed for the growth of the country’s energy production.

In Brazil, GSEI owns 68.71% of Tractebel Energia (TBLE) – the country’s largest independent energy producer, which operates an installed capacity of 7,491 MW. GSEI sells its electricity mainly through long-term contracts entered into with distributors and industrial customers (bilateral agreements). In 2008, TBLE acquired seven power plants - one large hydro unit, three small hydro units and two wind farm totaling 291 MW. The Company also succeeded in winning an auction for the construction of a 33 MW sugar cane

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## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

bagasse-fueled facility in partnership with a local sugar and ethanol producer.

In 2008, the company won the 3,300 MW hydropower project Jirau. The project has signed 30-year PPAs with distributors for 70% of its 1,975 MW assured energy, with the price set through an auction.

These contracts will start on January 2013, but the plant is scheduled to start commercial operation by April 2012.

During the anticipation period in 2012, and for the remaining 30% assured energy beginning 2013, GDF SUEZ will be able to sell its 50.1% stake output in the free industrial market at higher prices than the prices of the regulated market with distributors.

The construction of Jirau will demand 9 billion Reais of investments, and the civil works started on December 2008, after the release of the Installation Environmental Licence by the federal environmental agency Ibama.

The Brazilian development bank BNDES will finance some two thirds of the construction costs.

#### Peru

Since the end of the 1990s, Peru has gradually restructured and opened up its electricity market, shifting towards privatization and efforts at deregulation. A significant portion of the country's hydroelectric production is still in the hands of the Government, which owns ElectroPeru, the country's largest electric utility. Nonetheless, even in the absence of new privatizations, the private sector is gaining more influence as nearly all new investments in generation capacity are done by the private sector.

GSEI owns a 61.73% stake in EnerSur, which has an installed capacity of around 835 MW (and another 192 MW under construction) and which in 2008 was the second largest private generator for its installed capacity and and gross generation with 17% market share. GSEI also owns a minority stake (8%) in TGP (the Camisea gas pipeline).

Moreover, in 2008, EnerSur continued to diversify its contract portfolio by adding around 35 MW in contracts with unregulated customers.

In April 2008, EnerSur commenced the construction of the third phase of the Chilca1 thermal plant located 50 km south of Lima. The plant is currently operating two open cycle natural gas turbines corresponding to an installed capacity of around 350 MW. The third phase encompasses another gas turbine of 195 MW, which should be commissioned in September 2009.

Aside from Chilca 1, EnerSur operates two other thermal plants: Ilo1, with an effective installed capacity of 215 MW and using residual steam, fuel oil and diesel, and Ilo21, a coal-fired plant with a capacity of around 135 MW. These plants are located in Ilo, 1,000 km south of Lima. EnerSur also owns a concession for the operation of the Yuncan hydroelectric plant with an installed capacity of 130 MW.

EnerSur has a total of approximately 610 MW contracted out of which 320 MW are with regulated contracts. The most important customers among such clients are Luz del Sue and Edelnor, the first and second largest distribution companies in Peru. The average duration of these contracts is approximately 2 years.

#### Chile

The regulatory system in Chile has been relatively stable since the 1982 reform, the year in which the electricity sector was fully privatized.

Several changes in early 2004 were made primarily to clarify certain transmission problems. Now the Corta Law (*Ley Corta*) clearly defines the way in which transmission costs are to be charged. In 2005, the Corta Law II was added to promote stability and flexibility in regulated prices, in response to the gas crisis in Argentina.

GSEI has a substantial presence in the Chilean market (in partnership with local companies). The Company is one of the main operators, with a stake of 33.25% in Electroandina, the largest producer of the SING (Northern Chile) network, which has an installed capacity of 938 MW, and a stake of 27.38% in Edelnor, the third largest producer of the SING network with an installed capacity of 681 MW.

Gasoducto Norandino, of which the Group owns 84.7%, owns and operates a gas pipeline designed to import from Argentina to northern Chile an annual volume of 3.22 billion m<sup>3</sup> of natural gas intended mainly for electricity production. GSEI also owns a smaller distribution company, Distrinor, which is backed by Norandino and targets industrial demand.

The gas crisis suffered by Argentina since 2004 definitely affected the business in Chile. As a reaction, GSEI is investing in diversifying its product mix in northern Chile by building two new coal-fired power plants (150 MW each) and an LNG import and regasification terminal (with a nominal capacity of 1.9 billion m<sup>3</sup>/year of natural gas). The terminal is developed by GNL Mejillones SA, which is held equally by GSEI and Codelco, one of the world's leading copper producers and a partner of GSEI in northern Chile. The Global Gas and LNG Business Line will supply the LNG for the first three years of the terminal's operations.

#### Argentina

GSEI is active in Argentina through Litoral Gas, one of the country's four largest distribution companies, which boasts nearly 575,000 customers, in which GSEI has a 64.16% stake, and Energy Consulting Services, a sales and consulting company that is 46.7% owned by GSEI.

#### Panama

GDF SUEZ Central America manages the acquired interests in Panama (BLM) and established a platform for business development in Central America.

In a demand growth scenario and within an incentive regulatory framework, GDF SUEZ Central America signed a 10-year PPA for the construction of a 115 MW hydro power plant in Panama, called Dos Mares. The construction started in August, 2008.

#### Costa Rica

Through the acquisition of Ecoenergy, GDF SUEZ Central America manages the construction project involving a 50 MW wind farm in Costa Rica, called PEG, expected to be commissioned in the 2<sup>nd</sup> quarter of 2009.

#### Bolivia

Through the acquisition of Ecoenergy, GDF SUEZ Central America manages Empresa Electrica Corani. It owns and operates two hydroelectric power plants (Corani and Santa Isabel) with a capacity of 147 MW. It is the largest hydro generator and the only one with a dam that can regulate the flows.

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On January 25, 2009, a referendum for a new constitution was approved in Bolivia a new legislation governing electricity could be introduced during 2009 or 2010 to comply with this new Constitution.

**Middle East, Asia and Africa**

In the Middle East, Asia and Africa, GDF SUEZ Energy International is now active in Thailand, Laos, Singapore, the Gulf State countries and Turkey.

**Thailand**

In Thailand, GSEI holds a 69.11% stake in Glow Energy which has total capacity of 1,708 MW of electricity, 967 metric tons of steam and 3,660 cubic meters/hour of processed water.

Glow Energy provides electricity to EGAT, the country's primary public service company, as well as electricity, steam and water treatment for around thirty large industrial customers (most of which are subsidiaries or affiliates of international groups or reputable Thai companies) in the Map Ta Phut region, east of Bangkok. Glow Energy has been listed on the Thai stock exchange since April 2005.

To meet increasing electricity demand from its industrial customers, Glow Energy started construction in February 2007 of a new 115 MW coal-fired production unit to be commissioned in December 2009. In August 2008, Glow also began a new 382 MW gas-fired production unit which will start operating at the end of 2009. Since December 2008, the capacity of the new 115 MW coal-fired unit was fully sold to clients and Glow has also secured commitments for most of the 382 MW gas-fired unit.

A new 660 MW coal-fired power plant, Gheco One, is currently under construction with a commercial operation date scheduled for November 2011. Gheco One was selected from four applicants on December 7, 2007 as part of an invitation to tender process and will supply electricity to EGAT through a long-term contract. Glow Energy will own 65% in Gheco One, with the remaining 35% belonging to Hemaraj Land and Development Company Limited ("Hemaraj").

In October 2008, shareholders of Glow Energy approved the transactions to acquire Houay Ho Project, a 153 MW hydroelectric power plant in Laos, from Stopper Finance B.V. and Houay Ho Thai Company Limited, both subsidiaries of GDF SUEZ. Glow Energy will hold a 67.25% stake in the Houay Ho project, through direct and indirect shareholding. The project sells nearly all its production to EGAT under a long-term contract. The transactions are scheduled to be completed during the first half of 2009.

GDF SUEZ Energy International owns a 40% stake in PTTNGD Co. Ltd., which distributes natural gas to industrial customers in the Bangkok region. The company is 58% held by PTT PCL, the primary oil, gas, and petrochemical company in Thailand.

**Singapore**

In 2008, GDF SUEZ in a consortium with Marubeni, Kansai, Kyushu and Japan Bank for International Cooperation (JBIC) acquired Senoko from Temasek for the sum of 3.65 billion Singapore dollars (€1.76 billion). Senoko is Singapore's largest power generator with about 30% of generation market share in 2007.

GDF SUEZ Energy International and Marubeni will each hold 30% of the capital of Senoko. Kansai and Kyushu will hold 15% each and JBIC the remaining 10%. Senoko Power owns and operates

a unique portfolio of generation units offering a combined capacity of 3,300 MW.

In addition, Senoko Energy Supply ("SES") – a subsidiary of Senoko – is responsible for selling electricity to eligible customers. SES currently serves 17.5% of eligible customers and offers various expansion opportunities in the future.

**Countries of the Gulf Cooperation Council**

GSEI now occupies the following positions (in terms of operations or construction) in the countries of the Gulf Cooperation Council:

- a 32.81% ownership share in UPC, a 288-MW power station located in Oman. The current divestment from UPC is required by the authorities prior to the Barka 2 commercial operation date;
- a 20% ownership share in Taweelah A1, a desalination water facility generating 1,360 MW of power and 385,000 cubic meters of desalinated water a day in Abu Dhabi. Taweelah A1 has begun an expansion project to increase the capacity of its facilities to 1,592 MW. The additional power should be available in May 2009;
- a 55% stake in Sohar, a 586 MW combined cycle turbine and a desalination plant with a capacity of 150,000 m<sup>3</sup>/day. The complex, which had operated as a single cycle since May 2006, reached full commercial operating capacity in May 2007;
- a 47.5% stake in the Barka/Al-Rusail project. Under this project, GDF SUEZ Energy International acquired an existing 665 MW plant in Al-Rusail, while starting construction in Barka of a new project comprising a 678MW electrical power plant and a sea water desalination facility with a capacity of 120,000 m<sup>3</sup>/day. The financing package for the Barka/Al-Rusail project was finalized during 2007; the Barka project should be operational by April 2009;
- a 45% stake in Al Ezzel, the first independent electrical power plant project to be created under the privatization program implemented by the Government of Bahrain. The 954 MW combined cycle plant, which began operations in May 2006, reached full commercial operating capacity in May 2007;
- a 30% stake in Al Hidd, also located in Bahrain. This plant involves a combined cycle gas plant with 938-MW of power and a desalination facility with a capacity extended to 273,000 m<sup>3</sup>/day in early 2008;
- a 20% stake in Marafiq, a project with a capacity of 2,745 MW and 760,000 m<sup>3</sup>/day, located in Jubail, in northeastern Saudi Arabia. The financial package for the Marafiq project was finalized during 2007. Construction has begun and the complex should be commissioned in 2010;
- a 20% stake in Ras Laffan C, a project with a capacity of 2,730 MW and more than 286,000 m<sup>3</sup> of desalinated water per day, located in Qatar. GSEI and its partners were declared preferred bidders for the project in March 2008 and the financial closing took place was achieved on the 8<sup>th</sup> of August 2008. Ras Laffan C should be operational by April 2011 with a partial start-up date scheduled for May 2010;
- GDF SUEZ owns 40% of Shuweihat 2, a natural gas-fired installation that will deliver 1,500 MW of electricity and 454,610 m<sup>3</sup>/day of water. The remaining 60% of the project is owned by

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## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

Abu Dhabi Water and Electricity Authority (ADWEA). GDF SUEZ secured financing for the project on January 6, 2009. The completion and start-up of the plant is scheduled for 2011;

- in August 2008, GDF SUEZ won the contract to build, own and operate the Al Dur 1 power generation and seawater desalination plant in the Kingdom of Bahrain. Al Dur 1 is a natural gas-fired installation that will deliver 1,234 MW of electricity and 218,000 m<sup>3</sup> of water/day. Completion of the Al Dur 1 plant is scheduled for 2011. The financial closing of the project has still to be reached.

#### Other

In addition, GSEI owns 95% of a 763 MW combined cycle plant located in Turkey.

#### *Competitive environment*

##### North America

2008 was marked by two issues: the worsening financial conditions in North America and rapidly declining commodity prices.

The deteriorating financial conditions started with the bursting of the housing market bubble and migrated to the banking sector, as the cost of credit increased and liquidity significantly declined. The effect on our power markets was a decrease in market liquidity, a reduction in the number of tradable counterparties, and a shortening of the term. The trading activities of financial institutions in power and gas stagnated in the second half of 2008. GDF SUEZ, was largely unaffected, due to stable parent Company credit rating.

During the second half of 2008, the commodity price complex in North America suffered a rapid decline, including natural gas, power, steel, etc. Between July and December 2008 NYMEX price for natural gas decreased 61%, followed by power spark spreads, and the fall in oil prices around the world. Combined with expectations of lower demand, (result of US recession), the impact on commodity prices has been very strong. Commodity price volatility has increased, as has the level of uncertainty surrounding future demand.

As oil prices soared in the first half of 2008, LNG cargoes shifted to Asian destinations as contracts priced against oil provided to be more lucrative than the Atlantic basin destinations. Competition was fierce for limited spot supplies for the first half of 2008 given the demand from Asia combined with supply issues, Asia managed to secure most incremental volumes and continued to do so through end of year. However, as oil prices fell rapidly in the second half of 2008, Atlantic and Pacific cargoes of LNG regained price parity, while expectations of demand for natural gas in North America were tempered by economic recession. The most active LNG import facility in the US in 2008 was the Group's facility in Everett.

Contracting economic conditions are expected to continue through 2009. These conditions have delayed the need for new construction, depressed demand, and impacted the evolution of publicly traded companies. The breakdown of the credit markets has increased the cost of capital for most power and gas players, which could lead to higher prices during economic recovery.

The supply equation for natural gas changed slightly during 2008. As the cash price and future expectations surrounding high NYMEX prices rose during first half of 2008, domestic production of natural gas from unconventional sources increased and satisfied growing demand, without importing additional LNG. However, as the forward

price of natural gas fell below \$5-\$6/mmbtu in Q3 – Q4 2008, production from unconventional sources became less competitive.

Although demand for renewable energy remains strong, based on individual state-based Renewable Portfolio Standards, developers of new assets faced difficulties in the second half of 2008. Lack of financing and a challenging tax equity market, combined with lower power prices and changing government subsidies, made projects difficult to move forward.

The United States encountered its first domestic CO<sub>2</sub> price in Q4 2008, with the official launching of the Regional Green House Gas Initiative in New England. This cap and trade system signed by 10 states in the Northeast held its first auction in September 2008, during which time the published price for CO<sub>2</sub> was \$3.07/ton. GSENA has plants in New England, and for those that emit CO<sub>2</sub>, satisfied its RGGI requirements.

While a recovery of electricity production from nuclear and coal-fired power plants may represent an additional threat for the long-term profitability of combined cycle plants, in a context of high gas prices, the political and environmental concerns related to those fuels are difficult obstacles to overcome. Different regional and local authorities are now applying policies limiting carbon emissions (RGGI & WSCI). However, as yet, nothing has been decided in Washington regarding federal CO<sub>2</sub> policy. The content and timeline of any future legislation on carbon emissions remain uncertain.

##### Latin America

The demand for energy has continued to grow regularly in most Latin American countries. Reserve margins have tightened in most of the continent's markets and are starting to be very limited.

Price trends moved in line with the trends observed for fuels and in a context of tight margins. However, every market has specific characteristics. The Pacific axis (Chile, Peru) is behaving in a more orthodox manner; prices in those regions are influenced primarily by hydrological conditions, liquid fuels prices and the cost of new infrastructures. On the Atlantic coast, Brazil can be observed attracting new private investment, while Argentina favours public investment. In both of these countries, the governments have succeeded in limiting price increases (in Argentina, this is the case for residential customers, but the industrial sector must face rate hikes). These countries have made it a priority to delay and implement only low increases in electricity and natural gas prices, at least for existing power plants. Complex specific regulations have been developed to encourage and provide an additional incentive for the construction of new infrastructures.

Owing to economic growth and the value of natural gas as an alternative fuel, the demand for gas for power generation has continued to grow in all South American markets. This growth in gas demand was however not complemented with the necessary E&P investments and thus gas supply did not follow demand. This situation gave way to the first LNG imports ever in the region during winter time in Argentina and Brazil. In Peru gas demand caused bottlenecks in the transport system which forced the regulatory authorities to enact regulations to cope with the associated extra costs.

The oil and gas companies have continued their investments in Peru and Brazil but have put projects on hold in Argentina and Bolivia owing to interference by the Government and uncertainty regarding

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the future regulatory framework. This situation has led to market fragmentation and unmet needs in Chile, Uruguay and Argentina.

Latin America has been going through a period of relative prosperity despite the uncertainty related to the current economic downturn. The forecasts are being revised downward but so far, growth is still expected. The experience of past economic crises showed that the Latin American countries had a stagnant or low increase in energy demand during times of recession.

**Middle East, Asia and Africa**

In the Middle East, Asia and Africa, GDF SUEZ Energy International acts mainly as an independent utility. In these areas, it now sells its production to public distribution companies or directly to industrial clients.

Despite the global economic downturn, the demand for energy continues to be strong in many countries in the region.

Viable investment opportunities in independent electricity production projects should also emerge in other regions of Asia, the Middle East and Africa, especially in Indonesia, Vietnam and South Africa.

According to the World Economic Outlook 2008, power plant construction will need to continue in emerging economies, regardless of economic conditions. In China and India, as well as countries such as South Africa, Indonesia and Vietnam, utility companies and independent power producers have been struggling just to keep up with rising demand for electricity. The current financial crisis is not expected to affect long-term investment in energy worldwide, but could lead to delays in bringing current projects to completion.

Therefore viable investment opportunities in independent electricity production projects should emerge in those countries. However, other countries in the region are experiencing a slowdown, such as Singapore or Thailand where the government is reviewing its power development plan.

The state-owned Electricity Generating Authority of Thailand (EGAT) believes the economic slowdown will reduce power demand, especially from the industrial sector in the eastern region and has therefore cut its estimated 5-year CAGR power demand from 5.5% to 3% for the next 2 to 3 years. The Energy Planning Policy Office (EPPO) has revised the country's power development plan (PDP) accordingly.

Three of the four private generating projects awarded in December 2007 following Thailand's second tender for IPP projects have agreed to delay the start of electricity sales under their Power Purchase Agreement (PPA) with EGAT.

The fourth and most advanced of the IPP projects – Gheco One - will not experience any delay in its electricity sales to EGAT as it has already secured financing and started construction, with operation planned for 2011.

In order to maintain private interests in the power sector, the National Energy Policy Council approved a revised biomass and cogeneration electrical power plant plan in late January 2009 in order to launch a call for tender, several months ahead of the

originals schedule. According to the regulator, these plants should be operational in 2013.

Industry officials stress that while there is a correlation between GDP growth and electricity demand, the correlation in Singapore is not as strong as in many countries of the region given the high level of development of the island. In addition, other factors also come into play, such as temperature.

Given the current situation, some generating companies have put expansion plans on hold. Tuas Power, for instance, has delayed plans for a clean coal/biomass cogeneration plant by six to twelve months. Sembcorp has also announced it was holding back on its plan to build a second cogeneration plant.

Demand levels for power and water in the Gulf Cooperation Council (GCC) region are still rising, despite the global slowdown. IPP opportunities in the countries of the GCC are still considered attractive, owing in particular to the clarity of the regulatory framework and the maturity of the customary contractual framework in those markets. However, the project financing availability has contracted given the current economic environment, slowing down the financial closure of some projects.

**6.1.3.1.3 Global Gas & LNG Business Line**

**6.1.3.1.3.1 Missions, organization and main highlights in 2008**

The Global Gas & LNG Business Line's main mission is to supply (energy and shipping) natural gas – including LNG – to various GDF SUEZ units, through its exploration-production business, supply contracts and organized markets.

It manages and optimises the balance between GDF SUEZ's natural gas resources and needs through the management of its resource portfolio and trading.

It develops GDF SUEZ's activities in the LNG sector directly or in connection with other Group entities.

It also develops a natural gas and LNG trading business.

Finally, it markets energy (natural gas and electricity) offers and related energy services to the Group's largest customers in Europe.

The main strategic objectives of the Global Gas & LNG Business Line are:

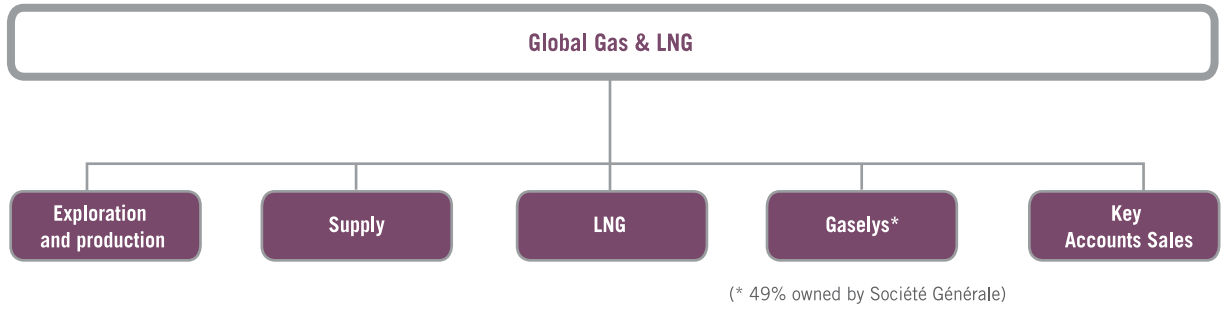
- increasing hydrocarbon production and reserves and developing and diversifying a portfolio of natural gas supply to meet its markets' needs;
- consolidating GDF SUEZ's international leadership in LNG, by leveraging on its expertise in every segment of the LNG value chain;
- continuing to develop sales to the Group's largest customers;
- optimizing the value of its assets within a stringent risk management framework.

# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

The Global Gas & LNG Business Line is made up of five Business Units (BUs) and support and steering functions, with a total of around 2,200 staff.



#### ● NET SALES AND EBITA FOR THE BUSINESS LINE

<i>Unaudited proforma figures, millions of euros</i>	2008	2007	Gross change as a %
Net sales for the Business Line	22,394	17,284	29.6%
Net sales Group share	10,827	8,096	33.7%
<b>EBITDA</b>	<b>3,715</b>	<b>2,344</b>	<b>58.4%</b>

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Key figures 2008:

- natural gas purchases: 658 TWh;
- oil and gas production: 51.3 Mbep;
- hydrocarbon reserves at December 31, 2008: 703.7 Mbep;
- natural gas sales to large European accounts: approximately 200 TWh.

**Main highlights in 2008**

**March**

Reception of the Group's first LNG cargo produced in Snøhvit; this first cargo, loaded by the Provalys LNG tanker, which was specially designed for the weather conditions of Norway's Arctic regions, opened a new LNG supply route representing 700 million m<sup>3</sup> of natural gas per full-year.

**April**

Signature of a long-term supply contract with Shell for a total volume of 10 billion m<sup>3</sup> of natural gas under the form of LNG, to be delivered starting in 2014 at the latest.

**June**

Signature of a partnership with PowerGas to develop and operate the first LNG terminal in Singapore. GDF SUEZ will hold a 30% stake in the company project.

**September**

Acquisition from NAM of a set of oil and gas exploration & production and transport assets in the Dutch North Sea near the NOGAT gas pipeline, GDF SUEZ becoming the operator of NOGAT with a 30% stake.

Acquisition of a 20% stake in an exploration-production license in Libya. Acquiring this license allows GDF SUEZ to enter Libya's gas upstream.

Acquisition of a 15% stake in an off-shore exploration-production license in Azerbaijan (Yalama prospect). This will be GDF SUEZ's first operation in Azerbaijan.

**October**

Under a broader assets swap agreement, GDF SUEZ and ENI concluded the following supply contracts:

- an annual 4 billion m<sup>3</sup> of natural gas deliverable in Italy over 20 years;
- an annual 900 million m<sup>3</sup> of natural gas in the form of LNG in the Gulf of Mexico over 20 years;
- an option for an annual 2.5 billion m<sup>3</sup> of natural gas over 11 years deliverable in Germany.

Under this agreement, ENI also sold GDF SUEZ a set of exploration & production assets in the United Kingdom, the Gulf of Mexico, Egypt and Indonesia.

**November**

Conclusion of a partnership with Cameroon's Société Nationale des Hydrocarbures (SNH) for the development of a liquefied natural gas (LNG) export site.

First delivery by GDF SUEZ's of an LNG cargo to the Zeebrugge LNG terminal after its capacity was extended.

Launch by Powernext of an organized spot and futures gas market in France. GDF SUEZ, a Powernext shareholder, will be market maker in this market through Gaselys, to develop natural gas trade and foster development of a new natural gas price reference on the European markets.

**December**

Offloading by GDF SUEZ of an LNG cargo on the Isle of Grain terminal during commissioning of the terminal's phase 2. The Group has an annual regasification capacity of 3.3 billion m<sup>3</sup> in Great Britain.

Ten-year extension of the natural gas sale contract (approximately 300 million m<sup>3</sup>) with Gaznat, a natural gas supply company in French-speaking Switzerland.

GDF SUEZ wins the LNG Award 2008, which distinguishes the company that has made the largest contribution to the development of the LNG industry in the past year.

Discovery of natural gas in the southern basin sector of the UK continental shelf (Juliet well).

**6.1.3.1.3.2 Exploration & Production BU**

**1 Key indicators**

At December 31, 2008, the Group's proven and probable reserves amounted to 703.7 million barrels of oil equivalent ("Mboe"), 70% of which was natural gas and 30% of liquid hydrocarbons. The Group's annual production of natural gas and liquid hydrocarbons was 51.3 Mbep in 2008.

**2 The Business Unit's missions**

In order to diversify and secure its access to hydrocarbon resources, to benefit from a greater share of the natural gas chain's added value and to encourage its development in LNG, the Group has its own reserves, primarily in the North Sea, Germany and North Africa, some of which are fed by sources it operates for itself and for its partners.

**3 The business unit's activities**

**3.1 Legal framework for Exploration-Production activities**

The Group operates its exploration-production activities within the framework of licenses, concessions or production sharing contracts, and/or other types of contracts drawn up with the public authorities or national companies of the countries involved. Depending on the type of license or contract, or legislation in force, GDF SUEZ undertakes to implement an exploratory program and, if successful, is entitled to work the fields involved for a certain amount of time, subject to approval of a development plan by national authorities. Throughout the production period, GDF SUEZ must pay royalties to those authorities, hand over part of the production, pay a share of its profits and/or pay certain taxes specific to the oil and gas sector.

In accordance with oil and gas market practice, GDF SUEZ normally operates in association with one or more other oil and gas companies. Under current partnership contracts, one of the parties is generally designated as operator, meaning that it is

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### 6.1 MAIN ACTIVITIES

responsible for conducting daily operations (with the other parties' approval required for important subjects such as the adoption of a development plan, major investments, budgets or sales contracts for the group). Only those companies that have been recognized by the local authorities may be designated as operators.

GDF SUEZ has been recognized as operator in most countries where it works. This referencing allows it to take part in exploration-production in these countries with a management role, not only in terms of technical matters but in terms of strategy as well (investment, development).

The tables below show all of the Group's proven and probable reserves (including developed and undeveloped reserves) <sup>(1)</sup>, and, on the dates given, their geographic breakdown:

#### ● CHANGE IN THE GROUP'S RESERVES <sup>(2)</sup>

<i>Mboe</i>	2006	2007	2008
Proven and probable reserves	626.8	666.9	703.7
of which natural gas	488	492.5	494.4
of which liquid hydrocarbons	138.8	174.4	209.3
Equity affiliates' share of proven and probable reserves	58.5		
<b>TOTAL</b>	<b>685.3</b>	<b>666.9</b>	<b>703.7</b>

#### ● CHANGE IN THE GROUP'S RESERVES BY COUNTRY: NATURAL GAS

<i>Mboe</i>	Natural gas		
	2006	2007	2008
Germany	121.2	104	87.6
Norway	228.8	228.2	236.3
United Kingdom	64.9	49.4	51.9
Netherlands	93.2	99.5	114.4
Other	10.2	11.3	4.2
<b>TOTAL</b>	<b>518.3</b>	<b>492.5</b>	<b>494.4</b>
<i>Change</i>	- 4.7%	- 5%	+ 0.4%

(1) The proven and developed reserves are those that can be produced using existing installations. Undeveloped proven reserves are those that require new wells to be drilled on virgin territory, or significant extra investment in existing facilities, such as a compressor unit.

(2) The totals are rounded off according to the database, so there may be slight differences between the details and the total.

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● CHANGE IN THE GROUP'S RESERVES BY COUNTRY: LIQUID HYDROCARBONS

<i>Mbbbl</i>	Liquid hydrocarbons		
	2006	2007	2008
Germany	43	47.7	62.9
Norway	92.5	91.5	105.2
United Kingdom	30.6	23.9	24.5
Netherlands	0.9	1.1	3.8
Other	0	10.1	12.8
<b>TOTAL</b>	<b>167.0</b>	<b>174.4</b>	<b>209.3</b>
<i>Change</i>	- 20.1%	+ 4.4%	+ 20.0%

● CHANGE IN THE GROUP'S RESERVES BY COUNTRY: TOTAL

<i>Mboe</i>	Total = natural gas + liquid hydrocarbons		
	2006	2007	2008
Germany	164.2	151.8	150.5
Norway	321.3	319.7	341.5
United Kingdom	95.5	73.4	76.4
Netherlands	94.1	100.6	118.3
Other	10.2	21.4	17.0
<b>TOTAL</b>	<b>685.3</b>	<b>666.9</b>	<b>703.7</b>
<i>Change</i>	- 9,0%	- 2,7%	+ 5,5%

● FOLLOW UP OF THE CHANGE IN THE GROUP'S RESERVES – NATURAL GAS

<i>Mboe</i>	2006	2007	2008
Reserves at December 31 N-1	544.0	518.3	492.5
Revision + discoveries	16.5	8.8	15.8
Assets bought and sold	(9.9)	(3.8)	23.9
Production sales	(32.3)	(30.8)	(37.7)
<b>RESERVES AT DECEMBER 31</b>	<b>518.3</b>	<b>492.5</b>	<b>494.4</b>

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#### ● FOLLOW UP OF THE CHANGE IN THE GROUP'S RESERVES – LIQUID HYDROCARBONS

<i>Mbbl</i>	2006	2007	2008
Reserves at December 31 N-1	209.0	167	174.4
Revision + discoveries	12.3	9.4	45.4
Assets bought and sold	(41.1)	9.6	3.0
Production sales	(13.2)	(11.6)	(13.5)
<b>RESERVES AT DECEMBER 31</b>	<b>167.0</b>	<b>174.4</b>	<b>209.3</b>

#### ● FOLLOW UP OF THE CHANGE IN THE GROUP'S RESERVES – NATURAL GAS AND LIQUID HYDROCARBONS

<i>Mboe</i>	2006	2007	2008
Reserves at December 31 N-1	752.9	685.3	666.9
Revision + discoveries	28.8	18.2	61.2
Assets bought and sold	(50.9)	5.8	26.9
Production	(45.5)	(42.4)	(51.3)
<b>RESERVES AT DECEMBER 31</b>	<b>685.3</b>	<b>666.9</b>	<b>703.7</b>

At December 31, 2008, GDF SUEZ's proven and probable reserves of liquid hydrocarbons and natural gas totaled 704 Mboe compared with 667 Mboe in 2007, including 70% of natural gas reserves, representing 77 billion m<sup>3</sup>. GDF SUEZ conducts exploration-production activities in 12 countries, primarily in Europe and North Africa. As an illustration, at the end of 2008, the Group's share in gross proven and probable working interest reserves was 729 Mboe compared with 696 Mboe in 2007.

Every year, more than one-third of reserves is subject to an independent assessment by an international expert (currently DeGolyer and MacNaughton) over a three-year cycle. At December 31, 2008, 35% of 2P reserves were covered by that assessment.

The Group uses the Securities and Exchange Commission (SEC) definitions for the classification of its proven reserves and the Society of Petroleum Engineers (SPE) and World Petroleum Congress (WPC) joint definitions for the classification of its 2P (proven and probable) reserves, known as SPE PRMS.

These assessments, which require the use of certain subjective evaluations, are revised annually to account for new information, in particular concerning production levels for the past year, source re-evaluation, the addition of new reserves resulting from discoveries or acquisitions, the sale of reserves and other economic factors.

Unless otherwise specified, the references made to proven and probable reserves and to production must be understood as the Group's stake in these reserves and this production (net of all charges paid in kind by third parties in the form of crude oil or natural gas). These references include the total of these net proved and probable oil, gas, and other hydrocarbon reserves estimated as being potentially contracted for the remaining duration of the licenses, concessions, and sharing production contracts. Non-contractual renewal of these licenses, concessions and agreements was not taken into account.

The renewal rate of the reserves for a given period is defined as the ratio of additions of reserves of the period (discoveries, net acquisitions and revisions of reserves) to the production of the period. The renewal rate of the Group's reserves was 112% on average over the period 2004-2006, 78% on average in 2005-2007 and 65% on average in 2006-2008.

#### 3.3 Production <sup>(1)</sup>

The following tables show GDF SUEZ's production of natural gas and liquid hydrocarbons, including the share from the equity affiliates, by country, for each of the three years ended on December 31, 2006, 2007 and 2008.

(1) Since production is rounded to the nearest tenth, totals may show insignificant differences.

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● CHANGE IN THE GROUP'S PRODUCTION BY COUNTRY – NATURAL GAS

<i>Mboe</i>	2006	2007	2008
Germany	8.8	8.6	8.1
Norway		0.2	4.2
United Kingdom	8.5	7.2	6.5
Netherlands	14.6	14.3	18.3
Other	0.4	0.6	0.7
<b>TOTAL</b>	<b>32.3</b>	<b>30.8</b>	<b>37.8</b>

● CHANGES IN THE GROUP'S PRODUCTION BY COUNTRY – LIQUID HYDROCARBONS

<i>Mbbl</i>	2006	2007	2008
Germany	3.5	3.3	3.2
Norway	3.3	3.9	6.0
United Kingdom	4.3	4.2	3.8
Netherlands	0.1	0.1	0.2
Other	2	0	0.2
<b>TOTAL</b>	<b>13.2</b>	<b>11.6</b>	<b>13.5</b>

● CHANGE IN THE GROUP'S PRODUCTION BY COUNTRY – NATURAL GAS AND LIQUID HYDROCARBONS

<i>Mboe</i>	2006	2007	2008
Germany	12.3	12.0	11.3
Norway	3.3	4.1	10.2
United Kingdom	12.8	11.4	10.3
Netherlands	14.7	14.4	18.5
Other	2.4	0.6	0.9
<b>TOTAL</b>	<b>45.5</b>	<b>42.4</b>	<b>51.3</b>

During the fiscal year ended December 31, 2008, GDF SUEZ's production of gas and liquid hydrocarbons was 51.3 Mboe.

**3.4 Exploration-Production activity by country**

**Germany**

The Group began its exploration-production activities in 1994 when it acquired Erdöl-Erdgas Gommern GmbH ("EEG"). In 2003, it purchased on-shore assets owned in Germany by Preussag Energie GmbH ("PEG"). In 2007, EEG merged with and was absorbed by PEG. The entity resulting from the merger is now known as GDF SUEZ E&P Deutschland GmbH.

PEG and EEG also had rights on underground storage sites, and these activities were transferred to the GDF SUEZ Infrastructures Business Line in 2008.

On December 31, 2008 the Group owned a stake in 62 oil and natural gas fields in Germany, including 56 in production, with proven and probable reserves of 151 million barrels oil equivalent including approximately 58% in natural gas form.

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Furthermore, the acquisition of PEG assets enabled GDF SUEZ to indirectly expand its presence in the German market due to its 11% stake in EGM, which owns transmission and distribution infrastructures and markets a portion of the gas produced by the Group in north-west Germany.

Finally, in 2008, the Group maintained its commitment to CO<sub>2</sub> storage research, an area in which it signed a cooperation agreement with the Vattenfall Group in 2007, for an experimental CO<sub>2</sub> injection and natural gas recovery improvement project on the Altmark site.

#### Norway

In 2001, the Group began exploration-production in Norway by acquiring stakes in the Snøhvit and Njord fields. It then purchased stakes in Fram and Gudrun in 2002, Gjøa in 2003, and obtained licenses for various exploration blocks.

The Group owns a stake in 20 oil and natural gas fields off the coast of Norway, of which its share was 341 Mboe of proven and probable reserves at December 31, 2008 (around 69% in gas form).

The Norwegian authorities recognized GDF SUEZ as the production phase operator for one of these fields, the Gjøa field, the production of which will start in 2010. The Norwegian authorities approved the Gjøa and Vega Sør development plan in 2007, and development is currently underway.

#### United Kingdom

In 1998, the Group helped develop the Elgin-Franklin field in the central basin of the British North Sea and then progressively expanded its portfolio of licenses.

At the end of 2008, the Group owned a stake in 29 fields located in the British North Sea, of which 13 were in production. As of December 31, 2008, the share of proven and probable reserves held by the Group (including the reserves held by its 22.5% stake in EFOG) in these fields represented 76 Mboe, of which around 68% was in the form of gas.

#### The Netherlands

In 2000, the Group became an off-shore operator in the Netherlands by acquiring companies owned by TransCanada Pipelines. In addition, this acquisition allowed it to become the operator of NoordGasTransport, the major Dutch underwater pipeline.

The Group owns stakes in 46 fields in Dutch waters. Forty of these fields are in production, and the Group acts as operator on most of them. At December 31, 2008, the share of proven and probable reserves held by the Group in these fields represented 118 Mboe, nearly all of which was in the form of gas.

In 2008, GDF SUEZ bought from NAM a set of oil and gas exploration & production assets in the Dutch North Sea, near the NOGAT pipeline, GDF SUEZ becoming the operator of NOGAT with a 30% stake. The acquired assets include shareholdings in five blocks currently in production and other potential volumes on existing sources and discoveries with a high potential for exploration. This acquisition considerably extends the company's activity in the Netherlands.

#### Egypt

The Group won a bidding process and on September 15, 2005 finalized a concession agreement with Egypt's national company, EGAS, and the Egyptian government, thereby obtaining a 100%

stake in the West El Burullus off-shore block, located in the Nile River delta. Fifty percent of the shares were later sold to Dana Petroleum.

In 2007, the Group increased its presence in Egypt by acquiring a 45% stake in the "Alam El Shawish West" license from Vegas Oil & Gas.

At the end of 2008, the Group's share in Egypt of proven and probable reserves held was 12.7 Mboe of petroleum.

In addition, in 2007, the Group signed an agreement with Shell to acquire a 10% stake in the new exploration license requested by Shell on North West Damietta, a request that was accepted by the Egyptian authorities in 2008.

#### Other countries

GDF SUEZ is also present in Algeria, the Ivory Coast, Mauritania, Libya, Azerbaijan and France.

Since 2002, the Group is operator of the Touat permit in southern Algeria, in partnership with Sonatrach. The exploration/appraisal phase ended in 2007, and the development plan was drafted in 2008. The approval of this development plan by the Algerian authorities is underway.

After the agreements signed in 2005 with Dana Petroleum, in 2006, GDF SUEZ entered into three off-shore blocks off the coast of Mauritania: 24% in block 1, 27.85% in block 7 and 26% in block 8, but the last block is being dropped due to a lack of prospects.

In the Ivory Coast, GDF SUEZ owns 100% of the company ENERCI. This company holds 12% of an off-shore production site which supplies the local market.

In 2008, GDF SUEZ began working in Libya by acquiring from Hellenic Petroleum SA 20% of an exploration-production license that involves five on-shore blocks in the Syrthe basin and one on-shore block in the Murzuq basin.

In 2008, the Group also acquired a 15% stake in the Yalama exploration license in Azerbaijan. No discoveries were made during post-acquisition drilling.

Finally, the Group acquired a 50% stake in the Pays du Saulnois license in France.

#### 3.5 Natural gas commercialization

In 2008, the Exploration-Production Business Unit sold 68.3 TWh of natural gas, 64.3 TWh of which was produced by the BU, mainly under long-term contracts.

Currently, 54% of the natural gas produced by the Exploration-Production Business Unit's affiliates is sold to third parties, in general under short- or long-term contracts concluded before these companies were acquired by the Group. Clients are mainly Gas Terra in the Netherlands, and E.ON and EGM in Germany.

Under contractual agreements, 46% of the natural gas produced by the Exploration-Production Business Unit's subsidiaries were sold to the Supply Business Unit and the LNG Business Unit. The affiliates exposure to market price risks lead, for a part of them, to hedging contracts with the Gaselys Business Unit.

The long-term contracts under which GDF SUEZ sells its natural gas production differ according to the subsidiary and the local market. They are indexed on the natural gas spot price and/or to the price

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of oil products most of them including moving averages. Although changes in the price of natural gas tend to follow changes in oil prices, there is a certain delay, generally six to nine months, before oil product price changes impact long-term natural gas sale prices.

**4 Competitive position**

There is considerable competition in Exploration-Production activity among oil and gas operators to acquire assets and permits to explore for and produce oil and natural gas. The Group produced 51.3 Mboe of natural gas in 2008. It moved to the top of the off-shore producer rankings in the Netherlands and came in fifth of the production companies in Germany, ninth in Norway and twentieth in the United Kingdom<sup>(1)</sup>.

**5 The Exploration-Production BU's strategy**

The Group's Exploration-Production business activity is key to its strategy of integration along the entire gas chain, allowing the Group to:

- reduce its exposure to margin shifts along the natural gas chain;
- reduce the impact of energy price fluctuations on its supply costs;
- gain access to new natural gas resources and diversify its commercial natural gas offers;
- reinforce the Group's position as a leading buyer by opening up possibilities for new partnerships with top suppliers with a view to furthering projects together.

The Group's objective is to hold 1,500 Mboe in proven and probable reserves and to increase its production through organic growth and acquisitions, market conditions permitting. To reach these objectives,

the Group plans to maintain its current level of holdings in its current production areas in Northern Europe, to accelerate development in North Africa (Algeria, Egypt, Libya), and to set up operations in new areas: Caspian Sea, Gulf of Mexico, Middle East. In 2009, the Group will set up activities in new countries (United States – Gulf of Mexico, Indonesia) under agreements signed in 2008 with ENI. Other opportunities could also arise: special attention will be given to projects with potential for an integrated LNG project.

**6.1.3.1.3.3 Supply BU**

The Global Gas & LNG Business Line aims to supply natural gas to various GDF SUEZ entities, through exploration-production activities, supply contracts and organized markets. In particular, the Business Line negotiates with major natural gas suppliers for the Group's needs, and manages the physical balance between natural gas needs and resources. This integration of gas supplies optimizes the Group's supply conditions and allows the Group to benefit from economies of scale on as broad a portfolio as possible.

Nonetheless, this integration of other Business Lines' natural gas supply operations within the Global Gas & LNG Business Line is only sought when it creates value. It may be preferable for some transactions to be carried out locally; in this case, it is preferable to implement a subsidiarity principles and let these transactions be borne by a local entity. Under these particular circumstances, close coordination between the Business Lines is set up.

**1 Key indicators:**

The table below presents the sources of the Business Line's supply portfolio for each of the three years ended on December 31, 2006, 2007 and 2008 (excluding its own consumption and losses).

● **BREAKDOWN OF SUPPLY PORTFOLIO (EXCLUDING SELF CONSUMPTION AND LOSSES)**

TWh	Fiscal years ended		
	2008	2007	2006
Long-term contracts with third parties	511.5	503.0	503.9
Purchases from the Exploration – Production BU	33.2	31.6	32.0
Short-term purchases	113.4	82.2	102.9
Other sources	0.0	0.1	0.4
<b>TOTAL</b>	<b>658.1</b>	<b>617.0</b>	<b>639.2</b>

(1) Sources: FUGRO (Netherlands Off-shore Information Services), German Oil and Gas Industry Association (WEG), Norwegian Petroleum Directorate, Cabinet Wood Mackenzie.

# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

#### 2 The BU's missions

As part of the Global Gas & LNG Business Line, the Supply BU is in charge of:

- providing the Group with competitive natural gas supply;
- commercializing part of the Exploration-Production BU's production;
- managing and optimizing the Group's natural gas supply portfolio structure:
  - managing the Group's natural gas resources/needs balance,
  - unlocking value of storage, transport and regasification rights it manages,
  - selling natural gas or services to long- or short-term counterparties;

- managing relations with the Group's major natural gas suppliers.

It performs these tasks in cooperation with the LNG BU. It uses its skills to serve the Group's subsidiaries in the area of natural gas purchasing when it does not supply these subsidiaries directly.

#### 3 Description of the activity

##### A diversified portfolio

The Supply BU ensures the Group's supply diversification in order to limit its counterparty risks, to protect it against eventual disruption in supply and to best adapt its natural gas purchases to its needs.

Its main resources come from Norway, Russia, Algeria, the Netherlands, Egypt, the United Kingdom, Libya and Nigeria. The table below gives the geographic breakdown of the Business Line's gas supply sources (including its own resources and LNG) for each of the three years ended December 31, 2006, 2007, and 2008.

#### ● GEOGRAPHIC BREAKDOWN OF SUPPLY SOURCES (INCLUDING ITS OWN RESOURCES)

Fiscal year ended December 31	2008	2008	2007	2007	2006	2006
	TWh	(%)	TWh	(%)	TWh	(%)
Norway	144.1	21.9%	132.6	21.5%	135.0	21.1%
Russia	97.1	14.8%	95.7	15.5%	101.2	15.8%
Netherlands	93.4	14.2%	94.9	15.4%	100.9	15.8%
Algeria	101.7	15.5%	105.9	17.2%	94.7	14.8%
Egypt	55.6	8.4%	53.2	8.6%	53.7	8.4%
United Kingdom	24.3	3.7%	23.0	3.7%	24.5	3.8%
Libya	20.1	3.1%	19.3	3.1%	18.8	3.0%
Nigeria	5.4	0.8%	6.4	1.0%	5.0	0.8%
Germany	3.1	0.5%	3.7	0.6%	2.2	0.4%
Other sources <sup>(a)</sup>	113.4	17.2%	82.3	13.3%	103.2	16.1%
<b>TOTAL</b>	<b>658.1</b>	<b>100%</b>	<b>617.0</b>	<b>100.0%</b>	<b>639.2</b>	<b>100.0%</b>

(a) Short-term market and mine gas purchases.

#### Gas supply

The Supply BU fuels the Group's development with one of the largest and most diversified long-term contract portfolios in Europe. These contracts give the Group the visibility it needs to shore up its development and the security of its supply, and constitutes a major asset on the European natural gas market.

This portfolio is balanced in part through purchases in short-term markets through Gaselys. Through this, the Supply BU adjusts its supply to the group's needs by optimizing its purchasing costs

The long-term contracts optimized by the Supply BU generally have a term in the range of 20 years. At December 31, 2008, the average residual term of these long-term contracts (weighted by volume) was 15.5 years (stable in comparison with 2007). No significant contract expires in the course of the next five years.

According to market practice, the long-term purchase contracts include take-or-pay clauses according to which the buyer agrees to pay for minimum gas volumes each year, whether or not delivery occurs (except in the event of supplier default or *force majeure*). However, the majority of the contracts include make-up or carry-forward flexibility clauses. These are compensation mechanisms which allow volumes already paid for but not offtaken to be carried over to a subsequent period (make-up) or limited volumes to be deducted from the take-or-pay obligation, when the volumes taken over the course of previous years exceeded the minimum volumes applicable to these years (carry forward).

The price of natural gas under these contracts is indexed (on either a monthly or quarterly basis) to the market price of energy products with which gas is directly or indirectly substitutable (mainly oil products). In addition, these contracts provide for periodic (two

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to four years) revisions of price and indexing formula to account for market changes. Most of the contracts also cover the possibility of one-off price revisions outside the periodic revision framework. Certain contracts also plan for changes in other contractual stipulations in the event of exceptional circumstances that impact the contracts' economic equilibrium (hardship). The parties are then required to negotiate in good faith and can, in case of disagreement, revert to arbitration.

The supply contracts stipulate one or more delivery points. The delivery points of gas delivered by pipeline are distributed across the entire European transport system and, in the case of LNG, are mainly positioned at the loading points for the vessels in the suppliers' liquefaction plants.

The minimum quantities that the Global Gas & LNG Business Line (Supply and LNG BU, excluding subsidiaries) must take under its long-term contracts are 524 TWh for 2009, 2,203 TWh for the period 2010 to 2013, and 6,179 TWh for 2014 and thereafter.

**Reservation of short- and long-term capacities:**

Thanks to short- and long-term capacity reservation contracts, the Supply BU has natural gas reception and land and sea shipping capabilities downstream of the delivery points. It currently owns the use rights necessary for carrying out its supply contracts. In addition, the Group holds shares in international natural gas transit/transport infrastructures.

Outside France, these rights and/or stakes concern MEGAL (Mittel Europa Gas Leitung) in Germany, WAG (West-Austria Gasleitung) in Austria, SEGEO (Société Européenne du Gazoduc Est-Ouest) and TSA (Transport Supply Agreement) in Belgium, Interconnector between the United Kingdom and continental Europe, and transport capacity reservations in Europe (primarily in the Netherlands, Belgium, Austria, Germany, and Italy) for transmission of natural gas from its contracts with the Netherlands, Norway, Russia, Libya and other countries. Moreover, the Supply BU has subscribed access rights in LNG terminals on the Isle of Grain in the United Kingdom and in Carthagena and Huelva in Spain. It also manages the capacity held by the Group in the Zeebrugge terminal.

**Relationships with major natural gas suppliers**

The Supply BU has established long-term relationships with the Group's traditional suppliers through supply contracts. These relationships may be further enriched by various partnerships that involve other Group entities. The Exploration-Production business has forged partnerships with British, Norwegian, Dutch and Algerian companies, including stakes in the LNG production plants in Snøhvit (Norway) and Ildku (Egypt). A strategic protocol was signed with Sonatrach, which led to the 2001 creation of a joint commercialization company, MedLNG&Gas. The fruitful

cooperation started in 2005 with Gazprom in LNG could lead to other partnerships in this briskly growing sector.

Note that the Supply BU recently consolidated its supply portfolio with its traditional suppliers and other suppliers to meet the Group's future growth in Europe. As a reminder:

- in 2006, the natural gas supply contracts concluded with Gazprom were renewed until 2030;
- at the end of 2007, Gaz de France renewed its supply contracts for Algerian LNG until 2019;
- under the 2008 sale of Distrigaz following the Gaz de France-SUEZ merger, supply contracts were concluded with ENI for the delivery of an annual 4 billion m<sup>3</sup> of natural gas in Italy over 20 years and an option for 2.5 billion m<sup>3</sup> of natural gas over 11 years in Germany.

**Optimized management of the Group's supply**

With no supply contract being backed to on one particular client or group of clients, the Supply BU manages its natural gas portfolio, on the Group's different European markets, in such a way as to optimize the total cost of its supply.

The supplies are established first and foremost by long-term contracts. These contracts give the buyer a certain flexibility in delivery volumes. The Supply BU optimizes the management of its supply portfolio, both in terms of volume and price, by taking advantage of the diversity of its portfolio of contracts.

These long-term supplies are complemented by short- or medium-term purchases from long-term suppliers or other players, in order to more finely adjust resources and develop sales while taking advantage of various market opportunities.

In particular, short-term activities help lighten or round out the supply portfolio. Through Gaselys, the Supply BU is active in the spot markets (especially, for gas, the National Balancing Point in the United Kingdom, the Zeebrugge Hub in Belgium and the Title Transfer Facility ("TTF") in the Netherlands, and the *Points d'Echange Gaz* in France) and executes arbitrage operations by intervening in purchases and sales in the short-term markets, and by executing purchase and sale operations of derivative products linked to energy.

The Supply BU's significant presence in short-term markets also makes it easier to manage the unexpected aspects of delivery on long-term supply chains. The Supply BU, in cooperation with Gaselys, helps develop liquidity in the French natural gas market by playing an active role in developing trade on Powernext.

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## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

In addition, the Supply BU makes short- and long-term sales to European gas operators. The table below shows the change in sales to operators and in short-term markets for each of the three last years.

TWh	Fiscal years ended December 31		
	2008	2007	2006
Operator Sales	34.0	40.8	47.6
Short-Term Market Sales	45.4	35.7	42.4
<b>TOTAL</b>	<b>79.4</b>	<b>76.5</b>	<b>90.0</b>

In addition to optimizations between contracts and short- and medium-term operations, it uses its booked capacity in underground storage facilities as a management tool. The natural gas stored over the summer, in addition to the use of supply contract flexibility volumes, helps meet additional customer demand in winter by guaranteeing supply continuity to its customers in observance of the legal requirements for all natural gas suppliers: in France, the Company must be able to supply all its firm customers under severe weather conditions that only occur two or fewer times a century – a condition known as the “2%” risk.

The Supply BU also provides the following services for third-party operators, through long-term contracts (sometimes beyond 2025):

- re-delivery to StatoilHydro, Shell, Total and Conoco on the Spanish border (Col de Larrau) of up to 2.4 billion m<sup>3</sup> of Norwegian natural gas each year, delivered to GDF SUEZ in northern France (Taisnières);
- re-delivery to ENI on the Swiss border (Oltingue) of up to 6.5 billion m<sup>3</sup> of Norwegian natural gas each year, delivered by ENI in northern France to GDF SUEZ (in Dunkerque and/or Taisnières);
- finally, under a long-term gas swap contract with ENEL, GDF SUEZ receives Nigerian LNG in Montoir-de-Bretagne from ENEL (3.5 billion m<sup>3</sup> per year) and provides ENEL with an equivalent volume of gas from its own supply portfolio at different points along the European network (in particular at the Austrian-Slovakian border and in the Italian LNG terminal of Panigaglia).

#### 4 Competitive position

The Supply BU manages one of the most diversified supply portfolios in Europe in terms of the contracts’ geographic origin, secured by the large share of long-term contracts.

The natural gas portfolio stays competitive and flexible due to:

- the centralization of natural gas purchases;
- the Supply BU’s capacity to access markets to balance resources and needs and optimize the long- and short-term supply mix;
- the periodic price review mechanism of long-term contracts;
- its multiple delivery points and the Supply BU’s transport capacities in Europe.

#### 5 Strategy – Development

The Supply BU implements the Group’s supply strategy, which consists in building a secure, competitive and flexible portfolio for all the Group’s energy vendors and processors:

- by covering a large portion of the Group’s needs with long-term supply contracts;
- by maintaining and developing geographic diversity of the portfolio of contracted resources, in particular by maintaining a large share of LNG in the resource portfolio;
- by using short-term markets or resources to retain a certain management flexibility in order to face unpredictable demand and to meet certain customers’ specific needs;
- by holding natural gas transmission and storage capacities throughout Europe and diversified transmission routes to the Group’s various markets.

In connection with other Group or Business Line BUs, the Supply Division is continuing to develop strategic partnerships with major suppliers.

#### 6.1.3.1.3.4 LNG Division

##### 1 The GDF SUEZ Group’s Position in LNG

- Europe’s largest LNG importer (source GIGNL 2007);
- 3<sup>rd</sup> largest LNG importer in the world (source GIGNL 2007);
- leader in the Atlantic basin;
- management of a portfolio of long-term supply contracts from five countries in 2008 (six from 2009 on ), including three liquefaction plants in which the Group holds a stake (Atlantic LNG, Idku, Snøhvit);
- regasification capacities in four European countries (France, Belgium, Spain, United Kingdom), in the United States (New England, Gulf of Mexico) and Chile (starting in 2009);
- fleet of 16 vessels at the end of 2008 (owned or chartered); five long-term chartered vessels under construction.

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**2 The BU's missions**

The LNG BU, the combination of Gaz de France's former LNG Division and SUEZ Global LNG (full subsidiary), aims to develop the LNG business, to manage all the Group's LNG supply and vessel chartering contracts and to optimize the value of its LNG portfolio by dynamically hedging its positions.

GDF SUEZ aims to keep actively participating in the growth of the LNG industry by developing and diversifying its supply sources and its markets and by investing in corresponding infrastructures, in order to secure its supply and to be able to operate on a significant scale on international markets.

**3 Description of the business**

GDF SUEZ's recognized expertise in the entire LNG value chain, from production to imports and commercialization, including regasification terminal operation and maritime shipping, enables it to build on the strong growth in the industry. LNG trade is growing quickly, at a rate much higher than gas pipeline trade, and on a global scale.

LNG gives the Group access to new natural gas resources and helps it diversify its supply. Thanks to the ability to change its vessels' destinations, LNG makes supply portfolio management more flexible, and allows the Group to seize optimization and arbitrage opportunities. The LNG business's development within the Business Line is consistent with that of the Exploration & Production and Supply BU's and, together with the Energy Europe & International Business Line, with that of the Group's downstream markets.

**a) LNG supply**

Most of the LNG is purchased FOB <sup>(1)</sup> on a long-term basis by GDF SUEZ. In 2008, its contractual annual commitments were as follows:

- 119 TWh of Algerian LNG;
- 55 TWh of Egyptian LNG;
- 6 TWh of Nigerian LNG (DES contract <sup>(2)</sup>);
- 68 TWh of LNG from Trinidad and Tobago <sup>(3)</sup>.

In 2008, delivery from Norway began (7.5 TWh annually).

In 2009, deliveries from Yemen are set to begin (39 TWh annually).

There are agreements for further supply at later dates (in particular connected to the Brass LNG project in Nigeria).

Moreover, under a long-term agreement, Shell will provide GDF SUEZ with a total of 10 billion m<sup>3</sup> of natural gas in LNG form (approximately 115 TWh) throughout the agreement, starting no later than 2014.

<sup>(1)</sup> Free on board.

<sup>(2)</sup> Delivered ex-ship.

<sup>(3)</sup> The Trinidad and Tobago contract, which is contractually borne by GDF SUEZ LNG North America, is managed operationally by the LNG BU.

<sup>(4)</sup> Freeport: starting in 2010.

**b) LNG destination**

Offloading is mainly done:

- in French LNG terminals in Montoir-de-Bretagne and Fos-Tonkin (and Fos-Cavaou starting in 2009);
- in other main European LNG importing countries:
  - the Huelva and Carthagena terminals in Spain,
  - the Panigaglia terminal in Italy,
  - since late 2008: extensions to the Zeebrugge terminal in Belgium and the Isle of Grain terminal in the UK;
- in North America, in the Everett terminal near Boston (and additionally in the Neptune floating terminal also in the Boston area, starting in late 2009) and the Penuelas terminal in Puerto Rico. The Group also has regasification capacities in the Sabine Pass and Freeport <sup>(4)</sup> terminals in the Gulf of Mexico and will commission the Mejillones terminal in Chile in late 2009.

In 2008, GDF SUEZ delivered spot or short-term cargoes to various customers in Japan, Korea, India, Greece, Spain and Mexico.

**c) Maritime transport**

In order to meet its maritime transport needs, GDF SUEZ uses a fleet of LNG tankers that it adapts in size to meet its long-term commitments and its one-off opportunities. The chartering terms vary from a few days to as much as twenty years. At the end of 2008, the GDF SUEZ fleet included 16 LNG tankers:

- five tankers owned (four vessels) or co-owned (one vessel) by the Group:
  - Tellier – 40,000 m<sup>3</sup> (Group-owned),
  - SUEZ Matthew – 126,500 m<sup>3</sup> (Group-owned),
  - Provalys – 154,500 m<sup>3</sup> (Group-owned),
  - Gaz de France energy – 74,000 m<sup>3</sup> (Group-owned),
  - Gaselys – 154,500 m<sup>3</sup> (60%-owned by the NYK Group and 40%-owned by the Group)
- and eleven other vessels chartered from other ship-owners.

In 2009 and 2010, GDF SUEZ will have five new long-term chartered vessels to meet the needs of a Yemeni supply contract and to deliver cargoes to the Neptune float LNG terminal (which requires regasification vessels) and to the Mejillones terminal in Chile. These vessels are currently under construction at various Asian naval sites:

- BW SUEZ Brussels – 162,400 m<sup>3</sup>;
- BW SUEZ Paris – 162,400 m<sup>3</sup>;
- SUEZ Point Fortin – 154,200 m<sup>3</sup>;
- SUEZ Neptune – 142,800 m<sup>3</sup> (regasification vessel);
- SUEZ Cape Ann – 142,800 m<sup>3</sup> (regasification vessel)..

# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

In the area of maritime transport, GDF SUEZ also holds an 80% stake (with Japanese ship-owner NYK owning the remaining 20%) in Gazocéan, which manages the Tellier, Gaselys, Provalys and Gaz de France Energy LNG tankers. The Group also owns a 40% stake in Gaztransport & Technigaz (GTT), which designs LNG tank confinement systems and develops the “membrane” LNG tank isolation techniques, which, in late October 2008, equipped 61% of the tankers in operation worldwide and 80% of the vessels ordered (source: BS/LNG World Shipping).

#### d) Investments in infrastructure

To support and encourage its development in the global LNG trade, the GDF SUEZ Group also invests in LNG production infrastructure (liquefaction plants) or reception infrastructure (regasification terminals).

The Group thus owns:

- 10% of train 1 of the Atlantic LNG liquefaction plant in Trinidad and Tobago;
- 5% of train 1 of Egypt’s Idku plant;
- 12% of the Melkøya plant (connected to the Snøhvit field) in Norway.

In terms of LNG reception terminals, the Group owns the Montoir-de-Bretagne and Fos-Tonkin terminals in France and the Everett terminal in the US. It also owns the following holdings:

- 60% of the Belgian Zeebrugge terminal;
- 69.7% of the French Fos-Cavaou terminal (under construction);
- 10% of India’s Petronet LNG Ltd. which owns the Dahej terminal and is building the Kochi terminal;
- 50% of GNL Mejillones, which is building a terminal in northern Chile.

GDF SUEZ is also participating in the Rabaska terminal in Québec and the Jurong terminal in Singapore, and plans to develop a floating terminal in Italy (Triton).

GDF SUEZ is active in developing floating production and reception techniques. In addition to the Neptune and Triton terminals mentioned above, in 2008, it signed a letter of intent with Cameroon’s Société Nationale d’Hydrocarbures with a view to developing an LNG export scheme including the construction of a floating liquefaction plant if appropriate.

In terms of LNG terminals, the LNG BU manages the Group’s stakes in Petronet LNG Ltd, in the Rabaska and Singapore terminal projects; in cooperation with the Energy Europe & International Business Line, it is managing the Triton project in Italy.

#### 4 Competitive position

Based on 2007 figures (source: GIIGNL), GDF SUEZ is the third largest LNG importer in the world, the largest importer in Europe and America’s second largest importer of LNG.

#### 5 Strategy/Development

The LNG BU’s main strategic orientations:

- developing and diversifying the supply portfolio through strategic partnerships with major suppliers and producers and by developing integrated projects that involve E&P, liquefaction and supply;

- developing its markets (niche markets, etc.) in close cooperation with other Group entities (the Energy Europe & International Business Line in particular);
- creating added value by physically optimizing the portfolio and by seizing opportunities linked to price differences between markets (arbitrage), with the support of Gaselys;
- investing in upstream LNG infrastructures (on-land or floating liquefaction plants) in order to access resources and in downstream infrastructures (regasification terminals).

#### 6.1.3.1.3.5 Gaselys

Gaselys, a subsidiary of GDF SUEZ (51%) and Société Générale (49%), is one of the leading players in European natural gas trading. The company was created in 2001 to support the deregulation of the natural gas and electricity markets. It developed a multi-subjacent and multi-market platform and is active in all areas of the energy mix: natural gas, electricity, oil and refinery products, coal, CO<sub>2</sub> emissions quotas and green certificates.

Gaselys offers the Group and its customers, and its own direct customers, three main types of services:

- access to short-term markets;
- hedging solutions to manage exposure to energy price fluctuations (Risk Management);
- solutions for streamlining physical assets (storage, transport and production capacity flexibility management) or contractual assets (flexibility in purchase contracts or in the sale of natural gas or electricity).

Based on its physical and financial trading activities, Gaselys contributes to improving the Group’s various business segments: streamlining its natural gas resources in Europe (including gas produced by Exploration-Production, long-term supply contracts, and spot LNG transactions), market hedging strategies for electricity production.

Gaselys and GDF SUEZ’s sales teams put together innovative price engineering offers (Risk Management) that allow them to include pricing plans in large consumers’ natural gas supply contracts adapted to their risk profile: fixed rate offers, special indexing, price structures that include sale or purchase options to protect against unfavorable rate changes.

In addition, Gaselys is developing its own sales franchise made up of players from all parts of the energy sector, heavy volume energy producers, and financial institutions.

Finally, Gaselys is engaged in proprietary trading and asset backed trading activities. The objective is to arbitrage price discrepancies between the various energy underlyings (gas, electricity, oil and coal) and to capitalise on anticipated price movements based upon fundamental and technical analysis.

Gaselys is primarily active in European markets.

#### Natural gas

NBP in the United Kingdom, Zeebrugge Hub in Belgium, TTF in the Netherlands, BEB and EGT in OTC and EEX in Germany, PEG and Powernext Gas in France<sup>(1)</sup>, Baumgarten (Central European Gas

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Hub), PSV in Italy and Nymex in the United States (LNG transaction hedging).

**Electricity**

United Kingdom (in particular UK Power Exchange), France (in particular Powernext)<sup>(1)</sup>, Germany (in particular EEX), Belgium (in particular Endex and Belpex), the Netherlands (Endex and APX) and Spain (OMEL).

**Petroleum**

Crude oil or refined oil references in Europe and the United States and JCC in Asia (financial transactions only).

**Coal**

Northwestern European market and other references (financial transactions only).

**CO<sub>2</sub>**

EUA (European Union Allowances) and CER (Certified Emission Reductions).

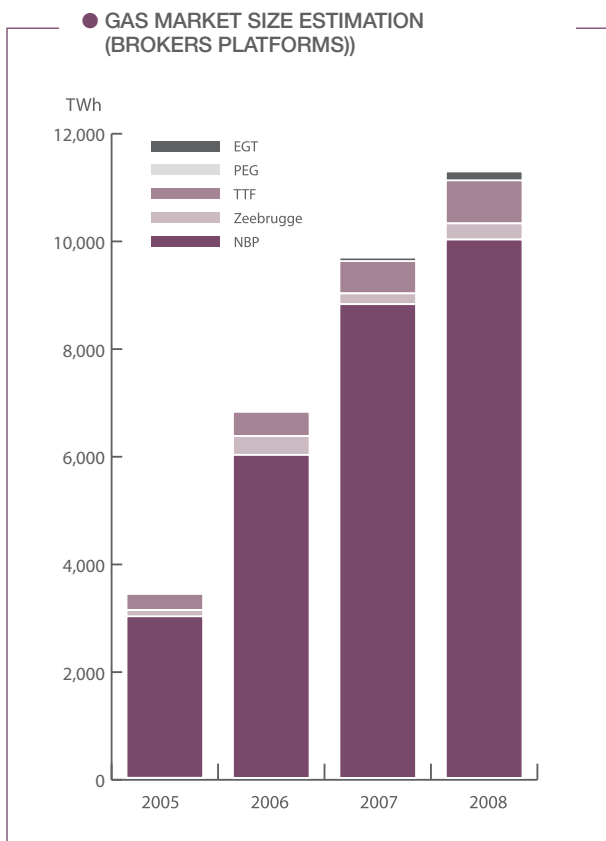
**Green certificates**

RECS (Renewable Energy Certificate System) and proof of the energy's origin

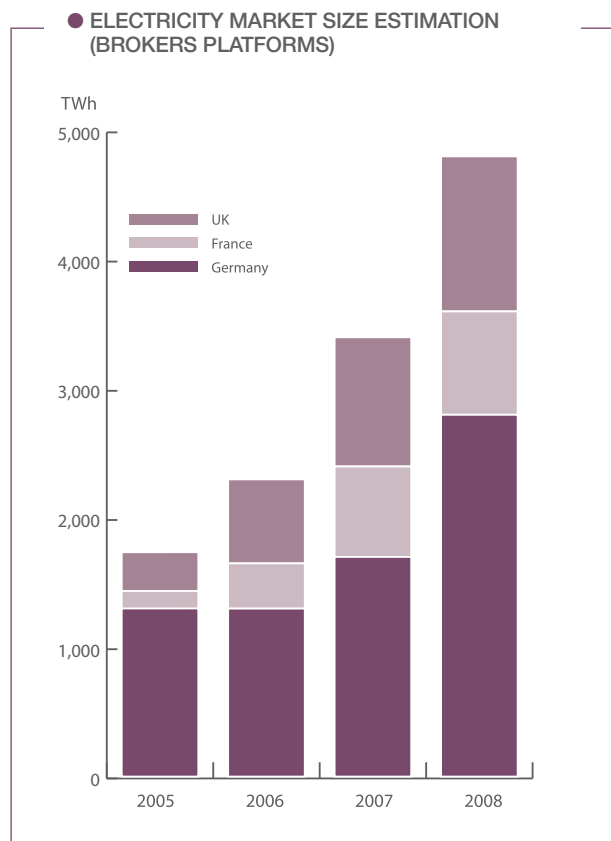
Gaselys trades OTC cleared on many markets – i.e. a fuel swap is closed bilaterally with a counterparty and then sleeved by a clearing house – this reducing credit risk exposure.

In 2008, overall volumes traded by Gaselys increased by 51% compared to 2007.

In the main European gas and power markets, liquidity has increased in 2008, even though the financial crisis and economic slowdown have reduced the growth rate of natural gas traded volumes.



Source: brokers & Gaselys



(1) In November 2008, the Powernext Gas Spot and Futures market was launched in France. Gaselys plays a facilitating role in this market.

# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

#### Governance and risk monitoring

When it was created, Gaselys was granted the status of investment services provider (PSI) by the French Committee of credit establishments and investment enterprises (CECEI) and is consequently supervised by the banking commission Banque de France and the Autorité des Marchés Financiers (AMF).

Gaselys has developed a solid culture of risk control and a stringent framework to monitor and manage market, credit liquidity, operational and regulatory risks.

The risk control organisation is based on strong participation of GDF Suez and Société Générale. It is closely monitored by the Board of Directors, which includes top managers from each parent company. The Board has set up several control committees that ensure that business is conducted in accordance with its objectives: the audit committee, the risk committee and the new product committee.

Gaselys is continuously strengthening and restructuring its support functions to improve risk control as well as internal control.

Gaselys's team of risk controllers performs daily monitoring of **market risks** (commodity price, FOREX rate and interest rate risks) and **physical risks** (asset failure risks). The market risk indicators are based on VaR (value at risk) and stress test models.

In terms of **credit risks**, the parent companies set the policies and grant credit lines party by party. The limits set up are based on credit Value at Risk model. Credit exposure can be reduced through various tools: netting and margin call agreements, first-request guarantees and parent company guarantees, etc.

**Operational risks** are evaluated and managed by a specific team. Internal procedures are regularly improved through periodic reviews and failure analyses.

**The liquidity risk** is covered by credit lines and shareholder lines. It is evaluated through stress tests. Surpluses are invested in highly liquid products.

The limits defined with regard to Gaselys' exposure to the various risks related to its activity are measured and monitored daily, and when a limit is reached, the General Management and the Risk Committee are systematically notified.

In accordance with the Basel II regulations, Gaselys monitors on a daily basis its regulatory capital requirements in accordance with its market risks, credit risks and operational risks exposure, and reports these figures to the Commission Bancaire.

**In terms of internal control and compliance**, the employees' respect for current rules and procedures for all transactions (especially the segregation of duties and information reconciliation) is checked regularly. Moreover, the head of internal control and compliance is in charge of carrying out control missions and ensuring the follow up of the control and audit missions' recommendations. The Credit department is in charge of organizing anti- money laundering procedures and carrying out due diligences when undertaking relations with a third party.

The efficiency of risk control framework is regularly tested in audits supervised by the parent companies' auditors and the banking supervisory authorities.

As a leading European energy trader, Gaselys plays an active role in professional associations and working groups (ISDA, EFET, etc.)<sup>(1)</sup>, to promote best practices and work towards a secure and harmonised European trading environment.

#### 6.1.3.1.3.6 Key Accounts Sales BU

##### 1 Key indicators

- The Key Accounts Sales BU sold approximately 200 TWh of natural gas in 2008.
- More than 300 customers in over 1,000 sites across continental Europe make up the Key Accounts segment
- Sales were concluded in Germany, Austria, Belgium, Spain, France, Italy, Luxembourg and the Netherlands<sup>(2)</sup>. Sales in Benelux and France represented around 80% of sales volumes.

(1) ISDA: International Swaps and Derivatives Association, EFET: European Federation of Energy Traders.

(2) There are currently developments in Eastern and Central European countries.

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● CHANGE IN VOLUMES SOLD BY COUNTRY (INCLUDING INTRA-GROUP)

TWh	2005	2006	2007	2008
France	123.8	109.1	94.7	105.9
Belgium and Luxembourg	21.2	25.4	20.7	23.7
Netherlands	20.2	21.0	20.8	25.9
Italy	16.9	21.0	21.5	24.7
Spain	5.2	6.2	5.1	2.2
Germany	6.7	8.7	9.5	16.1
Austria (*)	-	-	-	0.3

(\*) In 2008, sales in Austria were not consolidated in the Large Accounts Sales BU's financial statements, they were included in the Supply BU's financial statements.  
Source: GDF SUEZ.

**2 The BU's missions**

The Key Accounts Sales BU is in charge of commercialization energy offers (natural gas and electricity) and the related energy services to the Group's European key accounts.

In a constantly changing environment, it performs competitive watch on its markets, defines the sales positioning by customer segment and prepares offers that fit its customers' needs while anticipating market developments.

It puts together complex, customized offers, in particular dealing with energy optimization, contributing to its customers' economic performance.

It coordinates sales action for large pan-European accounts in close cooperation with sales teams from the Energy Europe & International and Energy France Business Lines. Local sales teams in Europe provide local customer support.

**3 Description of the activity**

The Group's key accounts are broken down into the following segments:

- Priority target:
  - pan-European accounts: these are large European groups (mainly industrial groups) present in at least two of the countries served;
  - large national customers .

These customers have a specific behavior: they have a European energy purchase structure and/or a need for complex, tailor-made offers.

- Additional targets:
  - distributors;
  - electricity producers

Overall, there are 800 large accounts (300 customers and 500 prospects). They are listed in a file that is regularly updated, divided

into the three Group Business Lines in charge of commercialization on this segment.

GDF SUEZ offers these clients tailor-made offers that include the sale of gas and electricity, as well as:

- risk management and price engineering offers, primarily based on the Gaselys trading subsidiary's expertise. The Key Accounts Sales BU is therefore able to offer its customers fixed or indexed prices for a determined period, as well as services that allow them to dynamically manage their energy purchase prices throughout the year;
- offers that combine energy and performance rationalization, supported by the Energy Services Business Line, such as:
  - the management or optimization of heating installations or energy consumption installations to accompany gas sales,
  - combined gas and electricity sales, possibly including steam by optimizing the decentralized electricity production assets that clients may have or wish to obtain. In the latter case, the offer includes, if needed and often as a partnership, the construction, financing and operation of electricity production units (cogeneration, trigeneration, or even combined cycles).

Following the GDF SUEZ merger, a cross-Business Line sales organization was set up to jointly market energy and related services to these very large customers, under a single brand, GDF SUEZ Global Energy (cf. infra).

**4 Competitive position**

Through its offers to industrial and commercial customers, GDF SUEZ has kept a large market share in its traditional markets and has established itself as a major new player in continental Europe's largest markets. The GDF SUEZ Group is now a leading player on the European markets.

Its market penetration rate varies according to several factors, including the regulatory environment and the concrete possibilities for access to the transport infrastructures necessary for natural gas transmission.

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# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

	Market share 2008 (*)
Germany	2%
Belgium	20%
Spain	1%
France	59%
Italy	10%
Netherlands	7%

(\*) Market share: volume of natural gas sales in the GDF SUEZ Group's large accounts sales segment/total estimated natural gas volumes sold within this segment in the given country (the latter estimate was made by the Large Accounts Sales BU in 2005).

Source: GDF SUEZ.

### 5 Strategy – Development

Sales outside France will be the major growth driver for sales to major industrial and commercial customers.

The merger of Gaz de France and SUEZ made it possible to launch the GDF SUEZ Global Energy brand in early 2009, with a specific focus on this customer segment. The customers now have a brand that provides them with natural gas and electricity offers and related energy services on a European scale. This gives them the benefit of reliable, diverse supply from a large European natural gas importer and access to a balanced, competitive electricity-generation system. This brand will be carried by the Global Gas & LNG Business Line and by the Energy Europe and International and Energy France Business Lines. Customers that currently have an electricity contract will be contacted for natural gas and vice versa.

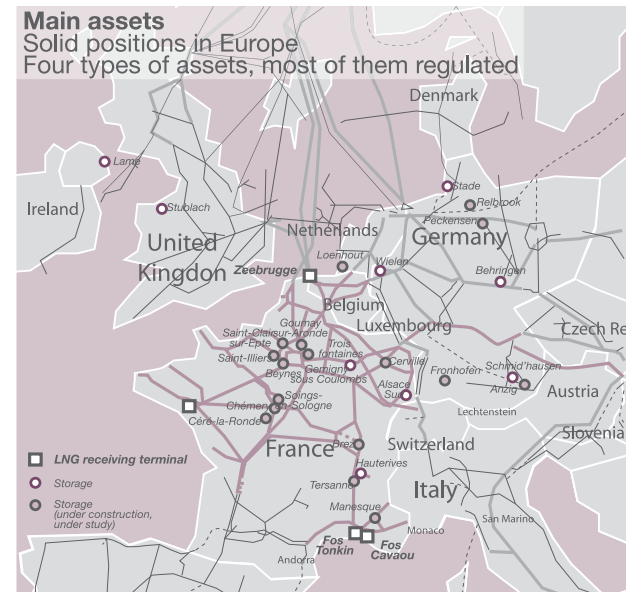
Income from these sales will continue to be posted for each Business Line, and only natural gas sales will be included in the Large Accounts Sales Business Unit's income statement in the Global Gas & LNG Business Line; income from electricity sales will be included in the other Business Lines' financial statements (Energy France and Energy Europe & International).

### 6.1.3.1.4 Infrastructures Business Line

#### 6.1.3.1.4.1 Presentation of the Infrastructures Business Line

##### Mission

The Group's Infrastructures Business Line includes network and infrastructure activities which are mostly in western Europe: natural gas and electricity transport; regasification; natural gas storage; and natural gas distribution.



GDF SUEZ's Infrastructures Business Line includes a coherent grouping of industrial assets and shareholdings that contributed 20.7% of the Group's EBITDA in 2008. The Group's experience in managing gas infrastructures is another major vector for development.

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**Strategy**

The Infrastructures Business Line aims to:

- develop infrastructures to support the growth in European natural gas markets, while encouraging supply flexibility through multiple sources, thereby making natural gas more competitive and securing its supply;
- make it easier to share best practices in each business and within the Business Line, as well as the best information systems and the best technologies;
- guarantee the Business Line's human resources expertise and needs on a lasting basis;
- attain excellence in terms of security and reliability.

The Business Line estimates that it will invest an annual €1.5-2 billion over the next 10 years to reach its ambitions.

**Regulatory and legal context** (also see chapter 6.1.3.1.4.7 "Legislative and regulatory environment for the Infrastructures business in France" below).

The implementation of European directives has profoundly changed the way the Group conducts its business.

The electricity and natural gas markets were gradually opened to competition, with total deregulation starting on July 1, 2007. Since this date, all consumers have been free to choose their natural gas and electricity providers.

- The 2003 introduction in France of third-party access rights for transport networks, distribution networks and LNG regasification facilities, which must be used transparently and without discrimination. Access to these infrastructures is granted based on regulated fees integrating asset remuneration rates that depend on the nature of the infrastructure, for the corresponding Business Line activities.
- The 2004 introduction in France of a third-party access rights for storage facilities, under conditions negotiated<sup>(1)</sup> transparently and without discrimination. An August 21, 2006 order stipulated the rules for determining, granting, distributing and allocating storage capacities.
- Since 2003, the Energy Regulatory Commission (CRE), an independent administrative authority, regulates the gas business. One of the CRE's main tasks is presenting the Ministers for Economic Affairs and Energy with access fees for the transmission and distribution networks and LNG infrastructures, and giving an opinion on the regulated gas rates. The December 7, 2006 law on the energy sector grants the CRE approval power over the natural gas transporter investment programs. This law also sets up a dispute and penalty settlement committee within the CRE and gives the CRE regulatory powers over natural gas.

Some of the Infrastructures Business Line activities in France are regulated by the CRE under a stable, incentive-based regulatory framework:

- four-year regulation periods: a new distribution rate was introduced on July 1, 2008, to be applied until 2012, and a new transmission rate was introduced on January 1, 2009 applicable until late 2012.;
- price indexing system of the "RPI<sup>(2)</sup> - X%" inflation reduced by a productivity factor;
- incentives for transmission investments;
- claw-back account for elements beyond the infrastructure management control (weather, fuel costs, etc.).

**New organization**

Management of the distribution and transmission networks has been respectively assigned to GrDF, since December 31, 2007, and to GRTgaz, since early 2005. Both are full subsidiaries of Gaz de France, now GDF SUEZ. In accordance with the requirements of directives 2003/55, both networks are managed independently of the Group's production and supply activities. Investment decisions fall under the authority of the Chief Executive Officers' of the subsidiaries. The GDF SUEZ Group, through the Infrastructures Business Line, still has the right to exercise economic supervision, such as approval of the concerned manager's annual financial plan.

Within the GDF SUEZ Infrastructures Business Line, the Storage and LNG terminal activities are now carried out by two independent subsidiaries, STORENGY and ELENGY. Until late 2008, they were divided into two entities grouped together under the umbrella of the Large Infrastructures Division. This organization met the criteria for separation from the rest of the Group: accounts kept strictly separate from the rest of the Group, transparency and non-discrimination with regard for all of their customers.

By managing the French LNG terminals separately, the Group is respecting its commitment to the European Commission as part of the measures to be taken during the Gaz de France-SUEZ merger. However, beyond this commitment, GDF SUEZ decided to simultaneously separate both the storage and the LNG terminal activities, which makes its organization:

- more streamlined within the Infrastructures Business Line, which is now fully organized in specialties and subsidiaries,
- easier for all the customers and stakeholders to understand, with clear, legally-formalized separation between the Infrastructures activities which is open to all customers and the Group's other businesses,
- more flexible with regard to the development of these activities in France and abroad.

Both separation transactions were approved in the December 17, 2008 General Shareholders' Meeting. Since these are full-activity Business Lines, these transactions fell under the split, which allows for the book-value transfer of all of GDF SUEZ's rights and obligations for these activities to GDF SUEZ's new, wholly owned subsidiaries, STORENGY and ELENGY. These partial asset transfers

(1) Rates are determined by the operator, published and applied to all customers under the same conditions.

(2) RPI: Retail Price Index.

# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

were established on the basis of the December 31, 2007 financial statements. They will have retroactive effect starting from January 1, 2008, and took legal effect on December 31, 2008.

Since December 31, 2008, operations on the Fos-Tonkin and Montoir-de-Bretagne LNG terminals and the marketing of these LNG terminals' services are overseen by ELENGY.

In addition, GDF SUEZ's stake in Société du Terminal Méthanier de Fos-Cavaou (STMFC) was also sold to ELENGY on December 31, 2008. ELENGY is supervising construction of the Fos-Cavaou LNG terminal and will perform operations there. STMFC, a 69.7%-owned subsidiary of ELENGY, directly markets the capacity of the Fos-Cavaou LNG terminal's.

Similarly, since December 31, 2008, STORENGY has operated and headed up the marketing of storage activities.

The organization resulting from these separations led the Infrastructures Business Line to be structured in four independent subsidiaries fully-controlled by GDF SUEZ:

- GrDF, a *société anonyme*, manages the distribution network in France;
- GRTgaz, a *société anonyme*, manages the transmission network (gas pipelines and linear compression stations) in France, and supervises GDF SUEZ's other subsidiaries and shareholdings in European transmission infrastructures: GRTgaz Deutschland or GDF DT and Megal in Germany, BOG in Austria;
- STORENGY, a *société anonyme*, manages the storage sites in France and supervises GDF SUEZ's other storage subsidiaries in Europe;
- ELENGY, a *société anonyme*, manages the Montoir and Fos-Tonkin LNG terminals. ELENGY also supervises the Group's stake in Société du Terminal Méthanier de Fos-Cavaou and will perform operate the Fos-Cavaou terminal.

Each subsidiary has its own means to manage its activities.

Service support, in particular purchasing and IT services, is provided by five shared service centers (CSP) under a single Infrastructures scope, grouped together under an operational unit for the Business Line.

**Governance of subsidiaries and shared service centers (SSC):**

STORENGY, ELENGY, GrDF and GRTgaz have a board of directors and management board. The board of directors is made up of twelve members, nine of which are appointed by the Group General Shareholders' Meeting, including two independent board members, and three of whom are employee representatives. The Chief Executive Officer is of the subsidiary only operational manager.

Services between the Infrastructures' subsidiaries with SSCs or with the parent company are covered by contracts.

An operational unit of the Business Line serves as employer and includes all five SSCs, thereby coordinating the functions of work contract management, accounting, general services, IT and purchasing.

Each SSC has a Management Board that includes the SSC's customers (GRTgaz, GrDF, STORENGY and ELENGY) and is chaired by one of the customers. Each Management Board defines the service levels, in response to customer needs, and formats the respective SSC resources. It manages and controls the service, through key performance indicators coordinated with the customer.

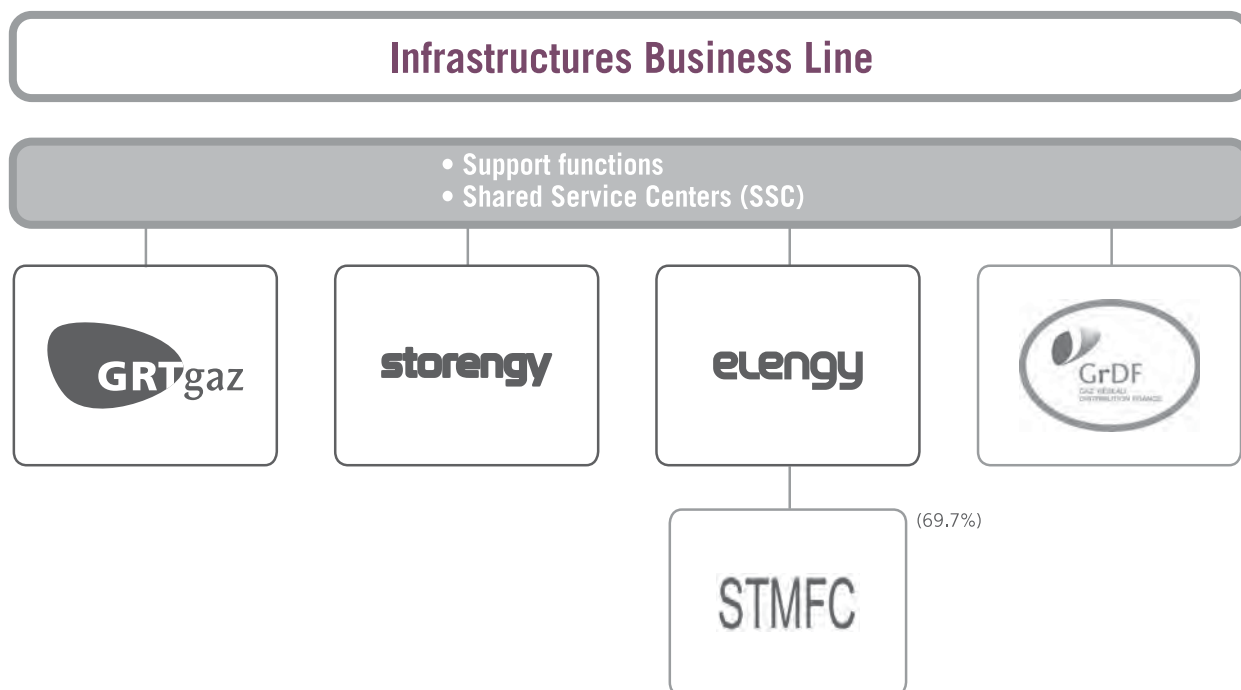
In addition, the Business Line manages the Group's shareholdings in the following subsidiaries:

- natural gas transmission in Belgium, Germany and Austria;
- storage in Germany, the United Kingdom and Canada;
- LNG terminal in Belgium;
- local natural gas distribution companies in France;
- electricity transmission in Belgium.

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● DIAGRAM SHOWING THE MAIN SUBSIDIARIES OF THE INFRASTRUCTURES BUSINESS LINE



● KEY POSITIONS AND FIGURES: REVENUES AND EBITDA FOR THE INFRASTRUCTURES BUSINESS LINE

<i>Unaudited pro forma figures, millions of euros</i>	2008	2007	Gross change as a %
Business Line revenues	5,498	5,142	6.9%
Group share of revenues	896	650	37.8%
<b>EBITDA</b>	<b>2,878</b>	<b>2,847</b>	<b>1.1%</b>

The Infrastructures Business Line, the European leader in natural gas infrastructures, manages the following through its independent subsidiaries:

- Europe's leading natural gas transmission network (32,044 km in France and a 5,100 km transmission network in Europe with stakes in the capital of several transmission operators across Europe (Belgium, Germany and Austria);
- Europe's leading natural gas distribution network (188,637 km in France);
- Europe's second largest natural gas storage capacities (10.7 bn m<sup>3</sup>);
- Europe's second-leading LNG regasification and reception capacities

The Infrastructures Business Line had a workforce of 16,725 employees on December 31, 2008.

**Infrastructures highlights in 2008:**

**March**

March 6 and 13 auction of additional storage capacities for a total of 7 TWh.

**May**

*GRTgaz buys a stake in Powernext's capital*

GRTgaz acquires a 5% holding, giving it a place on the Powernext Board of Directors.

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## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

#### June – July

##### *GRTgaz will build three new natural gas compression stations in 2008*

At the end of several European calls to tender, GRTgaz signed:

- a contract worth more than €55 million for the turnkey construction of a new station with two 5 MW compressors driven by electric motors on the Saint-Victor site. The consortium that won the bid is led by Litwin;
- a contract worth approximately €180 million for the turnkey construction of two compression and interconnection stations, each with two 10 MW compressors driven by electric motors at the Fontenay-Mauvoisin and Saint-Avit sites. The company in charge of construction is SNC Lavalin.

This new-generation station helps reduce greenhouse gas emissions, in particular CO<sub>2</sub> and nitrogen oxide (NOx) emissions.

#### October

##### *Inauguration of a storage subsidiary in Germany*

Gaz de France Erdgasspeicher Deutschland GmbH (GDF ESD) was created in late 2007 to speed up the development of the storage business in the German market, becoming STORENGY Deutschland on December 31, 2008. The subsidiary operates four storage facilities with a combined useful marketable capacity of 320 million m<sup>3</sup>, 2% of the German market.

##### *The GRTgaz natural gas transmission network includes 50 shippers*

GRTgaz marked the signature of its fiftieth transmission contract on its transport network, doubling the number of shippers in the market over the past 18 months.

#### November

##### *GrDF built a new natural gas segment in the greater Nancy (France) area*

After six months of work, on operations began in the new segment which November 6, 2008 is connected to the greater Nancy medium-pressure natural gas network.

#### December

##### *Separation of the LNG terminal and underground natural gas storage activities in France*

GDF SUEZ's General Shareholders' Meeting approved, by more than 99.9%, the separation of the LNG terminal and storage activities, resulting in the creation of ELENGY for LNG terminals and STORENGY for storage on December 31, 2008.

##### *Auction of 125 GWh in storage capacity*

This sale of SALINE MULTI's storage capacity for a two-year term involved a new product that will make it possible to quickly take advantage of market opportunities all year long. A storage capacity of 125 GWh was granted to five different companies at an annual rate of €17.35/MWh.

##### *GRTgaz and Fluxys created Capsquare*

This electronic platform dedicated to capacity trade is used to buy and sell natural gas transport capacities in the secondary market on the Fluxys and/or GRTgaz networks.

##### *GRTgaz doubles the Guyenne segment*

This 55-kilometer segment was installed by GRTgaz and is connected to the southwestern French network managed by TIGF.

This new gas pipeline, parallel to the existing segment, represents a €60 million investment and will be used to transport approximately double the previous levels.

#### 6.1.3.1.4.2 Storage activities

Adequate storage facilities are necessary to guarantee continuous supply throughout the year despite unexpected weather conditions, market fluctuations and supplier defaults.

The natural gas quantities delivered throughout the year cannot be modulated enough to enable adjustments according to demand, which can vary from one season to another. Summer surpluses need to be stored so that this stock is available when cold weather arises.

Storage also gives the Group flexibility so that it can meet the following customer needs:

- weekly: variation from one week to another due to temperature;
- daily: variation between business days and weekends;
- hourly: variation between peak times and troughs.

Finally, storage can optimize gas power plant management under certain physical limitations and help develop other types of arbitration as geographic opportunities arise.

#### Underground natural gas storage

##### France

The GDF SUEZ Group is one of the leaders in underground storage in Europe in terms of storage capacity. At December 31, 2008, STORENGY operated the following in France:

- twelve underground storage facilities in operation (of which 11 were wholly-owned, one of which had two storage structures). Nine of these storage facilities are in aquifers (total useful storage volume 8.7 billion m<sup>3</sup>) and three are in salt caverns (total useful storage volume of 1.0 billion m<sup>3</sup>);
- fifty-four compressors of a total of 216 MW of power, necessary for the withdrawal and injection of natural gas;
- facilities for processing the gas and interconnection with the transmission networks.

In addition, STORENGY operates four sites in Germany, is developing a site in the United Kingdom, and owns stakes in two storage facilities in Canada.

##### Germany

STORENGY Deutschland GmbH, which was created in 2007 under the name Gaz de France Erdgasspeicher Deutschland GmbH (GDF ESD), operates four storage facilities with a total useful capacity of 600 million m<sup>3</sup>, 320 million of which is marketed by the company, representing around 2% of the German market. Through an ambitious investment program, STORENGY Deutschland is set to develop several storage projects in salt caverns and depleted fields. In 2008, all new capacity to be developed for the Peckensen storage facility (around 180 million m<sup>3</sup>) was successfully marketed through long-term contracts and a non-discriminatory, transparent bidding process.

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**United Kingdom**

Gaz de France acquired a salt cavern natural gas storage project in Stublich, Cheshire from Ineos Enterprises. GDF Storage UK Ltd, which is wholly-owned by the Group, was created in 2007 to build and market this storage facility and became STORENGY UK Ltd on December 31, 2008. The total planned capacity is 400 million m<sup>3</sup> of useful volume, which will make it one of the largest facilities in the United Kingdom. The first capacities should be marketed in 2013. Work started at the end of 2007 and the leaching of caverns should start in late 2009.

**Belgium**

The Infrastructure Branch brings the Group's shares in Fluxys to 44.75%. It operates the Loenhout storage site. This underground aquifer storage facility represents a working volume of 625 million cubic meters of natural gas.

**Canada**

Storengy is also active in Québec through an indirect 47% stake in Intragaz. Intragaz operates two underground storage facilities developed in former natural gas fields:

- Pointe du Lac, with a capacity of 20 mm<sup>3</sup>;
- Saint Flavien, with a capacity of 100 mm<sup>3</sup>.

**Legislative and regulatory environment for storage activities in France**

Underground storage facilities are subject to mining law and can only be operated under a concession that determines the scope and the geological formations to which it applies. Concession permits are granted by state decree following public inquiry and competitive bidding. The holders of underground gas storage permits must operate them in a manner compatible with the safe and effective functioning of the interconnected natural gas networks.

Due to the separation of its underground storage activities in France, GDF SUEZ holds mining rights farmed out<sup>(1)</sup> to its subsidiary STORENGY, which operates them and therefore holds the corresponding authorizations. This system was approved by the Ministry for Energy.

Directive 2003/55 requires that parties be granted access, either on a regulated or negotiated basis, to storage facilities when required for technical or economic reasons in order to allow them to supply customers efficiently. The August 9, 2004 law established the principle of negotiated access between the authorized supplier and the storage facility operators, which have an obligation to publish the general conditions of use for the storage facilities.

The August 9, 2004 law and decree No. 2006-1034 of August 21, 2006 determine the priority rules for accessing storage facilities. Highest priority is given to the proper operation and balancing of the transmission networks. Next comes the supply of domestic and non-domestic customers carrying out missions of general interest or whose agreements do not provide for an interruptible supply, and, finally, performance of the other public service obligations set forth by law. Decree no. 2006-1034 sets out the conditions for granting and assigning storage capacity access rights and their breakdown, considering that the authorized supplier and the co-owner are also required to put together a stock, so that each year at October 31 they have enough natural gas to supply their customers from November 1 to March 31. An annual order determines the related

storage rights. The February 8, 2008 order updates the February 7, 2007 order on unit storage profiles and rights for 2008.

Finally, in accordance with the August 9, 2004 law, any refusal to access the storage facilities can only be motivated by:

- a lack of capacity or technical reasons related to the integrity and the safety of the storage facilities;
- an order of priority set by the Minister of Energy to ensure compliance with the public service obligations;
- evidence that the access is not necessary from a technical or economic standpoint in order to efficiently supply customers in accordance with the conditions set forth by the contract.

**Access to storage facilities**

In April 2004, the Group introduced third-party access to storage in France. Since then, third-parties that wish to use STORENGY's underground storage can gain access to six storage groups. Contractual conditions vary according to the terms of access to storage and the type of services required. Third-party access to the storage facilities is negotiated. At December 31, 2008, STORENGY had 22 customers for its various storage offers.

In addition, STORENGY regularly marketed available capacities in addition to those strictly necessary to cover suppliers' storage rights. In 2008, three successful capacity auctions were held. In 2009, this process will be repeated.

In addition, and as mentioned above, in 2008, STORENGY Deutschland GmbH initiated a capacity auction in the German market.

**Access rates for storage facilities**

STORENGY's offer is based on principles described to the Ministry of Energy and the CRE. The "negotiated" storage access prices are established by the storage players. The auctioning of available capacity on the market enabled the price fit to be checked. These prices were published on STORENGY's website.

The six storage groups were set up in order to take into account the characteristics of each of the storage facilities based on the nature of the gas stored, their performance (withdrawal speed) and their geographic location. In a given storage group, a customer can reserve a nominal storage capacity that entitles it to a daily nominal withdrawal capacity and a daily nominal injection capacity. Optional additional services may also be taken out.

For capacities that are not marketed through auctions, each storage group has a specific reservation unit price. This price is included in the rate, which is set on the basis of the following three principles:

- reservation storage capacity, injection speed and withdrawal speed;
- the quantity withdrawn;
- the quantity injected.

**Competitive aspects**

Storage development requires considerable long-term investments.

From an economic and technical viewpoint, proximity to the domestic market is a competitive advantage in the area of gas storage. From this perspective, STORENGY has a solid position in

(1) Farm out: under mining law, this signifies an agreement under which the party holding the mining permit (the state or the concessionaire) leases the mine to a third party in exchange for a fee.

# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

France's current market. To meet its future needs, STORENGY has an extended underground development portfolio in France.

Storage is one solution to allow customers to cover fluctuations in consumption and the needs of a changing market. STORENGY's storage options compete with several other solutions, such as the implementation of possible supply flexibility or the management of demand (through a portfolio of customers whose service may be interrupted, if applicable). It should be noted that various changes underway throughout Europe, such as the development of gas hubs and the increase in gas pipeline transmission network capacities, will help strengthen competition in the modulation market.

#### Storage activity strategy

In 2008, STORENGY marketed its capacities to 22 customers, commercializing 108.3 TWh of which 102.3 TWh were under access rights. Finally, STORENGY marketed a new offer, a "virtual multi-cycling" offer in the Southern region: Saline Multi.

In the future, STORENGY plans to:

- increase the storage capacities by 3 billion m<sup>3</sup> between 2008 and 2015;
- extend the Group's presence in Europe, in particular through existing positions in Germany and the United Kingdom;
- develop new, more flexible commercial offers.

#### 6.1.3.1.4.3 Activities of LNG terminals

##### LNG terminals

LNG terminals are port facilities that allow the receiving of LNG and the regasification of liquid natural gas.

ELENGY is Europe's second largest operator of LNG terminals (source: *G/I/GNL*). It was also one of the first to receive LNG beginning in 1965. It operates and markets these facilities.

ELENGY's two LNG terminals in France, Fos-Tonkin and Montoir-de-Bretagne, allow it to regasify 17 billion cubic meters per year.

Finally, ELENGY is coordinating the construction of the Fos-Cavaou LNG terminal, and will be responsible for its operation with a 69.7% stake, representing a regasification capacity of 8.25 billion cubic meters.

Fos-Tonkin, which was put into service in 1972, is located on the Mediterranean coast and receives LNG mainly from Algeria and Egypt. It has a re-gasification capacity of 5.5 billion cubic meters a year, which was temporarily increased to 7 billion cubic meters at the end of 2005, a wharf that can accommodate ships transporting up to around 75,000 cubic meters of LNG and three tanks with a total capacity of 150,000 cubic meters. It will return to a capacity of 5.5 billion cubic meters after the new Fos-Cavaou terminal comes into service. Renovations were carried out in the mid-1990s, with particular focus on modernizing and reinforcing the security system.

Montoir-de-Bretagne, which was put into service in 1980, is located on the Atlantic coast and receives LNG mainly from Algeria, Nigeria and Egypt. It has a regasification capacity of 10 billion cubic meters a year, two wharfs that can accommodate ships transporting up to around 200,000 cubic meters of LNG and three tanks with a total capacity of 360,000 cubic meters. The initial service life of this terminal is estimated at 40 years. In order to respond to the

growth of LNG in France and in Europe, at the end of 2006, Gaz de France launched an "open season" subscription call to extend the capacities of the Montoir-de-Bretagne terminal from its current 10 billion cubic meters per year to a total of up to 16.5 billion cubic meters per year, subject to subscription requests.

As a result of the open season subscription call, which closed on December 29 2008, it was decided to go ahead with the refurbishment of the terminal's facilities with a view to its operation up until 2035. There will be another consultation under the same transparent, non-discriminatory conditions when the economic environment is right.

Fos-Cavaou, located in Fos-sur-Mer on the Mediterranean coast, is a third LNG terminal being built by the Group in France following a new supply contract for gas from Egypt, and to meet the growth of the LNG market. This new terminal should be put into service in the summer of 2009. It will have a regasification capacity of 8.25 billion cubic meters per year, a wharf that can accommodate the world's largest methane tankers and three tanks each with a capacity of 110,000 cubic meters. This terminal is owned by a dedicated subsidiary, Société du Terminal Méthanier de Fos-Cavaou (STMFC) in which ELENGY holds a 69.7% stake and Total Gaz Electricité Holding France SAS holds a 30.3% stake. GDF SUEZ has a 20-year subscription. Total subscribed to 2.25 billion cubic meters of regasification capacities per year. Moreover; the remaining terminal capacities (10% of the total capacity or 0.825 billion cubic meters/year), reserved for short-term operations, was subscribed in June 2007 for a three-year period following an open season held by EDF, ESSENT Trading International, ENI SpA and Distrigaz. So at December 31 2008, STMFC had six direct clients.

The Business Line will also hold the GDF SUEZ Group stake in the Zeebrugge terminal, the operation and marketing of this terminal's capacities (9 billion cubic meters) being Fluxys' responsibility.

##### Legislative environment of regasification activity in France

No authorization is required for LNG regasification. However, an LNG terminal is a facility subject to classification for environmental protection purposes (Seveso facilities) and, as a result, its operation is subject to a specific authorization by the prefecture. These authorizations were given to ELENGY, by prefectural decree, on December 22, 2008 for the Fos-sur-Mer sites and December 19, 2008 for Montoir-de-Bretagne.

##### Access to LNG terminals

Just as for the transmission network, in August 2000, the Group opened its LNG terminals to regulated third-party access. The access rates, general conditions and allocation rules are available on the internet. Capacity reservation requests can involve periods shorter than, equal to or longer than one year. These provisions allow terminal customers to meet their obligations toward their suppliers.

In 2008, ELENGY had nine customers for its LNG terminals in Fos and Montoir. For its part, Société du Terminal de Fos-Cavaou (STMFC) has six subscribers for its Fos-Cavaou terminal.

##### Access rates for the LNG terminals

The access rate for the LNG terminals is regulated. It is set in accordance with provisions that incorporate the same general principles as those applicable to the access rate for the transmission network, namely, the application of a rate of return to an asset

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base recognized by the CRE, called the regulated asset base, and consideration of annual amortizations and operating expenditures.

The rate of return recognized by the CRE is differentiated according to the seniority of the investments.

The Group's regulated asset base primarily includes the following asset groups: unloading equipment and support facilities, regasification facilities, civil engineering work and buildings, tanks.

To determine the annual fixed costs, the CRE uses a straight line amortization method over an economic life of 20 to 40 years for the different components of the LNG terminals. Most of the assets are depreciated economically over 40 years.

The rate currently in force was adopted by a ministerial decision of December 27, 2005. This tariff is based on the rate proposal made by the CRE on October 26, 2005, sent to ministers on October 31, 2005.

The applicable rates of return are 9.25% (real <sup>(1)</sup>, pre-tax) for assets put into service before January 1, 2004 and 10.5% (real, pre-tax) for assets put into service after January 1, 2004.

The regulated assets base was €367 million at January 1, 2009, against €363 million at January 1, 2008 and €373 million at January 1, 2007.

This rate applies to the two existing terminals, Fos-Tonkin and Montoir-de-Bretagne.

The rate formula in force consists of six terms: the number of offloads, the quantities discharged, the use of receiving capacities, the use of regasification capacities and an "in-kind" amount, along with a seasonal adjustment (called the regularity term) as an incentive to distribute deliveries uniformly from one season to the next.

This formula was developed in close collaboration with CRE and clients.

The subscription agreement includes a minimum payment obligation for the subscriber equal to 90% of the annual commitments, excluding the in-kind amount, based on the quantities off-loaded and the number of offloads subscribed per terminal.

There are three standard services offered: a "continuous" service, a "band" service and a "spot" service.

Furthermore, users have additional means of flexibility at each terminal. These means consist of the possibility of carrying out reciprocal LNG exchanges and of entering into a secondary market for regasification capacities.

The CRE has announced its intention to define and apply a new tariff, applicable from mid-2009 onwards. Preparatory talks to this effect have started with ELENZY and STMFC. There will be individual tariffs per terminal.

**Strategy of LNG terminal activities**

In 2008, ELENZY renewed the Fos-Tonkin terminal partnership with Air Liquide for the exchange of cold energy. In addition, ELENZY has signed a contract with Enalp to purchase "green" electricity to meet demand at the Fos-Tonkin and Montoir terminals beginning January 1, 2009.

The GDF SUEZ Infrastructure objectives in the area of LNG terminals are centered on the following key points:

- putting into service the Fos-Cavaou terminal in the second half of 2009, representing 8.25 billion cubic meters of new capacity;
- the refurbishment of the Montoir terminal and the reconfiguration of the Fos-Tonkin site to prolong their activity;
- maintaining expertise in activities related to GDF SUEZ terminals;
- the active participation of the Business Line in GDF SUEZ regasification projects, in order to reach a global capacity of 44 billion cubic meters by 2013 in terminals whose assets are consolidated by the Group (33 billion cubic meters in France and Belgium).

(1) This rate is applied to revalued assets. The revaluation index used is the consumer prices index excluding tobacco calculated by the French statistics office (INSEE).

# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

#### 6.1.3.1.4.4 GrDF's distribution activities

At December 31, 2008, the French distribution network operated by GrDF, a 100% subsidiary of GDF SUEZ, was the leading natural gas distribution network in Europe by length, with 188,637 kilometers and 9,265 municipalities connected to the natural gas network, accounting for around 77% of the French population. GrDF operates the public gas distribution network through long-term concessions, virtually all of which must be renewed on expiration in accordance with law No. 46-628 of April 8, 1946.

From its first years of existence, Gaz de France set up common structures with EDF, in particular to manage the gas and electricity distribution networks and customer service. These relationships changed on July 1, 2004, pursuant to European directive 2003/55 relative to the deregulation of the energy markets, as follows:

- management of the distribution network is independent of the Gaz de France production and supply activities;
- management of the distribution network is entrusted to a specific division of Gaz de France, Gaz de France Réseau Distribution (or GRD);
- Gaz de France and EDF have remained partners in a joint division (EDF Gaz de France Distribution) that builds, operates and maintains their respective distribution networks, as well as effects repairs, meter-readings and local relations with the departments and municipalities. This organization, continued after the separation of GrDF, produces cost savings and convenience for customers (notably a single bill for gas and electricity).

#### ● DEVELOPMENT OF THE GROUP'S NATURAL GAS DISTRIBUTION NETWORKS IN FRANCE

	Fiscal year ended December 31	
	2007	2008
Network length (kilometers)	185,839	188,637
New municipalities connected	103	122
Users connected (millions) <sup>(*)</sup>	11.1	11.1
Gross quantity transported (TWh) <sup>(**)</sup>	310	325

(\*) Number of contractual delivery points on the distribution network.

(\*\*) Gross withdrawals including various losses and differences at the Points of Interface between Transmission and Storage (PITS).

The distributor foresees that over the next few years, new municipalities will be connected at a rate comparable to the rate for the last three years. The distributor also aims to continue investing to improve the quality of the service and safety of its distribution networks.

Since its creation on December 31, 2007, GrDF fulfills all the responsibilities of the Gaz de France distributor and collects the transmission revenues. Since the merger of Gaz de France with SUEZ, GrDF has been a 100% subsidiary of the GDF SUEZ Group. It is fully consolidated.

Furthermore, the law sets forth provisions allowing a reconciliation of the independent actions of the subsidiary's managers, set forth by directive 2003/55, and the preservation of shareholders rights. Thus, GDF SUEZ has a right of economic control over its subsidiary, in particular through approval of the budget and of the financing and investment policy of the network manager.

#### GrDF

GrDF operates the main natural gas distribution network in France and the premier distribution network in Europe. Virtually all of the French municipalities with a population of more than 10,000 in the service area are connected to this network. GrDF networks have about 11.1 million delivery points in 9,265<sup>(1)</sup> municipalities supplied with natural gas in France. During the fiscal year ended December 31, 2008, almost 325 TWh of natural gas was transported, compared with 310 TWh in 2007.

The main activity of the distribution business in France is to transport the gas sold by the shippers (suppliers or agents) to end-customers. The number of customers connected to the GrDF network who switched to an alternative natural gas supplier rose from 130,000 at the end of 2007 to 500,000 at the end of 2008.

#### GrDF's concessions

At December 31, 2008, GrDF had a portfolio of 6,170 natural gas concession contracts covering a total of 9,265 municipalities supplied with natural gas. These agreements are almost all concession agreements for natural gas signed for an initial term of 25 to 30 years.

(1) All the 2008 data mentioned in this paragraph refers solely to the natural gas distribution business. It therefore excludes data referring to propane supplies as does not fall this business within the scope of the GrDF distribution subsidiary.

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The 9,265 municipalities served by GrDF through 6,170 agreements are divided into two groups:

- 8,876 municipalities to which Gaz de France has exclusive rights pursuant to a French law dated April 8, 1946. For these municipalities, GDF SUEZ is legally the only operator to which they can delegate the public distribution of gas. These municipalities granted concessions to Gaz de France for their public distribution of gas prior to the service plan dated April 3, 2000, as well as the municipalities allocated to Gaz de France under that service coverage plan;
- 389 municipalities through concession agreements allocated to Gaz de France for the 2003-2008 period for a term of 25 or 30 years at the end of a competitive bidding procedure initiated by the local authorities. When these agreements expire, they will once again be open to competitive bidding. On December 31, 2008, these municipalities represented around 0.15% of the distributor's customers and sales revenues.

These concessions were all transferred to GrDF by law 2006-1537 dated December 07, 2006.

At December 31, 2008, the average time remaining on GrDF's concession agreements weighted by volumes distributed was 17 years.

**Organization of the distributor**

GrDF is a business corporation (*société anonyme*) with a board of directors, a Chairman and a Chief Executive Officer. The Board of Directors consists of 12 members appointed for four year terms, of which nine members are appointed by the Shareholders' Meeting (two of which are independent directors) and three are elected by employees. It appoints the Chief Executive Officer for a term of 3 years.

GrDF has all the property, rights and obligations from Gaz de France in the area of distribution and, in particular, the concession agreements with the municipalities for the supply of natural gas. GrDF is particularly responsible for the development, operation and maintenance of the natural gas networks, the investment policy, the management of the concession agreements as well as third-party access to the networks in a transparent and non-discriminatory manner.

The organization provides for maintaining a department common to the two distribution companies, GrDF and ERDF.

GrDF is fully consolidated.

**Contractual relationships between ERDF and GrDF within the Common Department**

ERDF and GrDF are linked by an agreement which aims to define their relations in the Common Department, its competences and the division of the costs resulting from its activity. This agreement was signed for an indefinite period and may be terminated at any time following 18 months' notice during which the parties agree to renegotiate an agreement.

The provisions of the agreement state that the Common Department should conduct and implement activities coming within the field of distribution (whether these are activities are carried out exclusively for ERDF or for GrDF, or simultaneously and inseparably for both parties), and should implement the policies and decisions

relative to the missions assigned to it to achieve a certain level of performance.

Governance of the Common Department comes from two Common Department management bodies:

- an Executive Committee composed of the Directors of the two subsidiaries. This committee is responsible in particular for:
  - managing the interactions between the policies of the two companies,
  - ensuring compliance with the agreement and any changes in this agreement,
  - appointing the Regional Directors of the Common Department and the Plant Directors at the proposal of the Committee for combined gas-electricity activities or the respective subsidiaries for single-energy activities,
  - deciding on changes to the general organization of the Common Department;
- a committee, composed of the ERDF Operations Manager and the GrDF Assistant General Manager. It deals in particular with issues concerning the combined activities that do not come within the competence of the Executive Committee, such as any changes to the rules for dividing expenses and income, the institution of legal proceedings against third parties and the appointment of the senior executives of the Common Department;
- there are also two specialized committees: an HR committee and an IS-IT committee.

The responsibilities of the Common Department also include:

- providing access to gas, by signing and performing connection contracts for all customers, third parties (installers, developers, etc.) and gas vendors;
- acting as interface between the Gas Distributor and gas vendors for the day-to-day management of transmission agreements.

Reception desks provide the interface between the Common Department and all suppliers and customers. GrDF maintains some physical reception desks enabling direct contact with customers. The mission of these reception desks is to provide customers with information concerning the opening of the market to competition and the new rules of operation, and to offer them guidance during the different phases of their agreement (moving in, service start-up, information concerning the term of payment and solidarity, moving out).

In 2008, meter-related activities represented for GrDF and EDF almost 93 million meter readings and 6.4 million customer service calls including around two million gas service calls. The services are provided by almost 7,500 <sup>(1)</sup> technicians working for the two companies.

**Legislative and regulatory environment for distribution in France**

Directive 2003/55 defines the distribution of natural gas through local or regional networks of gas pipelines for the purpose of supplying both professional and domestic customers, but not including the supply. Therefore, in practice, it covers the development, maintenance and

(1) This data only counts technicians carrying out physical operations on the network in 2008.

# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

operation of the distribution network and transmission through this network, as well as the delivery of natural gas.

Management of the distribution network is provided by GrDF.

#### Distribution monopoly

Articles 1 and 3 of the nationalization law of April 08, 1946 grant Gaz de France a monopoly of distribution. GrDF now has this monopoly:

This monopoly is, however, subject to certain exceptions:

- the first exception stems from article 23 of the law of 1946: local gas operations – state-controlled and semi-public companies – that were already in the public sector were not to be nationalized, but were to have their status maintained. The law authorized these non-nationalized distributors to expand their activity to neighboring municipalities if these municipalities did not have a gas distribution network (article 88 of the law of February 6, 1992 relative to the territorial administration of the Republic, as amended);
- the second exception stems from article 50 of the law of July 2, 1998 with various economic and financial arrangements and subsequently from law n° 2005-781 of July 13, 2005. All municipalities not supplied with gas can award their public distribution to the certified operator of their choice.

#### Concession system

Natural gas distribution is considered a communal public service under French law (local municipalities or, if applicable, their public cooperation establishments as mentioned in Article L. 2224-31 of the General Code of Territorial Communities). Distribution networks are operated by the distributor under concessions granted by municipalities or groups of municipalities. The concessions which thus link the municipalities and GrDF are entered into or renewed, depending on the case, on the basis of standard specifications determined jointly by the National Federation of Concession Granting and State-Controlled Municipalities (FNCCR) and Gaz de France in 1994.

Within the scope of the concession, the distribution structures belong to the municipalities as soon as they are constructed (and are therefore designated as reverted property for which the municipality assumes full ownership when the concession ends), even though they are built and financed by the distributor, which has an exclusive right to use them. This ownership by the municipalities was confirmed by the law of December 7, 2006.

The concession agreement is, by nature, limited in duration: the municipalities and the concessionaire determine a duration, which is generally between 25 and 30 years, on a case by case basis. Early termination of the concession agreement is strictly controlled with respect to the (limited) reasons and to the date (half of the concession duration must have already expired); it is also subject to two years' notice and results in compensation paid to the concessionaire by the concession granting authority.

#### Access to the gas distribution network

Transparent and non-discriminatory access to the natural gas distribution network is available to gas purchasers, suppliers or their agents. As in the case of the transmission network, GrDF publishes the general conditions for using its equipment and distribution installations on its website and provides them to the CRE.

Network users must obey the general conditions for this access. The shipper, which may be an eligible customer, a supplier or its agent, signs a transmission agreement with GrDF. The transmission agreement includes:

- the conditions for connecting the delivery points to the transmission agreement;
- the rate terms (prices and any additional expenses);
- the rules for determining the quantities transmitted;
- the billing terms and conditions.

The delivery agreement may take one of two forms:

- either the form of a specific agreement adapted to the customer's needs (then called "Direct Delivery Agreement" or CLD);
- or the form of Standard Delivery Conditions (or CSL) set uniformly for all customers that do not have any special needs.

#### Transmission rates for the gas distribution network

Since July 01, 2008 GrDF has applied the tariffs set by the ministerial decree dated June 15, 2008, henceforth referred to as "ATRD3". On February 28, 2008 these items were the subject of a proposal drawn up by the CRE. The real rate of return applied to the regulated asset base is 6.75% <sup>(1)</sup> (real, pre-corporate tax) for all assets, regardless of when the assets were put into service.

The regulated asset base is composed of all the assets related to the distribution activity, including pipelines and connections, pressure-regulation stations, meters, other technical facilities, construction and information technology systems. To determine the annual capital expenses, the CRE applies a depreciation period of four to 45 years depending on the nature of the equipment. Mains and connections, which represent 96% of the assets appearing in the regulated asset base, are depreciated over 45 years.

The regulated asset base on which the new rate for use of the transmission network was determined was €13,174 million at January 1, 2008.

The regulated asset base, on which the distribution network usage rates in force in 2006 and 2007 were determined, amounted to €12,455 million on January 1, 2006. On January 1, 2007, it was €12,866 million.

The main characteristics of this new tariff are:

- **initial tariff increase:** at July 1, 2008, the ATRD3 tariff rose by 5.6% in relation to the ATRD2 tariff;
- **incentive-driven, multi-annual regulation method of the price cap variety** put in place: the tariff is established for four years from 1 July, 2008, revised annually for inflation (consumer price index excluding tobacco) reduced by a productivity factor of 1.3%;
- **specific incentive for net operating costs:** the regulator sets GrDF on a base of operating costs which are deemed to be "controllable" (excluding centrally-managed costs, coverage of losses on the network and fixed production costs) an annual target of a 2.7% reduction in constant euros. At the end of the tariff period, the operator can keep 40% of the amount by which this target is exceeded;

(1) This rate is applied to revalued assets. The revaluation index used is the consumer prices index excluding tobacco calculated by the French Statistics Office (INSEE).

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- **creation of a claw-back account for expenses and income (CRCP):** this account will make it possible, from July 2010 onwards, to take into account, when deciding on changes to tariffs, any differences between actual figures and forecasts on certain items which are difficult to predict (weather events affecting volumes, coverage for losses and various shortfalls, capital expenses, penalties for exceeding subscribing capacity, penalties linked to quality of service, restructuring following CRE audits). It provides a nominal return of up to 4.2%. It is discharged within the range of + or -2% of the provisional revenues (variation in addition to the CPI -1.3%);

- **Introduction of a service quality monitor:** to balance the productivity incentive, GrDF regularly publishes, on the information system consulted by the gas suppliers, 30 or so indicators of the service quality, five of which are subject to penalties or rewards, depending on the extent to which pre-defined targets are met.

The same tariff structure applies to all zones operated by the distributor. They include four main rate options that depend solely on the consumption characteristics of the end customer concerned:

- three two-part options, each of which includes a subscription and a term which is proportionate to the delivered quantities;
- a fourth three-part option, which includes a subscription, a term which is proportionate to the daily capacity subscribed and a term proportionate to the quantities delivered.

An additional rate, called a “proximity”, rate is intended for large consumers located in the immediate vicinity of the transmission network. It includes a subscription, a term which is proportionate to the daily capacity subscribed and a term which is proportionate to the distance from the transmission network.

In addition, the decree of June 15, 2008 establishes the main tariff details for the new concessions acquired after the competitive bidding procedure, which are not covered by the equalized ATRD3 tariff; the tariff offered by the operator must be determined by the application of the same coefficient to all the terms of the ATRD3 tariff grid, considered as the reference grid.

The services catalogues (services provided to suppliers and to end customers) not covered by the transmission rate were updated on July 1, 2008 and January 1, 2009 respectively after they were presented to the CRE and to gas suppliers. These updates apply the principles of the service rate changes as defined in the catalogue of services.

**Code of Conduct**

In accordance with the law, GrDF produces, and updates every year, a Code of Conduct. This presents the initiatives set up by the manager of the distribution network which serve as a guarantee for all users (end-customers and natural gas suppliers) that its professional practices are objective, transparent and non-discriminatory, and respect the confidentiality of commercially sensitive information (CSI).

A control mechanism has been set up within the network operator in order to ensure that commitments are kept in Business Line activities.

GrDF presented its 2008 report on the implementation of its Code of Conduct to the CRE in accordance with the legal provisions.

**Competitive Aspects**

The gas distribution activity in France is mostly carried out by GrDF. Twenty-two distributors that were not nationalized under a French law dated April 8, 1946 represent 5% of the national market for gas distribution. GDF SUEZ Infrastructure has shares in the two largest local distribution companies: Gaz de Strasbourg (24.9% of the capital) and Gaz de Bordeaux (24%).

**GrDF Strategy**

In 2008, GrDF implemented the following four strategic focuses, which form the base of its “Success Through Involvement” business plan:

- to establish the identity and legitimacy of the new company;
- to position itself as a unifying player with respect to sustainable and profitable growth of natural gas *vis-à-vis* the stakeholder;
- to put safety at the heart of industrial and economic performance;
- to promote labor and managerial dynamics.

Given the profound transformations in the energy market, the GrDF gas distribution subsidiary intends to become a benchmark company in Europe in the field of natural gas distribution. To do this, it will continue its growth while maintaining high performance levels in terms of quality, safety, respect for the environment and economic performance in serving territorial communities, its customers and all stakeholders.

**6.1.3.1.4.5 Transmission Activities**

GRTgaz owns the longest European natural gas, high pressure transport network, for the transmission of gas both for third parties and certain entities of the Group. In addition, GDF SUEZ has equity interests in three transmission networks located in Germany (Megal, 1,087 km), Belgium (Fluxys network, 3,800 km) and Austria (BOG, 245 km), totaling, excluding Fluxys, an accumulated length of over 1,332 km and a contributory length of 561 km.

**GRTgaz**

GRTgaz, owner of its network, develops and maintains the transmission network, directs the natural gas flows and the network access services for gas suppliers. It also handles marketing and sales.

GRTgaz owns the longest high-pressure natural gas transmission system in Europe. At December 31, 2008, the French system included 32,044 kilometers of gas pipelines including 6,958 kilometers of very high pressure, main network pipes complemented by more than 25,086 kilometers of regional networks, creating an extensive grid covering the French territory. During the fiscal year ended on December 31, 2008, GRTgaz transported 59.3 billion cubic meters of gas through the French grid, or 678 TWh compared with 667 TWh in 2007.

GRTgaz’s main network transports natural gas from the network entry points (LNG terminals, interconnection points with the international gas pipeline networks) to the regional network. The regional network transports natural gas to about 4,300 delivery stations connected to industrial customers and to local distribution networks. The average age of the pipelines is 27 years (in the regulated asset base evaluation for the calculation of rates, the economic life of the pipelines is 50 years).

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## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

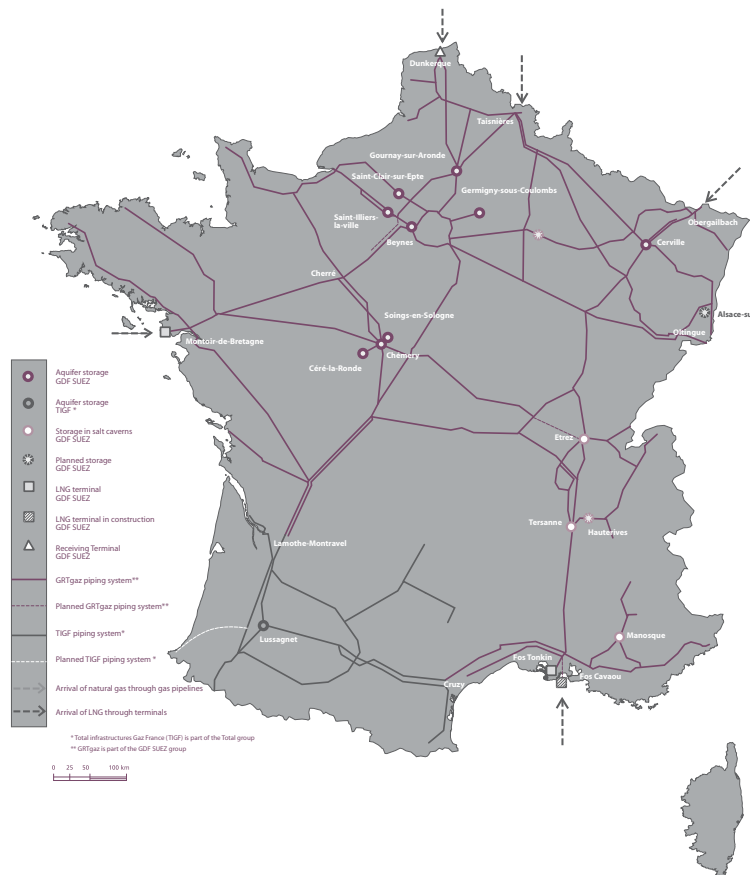
GRTgaz also operates 25 compression stations intended to circulate the gas in the transmission pipes and maintain the required pressure for optimum transport conditions. At January 1, 2009,

these stations included 83 gas compressors for a total compression power of 479 MW. GRTgaz also uses compression facilities located at six storage sites operated by the STORENGY subsidiary.

#### ● CHANGES IN THE LENGTH OF THE NETWORK AND VOLUMES OF GAS TRANSPORTED

	Fiscal year ended December 31			
	2005	2006	2007	2008
Main network (kilometers)	6,757	6,757	6,786	6,958
Regional network (kilometers)	24,832	24,853	24,931	25,086
<b>TOTAL (KILOMETERS)</b>	<b>31,589</b>	<b>31,610</b>	<b>31,717</b>	<b>32,044</b>
Volumes transported	711	687	667	678

#### ● MAP OF THE TRANSMISSION SYSTEM, UNDERGROUND STORAGE POINTS AND LNG TERMINALS IN FRANCE AT JANUARY 1, 2009.



\* Total Infrastructures Gaz France (TIGF) is part of the Total group  
 \*\* GRTgaz is part of the GDF SUEZ group

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### Legislative Environment of natural gas transport activity

The directive 2003/55 provides that the transport activity covers the transport of natural gas through high pressure gas pipelines. This activity is upstream of the distribution activity and is intended to transport natural gas through national or regional networks (in the case of France) of gas pipelines to supply customers, but does not include the supply of gas itself.

In order to ensure the independence of the network manager, the Group separated the management of the operation of its transport network from the supply and production activities, in accordance with the requirements of directive 2003/55. The transport network is managed by GRTgaz (for more details concerning the regulatory requirements, see section 6.1.3.1.4.7 – “Separate management, then transfer to subsidiary managers of the transport and distribution networks”).

Statutory non-discriminatory access to the gas transport networks is under the control of the CRE.

The law of January 3, 2003 states that the construction and operation of natural gas transport pipes are subject to an authorization granted by the competent administrative body, the conditions for which are set by Council of State decree (decree n° 85-1108 of October 15, 1985, modified by decree number 2008-944 of October 3, 2003). Authorizations are nontransferable. Those receiving the authorizations to transport natural gas carry out their responsibilities in accordance with the conditions established by these authorizations and by the terms and conditions appended to them.

### Transport rates in the GRTgaz transmission network

Since transporting natural gas is a regulated activity, the rates that GRTgaz charges for transport services are established, according to the law of January 3, 2003, jointly by the ministers responsible for the economy and energy upon the proposal of the CRE.

### Determination of transmission rates for the GRTgaz transmission network

The new tariff, in force since January 1, 2009 and the terms of which are set for a period of 4 years (2009–2012), was determined using a “cost plus” regulation method, aiming at obtaining income which corresponds to:

- the operating expenses necessary for the management, proper functioning and maintenance of the transport networks net of any subsidiary revenues;
- the depreciation expenses for the fixed assets used to operate transport infrastructure (also called “regulated asset base”). These expenses are determined according to:
  - the value of the assets making up the network, based on the economic values of these assets; this base is adjusted to reflect the acquisition of new assets and the withdrawal of assets at the end of their financial lives, and is revalued every year on the basis of the consumer prices index excluding tobacco,
  - the service lives applicable to the different categories of assets included in the regulated asset base, depreciating these assets using the straight-line method;
- the return on the regulated asset base (RAB), with:
  - the application of a rate at the economic value of the assets included in the RAB. This rate is determined by reference to the

economic risk inherent in operating transport infrastructures. A real pre-corporate tax base rate is set in the new tariff at 7.25%. It is increased by 1.25% for the assets put into service between 2004 and 2008, or decided on before 2008 and put into service from 2009 onwards. An increase of 3% is granted for all the investments creating new capacity on the main network. This second increase is limited in time, with the period always being ten years for assets decided on in 2008 and put into service from 2009. Decisions made concerning awarding of bonuses from the previous incentive system remain unchanged,

- in addition, a return on the assets already paid for with investments but which have still not come into service (fixed assets under construction). The rate of this return has been fixed, since January 1, 2009, at a level which is comparable to the cost of the debt, i.e. 4.6%, nominal, pre-tax.

The regulated asset base includes pipes, compression stations, and pressure regulating/metering stations. To determine the annual fixed costs, the CRE applies a depreciation life of 50 years for transmission pipes and 30 years for compression stations and pressure regulating/metering stations.

The tariff applicable until December 31, 2008 had been in force since January 1, 2007. It was determined using a regulation method called “cost plus”.

### Process for developing transport rates for the GRTgaz transport network

The Minister for Economic Affairs and the Minister for Energy approve the transport network use rates upon proposal by the CRE. The CRE proposes rates based on technical and financial discussions with GRTgaz and other operators. The final development phase of the proposal generally includes comments from the operators management and a public consultation to obtain market opinion.

The rates currently in force were determined based on projected operating expenses and projected gas volumes to be transported during the period these rates are applicable. With this in mind, GRTgaz presented the CRE past developments and forecast assets and operating expenses, along with changes in subscriptions. Following the analysis of these items, the rate level for transport was proposed by the CRE pursuant to the aforementioned rates of return.

The regulated asset base to which the new rates have applied since January 1, 2009 amounts to €5,896 million plus €649 million for fixed assets under construction.

The regulated asset base to which the previous rate applied from January 1, 2007 amounted to €5,426 million plus €361 million for fixed assets under construction. At January 1, 2008, this regulated assets base amounted to €5,567 million, in addition to €435 million in fixed assets under construction.

As in the previous rate, a claw-back account for expenses and income is supplied, for previously determined items (including capital expenses, transmission revenues, operating energy expenses, penalties linked to service quality), by all or part of the differences between forecast and actual amounts. The final settlement of this account is carried out through an increase or decrease in revenues to be recovered by rates to follow. It earns an annual rate of 4.2% before tax.

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## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

The tariff in force since January 1, 2009 was the subject of a decree dated October 6, 2008, approving the tariff proposal submitted by the CRE on July 10, 2008 to the Minister for Energy, and Minister for Economic Affairs and setting the use tariffs for natural gas transmission networks for the period 2009–2012.

The previous tariff was set by an order dated December 27, 2006 approving the use rates for the natural gas transport network, amending decree No. 2005-607 of May 27, 2005, and the order and notice of May 27, 2005 relative to defining balancing zones and to use rates for natural gas transport systems.

This decree was published in the Official Journal of the French Republic on December 24, 2008.

#### Rate structure for transport rates for the GRTgaz transport network

The transport rates for transport networks in France are currently calculated according to a multi-zone entry/exit principle based on a two-zone territorial division for GRTgaz with the new 2009-2012 tariff. This model is becoming more widespread in Europe, following the recommendations of the “Madrid Forum” (body composed of European transport system operators) concerning the internal gas market. The transport rate for the GRTgaz transport network primarily includes the following terms:

- a main network entry capacity term based on the capacity subscribed by the user for entry to the main network from an adjacent network or an LNG terminal;
- a subscribed capacity term for connections between zones;
- a exit capacity term at an interconnection points of networks, to the regional network or to a storage facility;
- a subscribed capacity term for transport through the regional network;
- a subscribed capacity term for use of the delivery stations and annual fixed fees for each delivery station used by industrial customers.

#### GRTgaz Code of Conduct

In accordance in particular with law no. 2004-803 of August 9, 2004, GRTgaz has developed a Code of Conduct which aims to ensure, in relation to its activities concerned with marketing access to the natural gas transport system to third parties, the following:

- the transparency of the information necessary for customers to access or connect to the transport network;
- non-discrimination in the treatment of each category of users of the transport network;
- the confidentiality of Commercially Sensitive Information (CSI) relative to the market, in order to avoid any revelation to a person foreign to the operator (except in the cases set forth by law).

The application of this code is verified by a compliance and effectiveness control program. The results of this program and the possible improvements resulting from it are the subject of an annual report established by GRTgaz, which is published on its website and sent to the CRE.

#### Transport Europe

##### Germany

Megal GmbH & Co.KG (“Megal”), owned by the GDF SUEZ Group (44%), E.ON Gastransport (51%) and ÖMV (an Austrian energy company) (5%), is a German registered company located in Essen. This company owns a cumulative network of canalizations that was 1,087 kilometers long on December 31, 2008 connecting the Czech and Austrian borders to the French border. This company is proportionally consolidated.

GRTgaz Deutschland GmbH, 100% owned by the Group, has about 58% of the Megal network capacity. It began marketing capacity on October 1, 2005. GRTgaz Deutschland provides transport services for 19 different customers; it also manages one of the seven H gas market zones in Germany.

##### Austria

BOG, owned by the Group (34%), by ÖMV (51%) and by E.ON (15%) has the right to market capacity for 245 kilometers of pipeline owned by ÖMV running from the Slovakian border to the German border with a downstream connection to the Megal transport pipeline until 2029. BOG was restructured in 2007 by its three shareholders, becoming an autonomous transport company controlled by ÖMV. BOG also extended its rights from 2014 to 2029. On this occasion, Gaz de France sold 10% of BOG to E.ON. This company is not consolidated.

##### Belgium

The Infrastructures Business Line holds the Group’s shares in Fluxys (44.75%) and Elia (24.45%).

Fluxys, listed on Euronext Brussels, is the independent operator of the natural gas transport infrastructure in Belgium. It operates, maintains and develops its integrated natural gas transport infrastructure and storage facilities in Zeebrugge and Loenhout. As part of the regulated access to its infrastructures, Fluxys markets transport and storage capacities, which permits the supply of natural gas to consumers in Belgium. In addition to its transport services, Fluxys offers natural gas transit services from border to border. Natural gas transiting through the Belgian network is transported to the Netherlands, Germany, France, Spain, Italy, and the United Kingdom.

Elia, a listed company, is a subsidiary of Elia System Operator (ESO) which was created in 2001 to manage the high voltage electricity transmission network in Belgium. ESO and Elia have been consolidated by the equity accounting method since the Belgian government made ESO manager of the transmission network. The transmission network tariffs are approved by the energy sector regulator (CREG).

#### Transport business strategy in Europe

GRTgaz intends:

- to promote new offers, such as “Use it or Lose it”, a new balancing system, and develop direct trading on the Gas Exchange Points (PEGs);
- to invest to meet the growing demand of the natural gas market and connect new combined cycle power stations and new LNG terminals, as well as to make exchanges smoother through the streamlining of the network and, the reduction of the balancing zones;

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- to work on the harmonization of rules, to encourage cross-border trading of natural gas.

In order to reach these objectives, GRTgaz intends:

- to increase its capacity by 15% between 2008 and 2013;
- to invest about €1.7 billion between 2008 and 2011.

**6.1.3.1.4.6 The sustainable development of infrastructure businesses**

Each company is committed to obtaining certification, by the International Organization for Standardization (ISO), of its underground storage, regasification, transport and distribution businesses. These certifications cover commercial services as well as industrial business and the odorization of natural gas delivered through the network.

STORENGY and ELENGY decided to have an outside certification organization recognize its achievements in supplying services to customers using the infrastructure placed under its responsibility, as well as its control of its industrial activity with respect to the environment and safety. The performance and the control of its industrial business are audited annually. The certification of commercial services related to the “storage of natural gas in underground storage facilities”, the “regasification in LNG terminals” and the “odorization of natural gas delivered through the transport systems” was confirmed following the renewal audit of June 2008. ISO 14001 certification for the control of its industrial activity in the area of the environment was renewed for the entire industrial activity in France [12 underground storage points (drilling, work-over), and 2 LNG terminals], and in the area of safety is subject to an annual external evaluation on one third of the sites.

GRTgaz operates the transport network from its national distribution center in Paris. This integrated system allows monitoring of the installations in terms of safety, their management in terms of gas transfers and control of the gas supplied to customers.

In 2008, GRTgaz had its ISO 9001 quality certification renewed for all of its businesses, including the transport and delivery of gas and the odorization of the gas transported.

In addition, in 2006, GRTgaz obtained ISO 14001 environmental certification for its compression businesses for six stations (Palleau, Vindecy, Evry, Brizambourg, Pitgam and Morelmaison). This certification was renewed at the end of 2007, with four additional stations (Voisines, Laneuvelotte, Bréal, Taisnières), and the area was extended to two new stations (Cherré and Roussines) at the end of 2008.

In 2001, GRTgaz also launched a multi-annual transport pipeline inspection and rehabilitation program. At the end of 2008, 56% of its transport network had been refurbished.

GrDF’s management system has had ISO 9001 quality certification and ISO 14001 environmental certification for all of the natural gas transport businesses in France since July 29, 2008.

Finally, since July 1, 2008 GrDF has been publishing updates on service quality indicators on its dedicated customer site. This document includes 29 indicators, five of which are subject to a financial incentive

**6.1.3.1.4.7 Infrastructure legislative and regulatory environment in France**

Production, transport and distribution (these businesses include the supply of natural gas) were nationalized by French Law No. 46-628 of April 8, 1946, which granted Gaz de France a virtual monopoly over these activities. This situation evolved over time, particularly following the adoption of several community laws aimed at creating an internal market in the European Union.

The gradual opening up of domestic gas markets, which started in 1990, was implemented through two directives in particular: directive 98/30 of June 22, 1998 and directive 2003/55 of June 26, 2003, which repealed directive 98/30 and concluded the total opening up competition of gas markets, effective in France since July 1, 2007. The directives were transposed into French law, mainly through laws no. 2003-8 of January 3, 2003, no. 2004-803 of August 9, 2004, no. 2005-781 of July 13, 2005 and no. 2006-1537 of December 7, 2006.

The successive directives and their transposition laws aim to guarantee transparent and non-discriminatory access to infrastructure (gas transport and distribution networks, LNG installations and gas storage points), and also, if the company is integrated (that is, if it carries out several businesses in the field of natural gas, such as supply and transport), to establish separate accounting procedures for its different gas businesses. It is also required to establish a legal separation between the businesses of the transport and distribution networks and the production and supply businesses, under the control of the CRE.

In addition, the gas sector is also regulated by the Competition Authority, as an economic business, which ensures that French competition law is applied to all economic businesses.

**Third-party access to infrastructure in France**

In order to allow any customer established in a member State to contract with the supplier of its choice located in the same State or another member State, a legal right of third-party access to the transport and distribution networks and to the storage facilities and LNG terminals was instituted by law.

This right is intended to ensure the supply of natural gas to eligible customers and to allow the execution of natural gas transit contracts between the major high-pressure gas transport networks of the European Economic Area.

The managing operators of the transport and distribution network and LNG and storage facilities must not discriminate in any way among the users or the categories of users of the structures or facilities they operate.

The refusal by an operator to sign a contract for access to its transport or distribution system or to LNG facilities must be based on reasonable grounds and reported to the applicant as well as to the CRE..

All operators operating natural gas transportation, distribution, storage structures or LNG facilities and all suppliers using them are required to supply the other operators with the information necessary to ensure the proper functioning of the interconnected network and the storage facilities.

In addition, natural gas transmission and distribution network operators, and operators of LNG facilities and holders of natural

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## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

gas storage permits must draw up and make public instructions specifying the technical design and operational requirements needed to connect to their facilities.

#### **Non-discrimination, confidentiality of information and separate accounting**

According to the provisions of the law of August 9, 2004, network operation activities are now subject to a “Code of Conduct”, updated and submitted to the CRE every year, to prevent the risks of discriminatory practices with respect to third-party access to the transport and distribution networks. Every year since 2005 the CRE has published a report on compliance with the Code of Conduct and the independence of the transport and distribution network managers.

Each operator operating natural gas transport, distribution or storage facilities or LNG facilities must keep confidential all information whose disclosure could adversely affect fair competition. The operators concerned must inform the CRE of all measures taken for this purpose. Violation of these obligations is punished by criminal fines.

In accordance with the law of January 3, 2003, any company carrying out one or more of the activities concerned in the natural gas sector must keep separate internal accounts for its natural gas transport and distribution activities and LNG facility operations, as well as all other activities not involving natural gas. The law of December 7, 2006, has since July 1, 2007 made obligatory the keeping of one set of accounts for the businesses involving the supply of gas to customers who have exercised their eligibility, and another set of accounts for those who have not. The operators must obtain approval from the CRE of the allocation rules, reporting environments and accounting separation rules. These accounts are not published.

#### **Separate management, then separation of the operators of the transport and distribution networks**

Pursuant to the provisions of Directive 2003/55, if the operator of a natural gas transmission or distribution network is part of a vertically integrated company such as GDF SUEZ, it must be made legally independent of the organization and decision-making processes of the entities managing other businesses, particularly production and supply businesses. The directive also sets forth various obligations to which the directors of the transport and distribution network operator are bound, so as to guarantee their independence. However, the directives recognize a right of economic supervision and management for the integrated company. These provisions were transposed in France by the laws of August 9, 2004 and December 7, 2006, which require the separation of the transport and distribution businesses for natural gas, which were until then carried out within Gaz de France. This separation was accomplished and took effect on January 1, 2005 for the transport businesses and on December 31, 2007 for the distribution business.

#### **Regulation and supervision of the natural gas sector**

In order to settle disputes likely to arise among the operators in a deregulated market, Directive 2003/55 requires each Member State

to designate one or more independent authorities to ensure non-discrimination, effective competition and efficient functioning of the natural gas market (in addition to the general role of the European Commission in relation to European competition law). To this end, they ensure that the rules relative to managing and allocating inter-connection capacities are obeyed, and supervise the procedures for remedying network congestion and the time required for the operators to connect and repair the networks.

In France, several authorities are responsible for regulation. The Energy Regulatory Commission has been the independent regulatory authority in the gas sector since 2003. The minister with responsibility for energy also has certain prerogatives in terms of control and penalties and local authorities, in their capacity as concession granting authorities, can also monitor proper compliance with the obligations in the distribution agreement’s terms and conditions.

#### **The Energy Regulatory Commission (CRE)**

The CRE is an independent administrative authority created in 2000 to regulate the electricity sector in France whose jurisdiction was extended to the gas sector by the law of January 3, 2003. The status of the CRE, like that of any independent administrative authority, ensures its autonomy and its impartiality and provides the means necessary for it to operate. The CRE is not a legal entity.

The law of December 7, 2006 modified its structure – by strengthening parliamentary control – and its organization, giving it a dual structure. Alongside this group, a dispute settlement and sanctions committee was created, which exercises the authorities of the CRE in the area of sanctions and settlement of disputes concerning access to and use of the public natural gas networks, LNG facilities and storage sites.

The CRE has significant powers which mainly aim to assure regulation the network by controlling access and regulating the natural gas market.

#### **Rate regulation powers**

The CRE proposes rates to the French Ministers of Economic Affairs and Energy for using the transport and distribution networks and the LNG facilities. Since the law of July 13, 2005, the ministers’ approval is deemed granted unless one of the ministers opposes this approval within two months following receipt of the CRE’s proposals.

The CRE also provides its opinion concerning regulated rates for the sale of natural gas. Finally, it gives its opinion on exemptions, granted by joint decree of the Energy and Economy Ministers, from the usage rates for the transport and distribution networks and LNG facilities and from the general commercial conditions for using the infrastructure (see section 6.1.3.1.4.2 – “Rates for access to storage points”; section 6.1.3.1.4.3 – “Rates for access to LNG terminals”; section 6.1.3.1.4.4 – “Transport rates for the gas distribution network”; section 6.1.3.1.4.5 – “Transport rates in the GRTGas transport network”). It also gives its opinion to the minister concerning the exceptions it may grant for access to new infrastructures.

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**Powers relating to the right of access to the network and investment**

The CRE protects the right of access to natural gas networks. It is thus consulted in advance concerning draft regulations relative to accessing the natural gas transport and distribution infrastructure and the LNG facilities. Network operators and operators of LNG facilities must provide the CRE with the general terms and conditions for using their infrastructure and their facilities. In the event of a refusal of access to a natural gas transport or distribution network or an LNG facility based on a lack of capacity or a difficulty in connecting the facilities of the applicant to the network, the CRE may request and, if necessary, require the operator to proceed with the necessary improvements if they are economically justified or if a potential customer indicates that it will agree to pay for them.

Finally, since the law of December 7, 2006, the CRE approves the investment programs of transporters by ensuring that the necessary investments are made to properly develop the networks.

**Disputes connected with access to the network**

The CRE's dispute settlement and sanctions committee may be asked to settle disputes connected with access to the network between the operators and the users of gas transport and distribution facilities, or between the operators and users of LNG facilities, or any dispute connected with storage.

In addition, the CRE has considerable powers to conduct investigations and inquiries in order to fulfill the responsibilities assigned to it and its decisions may be accompanied by fines for non-compliance.

The law does, however, provide for appeals against CRE decisions.

**Powers relating to non-discrimination and accounting separation**

Pursuant to the law of August 9, 2004, the CRE may give a justified opinion prior to the dismissal of any senior manager of a transport and distribution network operator. Each year it also prepares a report concerning compliance by the network operators with their code of conduct, it evaluates their management independence and proposes if necessary additional measures.

Based on the opinion of the French Competition Council, the CRE approves the separate accounting principles proposed by integrated companies in order to ensure that there is no discrimination and that there are no cross-subsidies or restrictions to competition. The separate accounts created according to these principles are sent annually. It holds regulatory power in this area.

The CRE also has the right to access the books and the economic, financial and employment-related information of companies active in the gas sector insofar as its missions are concerned. The CRE thus has the power to review the costs and expenses taken into account by the operators to calculate the regulated rate.

**Powers to monitor transactions**

The CRE has been given the power to monitor transactions carried out in the organized natural gas markets, as well as cross-border exchanges. Moreover, the CRE is responsible for monitoring transactions between suppliers, dealers and producers. It makes sure that their offers are consistent with their economic and technical constraints.

**Powers to impose sanctions**

The CRE may temporarily prohibit access to the transport and distribution networks and to the LNG and storage facilities, or impose a monetary sanction if an operator of natural gas transport or distribution network, an operator of LNG or storage facilities or users of these networks and facilities do not comply with the decisions falling within its jurisdiction.

**Regulatory power**

The law of December 7, 2006 extended the CRE's powers by giving it regulatory powers for natural gas. It can now specify the rules concerning the missions of operators of transport and distribution networks as well as LNG and storage facilities. It can also specify the rules concerning the conditions for connecting the transport and distribution networks and for using these networks and LNG facilities. This same regulatory power extends to signing gas purchase contracts by network operators for their own consumption to the areas of accounting separation and the rules of allocation.

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### 6.1 MAIN ACTIVITIES

#### The Minister of Economic Affairs and the Minister of Energy

The Minister of Energy determines and publishes a tentative multi-annual plan describing, on the one hand, the foreseeable changes in national demand for the supply of natural gas and its geographic distribution and, on the other hand, the investments scheduled to complete the infrastructures of the natural gas supply network. This plan presents the foreseeable changes over a ten-year period in the contribution of long-term contracts to the supply of the French market.

The Minister of Economic Affairs and the Minister of Energy have decision-making power concerning infrastructure usage rates, with the exception of gas storage, and sales.

The Ministers of Economic Affairs and Energy have the power to conduct investigations, and to collect any information on the activity of the gas companies needed for the enforcement of the law of January 3, 2003 and the law of July 13, 2005. Investigations are conducted by officials and agents authorized for this purpose. The Minister of Energy and the CRE may, if applicable, appoint an expert.

The minister responsible for energy can impose a financial penalty or withdraw or suspend, for a period not to exceed one year, the permit to supply or transport natural gas, or the license to store it underground, of parties that breach the provisions of the law of January 3, 2003 or in the event of a breach of the concession's terms and conditions.

#### Other regulations affecting activity in France: management of public service

The law imposes public service obligations on operators of natural gas transport and distribution networks, on operators of LNG facilities, on suppliers and distributors of natural gas and on holders of natural gas underground storage permits.

These obligations are related to the safety of persons and of the facilities, the continuity of gas supply, the security of supply, the quality and the price of the products and services supplied,

environmental protection, energy efficiency, the balanced development of the territory, the emergency supply of gas to non-domestic customers performing missions of general interest and the continued supply to vulnerable people. This is also true for the supply of gas at the special solidarity rate. They vary depending on the different categories of operators in accordance with the conditions set by decree No. 2004-251 of March 19, 2004. The public service obligations are specified by the natural gas supply or transport permits, the natural gas underground storage permits or the specifications of the concession agreements and distribution management rules.

#### 6.1.3.1.5 GDF SUEZ Energy Services Business Line

A European leader in energy services, GDF SUEZ Energy Services offers environmental and energy-efficient services to its industrial and service segment, local governments, public administrations, and infrastructure customers. These services are:

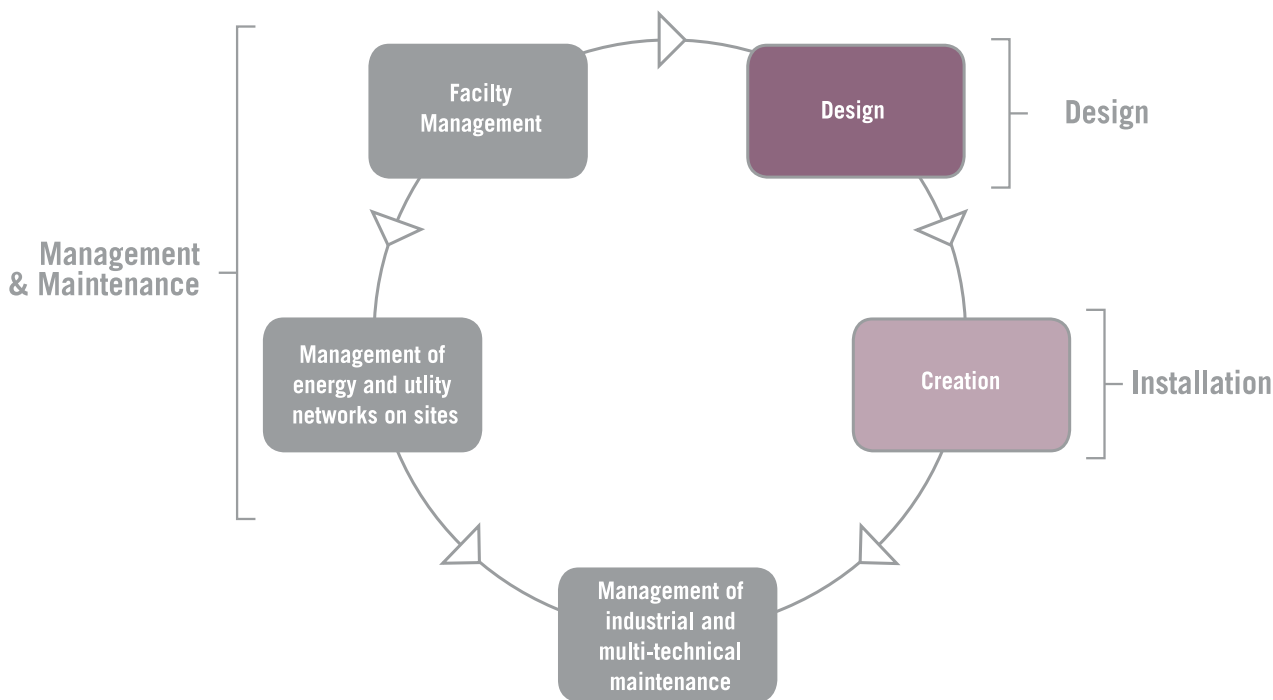
- multi-technical (electrical, thermal & climate-related, mechanical, systems integration);
- multi-service (engineering, installation, maintenance, operation, facilities management);
- multi-energy (gas, electricity, coal, renewable energies including biomass, photovoltaic);
- multi-country.

These services cover the whole technical services value chain from design, production and maintenance of equipment to the management of energies and utilities and multi-technical management over the long-term. GDF SUEZ Energy Services makes its multiple skills available to its clients and accompanies them throughout the life cycle of their installations and sites. The services provided by GDF SUEZ Energy Services enable its customers to get the most out of their assets, better manage their costs, and focus on their core businesses.

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**Comprehensive solutions throughout the life cycle of customers' facilities and sites**



Energy and environmental efficiency are at the heart of the businesses and operations of GDF SUEZ Energy Services. Although energy-intensive industrial sectors such as steel, cement, and petrochemical were among the first to start looking for ways of controlling energy costs that were both efficient and profitable, this concern now extends to all sectors: infrastructure, local governments, the residential sector, the service sector, and industry in general.

In addition to these economic concerns, there are also environmental targets and regulatory constraints, such as the gradual introduction of white or energy-saving certificates throughout the EU (already introduced in Italy, the United Kingdom, and France) and domestic or European commitments, which are particularly ambitious with regard to the energy savings that are to be made by 2020. In this context, it is vital to choose a partner such as GDF SUEZ Energy Services that has the capacity to take charge of the entire issue and propose an offer tailored to the specific needs of each client.

The GDF SUEZ Energy Services offer may include techniques such as cogeneration that have a high energy return, and it may also include the use of renewable energies such as biomass, geothermal or solar energy.

In addition, GDF SUEZ Energy Services companies are ideally placed, in terms of technical expertise, project management, contract relations, and geographic networking to meet the major challenges faced by a number of industrial and service sector customers:

- refocusing on the core business and the desire to outsource with a search for complete and integrated multi-technical solutions in both the private and the public sector;

- implementation of energy-efficient solutions, which are especially relevant in a context of volatile energy prices and increasing environmental constraints;
- modernization of healthcare institutions, requiring services in the areas of facilities and multi-technical operations over the long-term;
- paying increasing attention to mobility and safety with, as a consequence, major requirements for the upgrading of rail, road, and urban transport infrastructures;
- new forms of contracts that allow indexing based on the performance or sharing of savings made.

GDF SUEZ Energy Services is a fully-fledged Business Line within GDF SUEZ, alongside the Energy France, Energy Europe and International, Infrastructure, Global Gas & LNG and Environment Business Lines.

GDF SUEZ Energy Services relies on a clear, transparent organizational structure that incorporates complementary businesses, in accordance with the rules that apply to each of them: engineering, facilities and associated services, services to energy, and technical management. The entities that comprise GDF SUEZ Energy Services are organized by country in a structure that consists of eight BUs (Business Units).

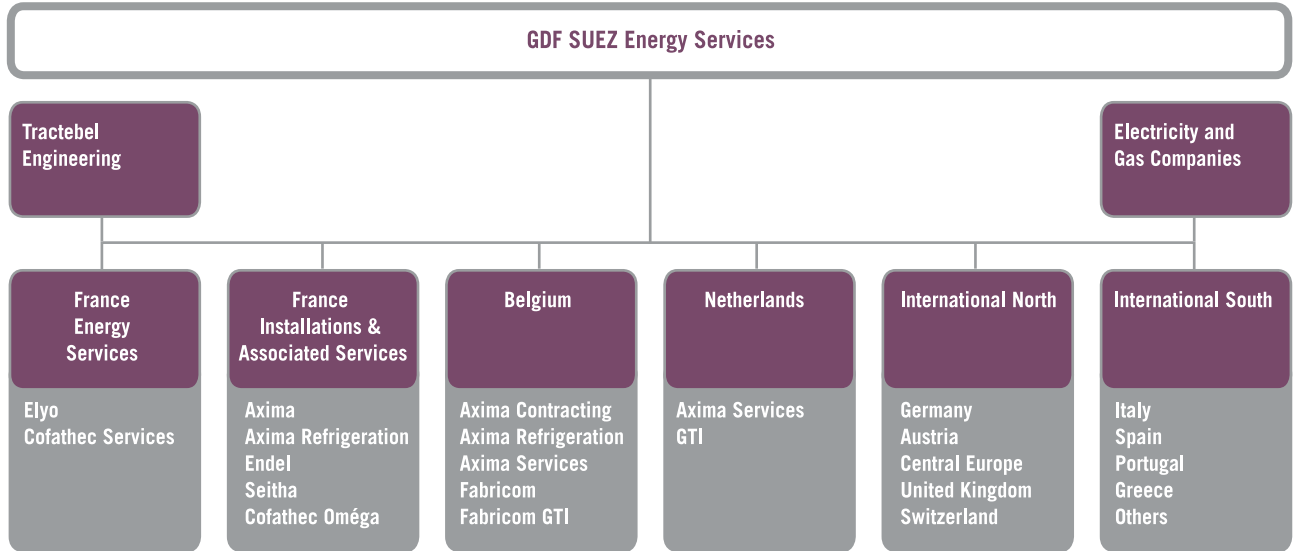
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# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

#### GDF SUEZ Energy Services: business organization by country



The organizational structure chosen is, for the most part, geographical and given the proximity of the Business Line's businesses. Each BU is placed under the authority of a single manager who answers for its results directly to the Business Line's General Management. The Business Line's management is deliberately decentralized to ensure that decisions are made as close to the ground as possible. Commercial and technical cooperation between the GDF SUEZ Energy Services entities and other GDF SUEZ entities is encouraged in order to achieve optimal efficiency in terms of sales and costs.

The offer of GDF SUEZ Energy Services covers the whole value chain for technical services:

- engineering-design;
- development of electrical, mechanical, and environmental engineering facilities; systems integration; large projects;

- multi-technical management and industrial maintenance;
- management of energy systems and utilities on site;
- facility management.

In addition, the Electricity and Gas Companies specialize in the production and distribution of electricity in Monaco and in the Pacific (New Caledonia, French Polynesia, Vanuatu, Wallis and Futuna Islands).

The businesses of the Business Line represented approximately €14 billion of revenues for 2008.

It has 77,000 employees in almost 30 countries, most of whom are in Europe, where the Business Line's activities are conducted on about 1,300 sites.

#### ● NET SALES AND EBITDA OF THE BUSINESS LINE

<i>Unedited proforma figures, in millions of euros</i>	2008	2007	Gross variation in %
Net sales	13,993	12,893	8.5%
EBITDA	904	946	(4.4%)

#### 6.1.3.1.5.1. Business strategy and growth

With revenues of over €14 billion, GDF SUEZ Energy Services is currently the top participant in the European services market. It carries out its activities using well-known commercial brand names: Axima, Axima Services, Cofathec, Cofathec Omega, Elyo, Endel, Fabricom GTI, GTI, INEO, Seitha and Tractebel Engineering.

In July 2008 the energy services businesses from SUEZ, which come under SUEZ Energy Services, were merged with those from Gaz de France, which headed subsidiaries such as Cofathec Services, Finergaz and Cofathec Omega in France, and the subsidiaries of Cofathec in the United Kingdom, Italy and Belgium.

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This merger enabled the creation of the GDF SUEZ Energy Services Business Line, which specializes in energy efficiency. This Business Line is currently number one in France, Belgium, the Netherlands and Italy. It occupies a strong position in neighboring countries such as the United Kingdom, Germany, Spain, Switzerland and Austria, and has bases for development in other countries, such as Portugal and Greece, as well as in central Europe.

In this context, the strategic priorities of GDF SUEZ Energy Services are as follows:

- to continue to improve the profitability of GDF SUEZ Energy Services by streamlining the current businesses portfolio, mobilizing internal synergies, and developing cross-functional offerings;
- to strengthen its position as European leader in multi-technical services by emphasizing sales dynamics and the development of innovative offers: energy and environmental efficiency, public-private partnerships, new services; etc.
- to strengthen the Services component in the management and maintenance businesses and concentrate on the high-value-added segments of facilities businesses, which require a systems integration capacity or expertise in facilities engineering;
- to strengthen profitable growth drivers: targeted acquisitions, development in new geographical areas or new businesses.

**Highlights**

**January 2008**

Barre Thomas, which makes polymers for the automotive industry, entrusted Elyo with multi-technical operations and general services at its Rennes plant for 10 years, for €60 million.

In Belgium, Siemens turned to three subsidiaries of the Energy Services Business Line, Fabricom GTI, Tractebel India and GTI, to implement in just one year and for a total of €20 million, the network systems engineering, production and assembly at the Delta N.V. and EDF power station in Vlissingen.

**February 2008**

Elyo won the concession contract for 24 years and €115 million for the Bourges heating network, which includes the creation of a wood boiler plant, a platform for the storage and preparation of wood, the total refurbishment of the 7 km network and the replacement of the 70 sub-stations. In addition, 500 square meters of photovoltaic panels will be installed on the boiler plant and 20 cubic meters of rain water will be collected for the network every year.

GDF SUEZ Energy Services S.A. acquired Spectrum, one of the main companies specializing in electrical installations and services to industry and the commercial services sector in the Czech Republic. The company registered revenues of €40 million in 2008.

**March 2008**

The consortium made up of ING Real Estate and Ymere awarded GTI the energy management contract for Overhoeks, the new district of Amsterdam. GTI will be responsible for the design, construction,

maintenance and operation for 15 years of the energy supply facilities, which will use hot and cold ground storage equipment.

Axima Services is responsible for a new 12 year facility management and operation contract for a total of almost €20 million, for the Tihange nuclear power plant in Belgium.

In Spain, Axima and Crespo y Blasco were chosen for the implementation of the electrical and environmental installations at the new Burgos hospital. The total amount of the contract is €32 million, €14 million of which is for the two subsidiaries of the GDF SUEZ Energy Services Business Line.

**April 2008**

ASL de Nuoro entrusted Cofathec, for 27 years and a total of approximately €600 million, with the development and management of all of the energy services in three hospitals and two health authorities of the Nuoro hospital complex in Sardinia.

The town of St-Etienne chose Elyo, in partnership with Coriance, for the implementation and operation of the new heating and cooling network of the Chateauxreux business district. At least 70% of the heat will be produced from biomass. This 25 year contract amounts to €85 million.

Ineo and Seitha won two new contracts with Colony Capital for an overall amount of €22.5 million for the implementation of the electrical and air conditioning facilities of its DC02 and DC04 data centers on the Marcoussis Data 4 site. Since December 2006, the two subsidiaries of the France Facilities & Associated Services BU have signed contracts worth a total of €42.3 million.

**May 2008**

In the Netherlands, Fabricom GTI won a €250 million contract with Mitsubishi Heavy Industries, within the framework of a consortium formed with IREM and Ponticelli, for the complete management of the installation of the multi-technical facilities and the electrical, mechanical, piping and instruments engineering works of Nuon Magnum's future "multi-fuel", 1,300 MW power station in Eemshaven. GTI, another subsidiary of the GDF SUEZ Energy Services Business Line, will also participate in the project and will help with the commissioning and start-up of the new power station.

In Hungary, Dunamenti Erömü Zrt signed a service contract with Tractebel Engineering in the order of €16 million within the framework of the 420 MW repowering of unit 3 of the Dunamenti power station.

**June 2008**

As part of the second invitation for bids from the French Energy Regulator, for the production of bioelectricity in France, Elyo and Cofathec Services were awarded three projects: Biolaq, with the Total group, for a factory producing bioethanol from corn, with a boiler fired by wood and corn straw; Saipol Grand Couronnes for a boiler fired by wood chips; and Cegaz for a unit producing methane from biomass waste. The projects are worth a total of close to €900 million.

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## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

#### July 2008

The Olympic Delivery Authority (ODA) awarded Elyo a 40 year contract worth almost €1,500 million for the construction, finance and operation of the heating and cooling network, and of the energy production plants on the “London 2012” Olympic Park and the new development zone in the town of Stratford. The heating, cooling and power production plant will supply 75% of electricity needs while enabling a reduction in carbon emissions of at least 20%.

Axima signed the contract to manage the installation works at the Friedrich Loeffler Federal Institute of Animal Health Research, located on the island of Riems in Germany, worth almost €47 million. Axima will be responsible for the production of the utilities, heating, air conditioning, refrigeration, the building’s automated system, the supply of utilities to the laboratories and sanitary equipment.

In Italy, Cofathec won a five-year contract worth almost €47 million with the Rome city authority for the management of nearly 940 thermal facilities providing energy to nursery and elementary schools, nursing and retirement homes, offices and libraries. Cofathec will also see to it that 52 thermal plants comply with standards, and will be responsible for the installation of 12 photovoltaic plants, 21 solar thermal plants and the building of a cogeneration plant.

Elyo renewed, for 15 years and €150 million, its contract to manage the heating network in Vélizy-Villacoublay which serves 8,000 homes and an industrial zone.

#### September 2008

Axima won the contract with Aéroports de Paris (ADP) worth almost €20 million for the maintenance works on the air conditioning and treatment installations of the entire S4 terminal at Roissy-Charles-de-Gaulle Airport.

As a group, Ineo won, the contract for the electrical facilities at the future medical-technical wing of the Timone hospital, the largest hospital project in Marseille, for €18.3 million. Work will start in April 2009 and last 35 months.

#### October 2008

Caliqua AG, a subsidiary of GDF SUEZ in Switzerland, specializing in bio-energy, received the letter of intent in relation to the supply of the steam cycle of the new energy recovery plant in Winterthur for €28 million. With the new power station, electricity production will be increased by some 65 GWh per year and the carbon footprint of the town of Winterthur will be significantly reduced.

Ineo was chosen by Nexity, project owner, to secure the electricity supply at Société Générale’s future trading room building in Paris-La Défense. The services, worth €25.5 million, involve researching, designing and installing power currents as well as providing and setting up generators.

#### November 2008

Axima won the contract with HRS for the installation of all HVAC (heat, ventilation, air conditioning) equipment in Crédit Suisse’s new Uetlihof building, a strategic site for the banking group which will eventually be used by over 6,500 employees. This €18 million contract is part of the overall facility management contract which Axima has for all major sites in Switzerland.

#### December 2008

Cofathec won, in a group with other companies, the contract to manage the energy services of the University of Catania in Sicily. Worth a total of close to €48 million, this contract covers the supply of electrical energy and the management of the maintenance of the energy installations of over 78 buildings for 20 years.

Leme was chosen by Consortium Energia Sustentavel do Brasil for a contract to provide services to the contracting body within the framework of the construction of the Jirau hydroelectric power station in Brazil. The 3,300 MW plant is expected to be put into service in 2013. It is currently the largest investment in the energy sector in Brazil, amounting to €40.8 million.

GRTgaz gave Endel, within the framework of a €12.6 million contract, responsibility for the modernization of the Saint-Clair-sur-Epte site in the Paris region. Endel will work on the piping and associated civil engineering. This contract is in addition to that won by Inéo, which for €35 million, took responsibility for the integration of electrical automation of the two new natural gas compression stations in Saint-Avit and Fontenay-Mauvoisin.

In order to meet the growth in demand on the island of Tahiti, Electricité de Tahiti, the concession operator in French Polynesia, has increased its installed power by 20%, to over 200 MW. The Punaruu power station has thus been equipped with two new 17 MW generators, within the framework of an extension representing an investment of €45 million. These works should meet the island of Tahiti’s needs for guaranteed thermal power until about 2015.

#### March 2009

GDF SUEZ creates a strong and unitary brand image within its energy related businesses providing services, COFELY, to reinforce its leadership in Europe, increase its visibility and favor its growth in markets where energy and environment efficiency is expanding. For France and the United Kingdom, the new COFELY brand is as from now replacing Cofathec and Elyo, these companies merging in each country. The new brand will progressively be deployed in the other European countries (notably Spain, Italy and the Netherlands).

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**6.1.3.1.5.2. Description of businesses and their regulatory environment**

**Regulatory environment**

The primary regulatory changes that have an impact on GDF SUEZ Energy Services businesses include, at the European, national and regional levels:

- broader and more restrictive environmental standards regarding, in particular, the greenhouse gases reduction target;
- the introduction of constraints aimed at improving energy efficiency and the related development of energy performance contracts;
- the deregulation of energy markets;
- the development of public-private partnerships.

This regulatory trend, combined with rising energy prices over the medium-term, provides GDF SUEZ Energy Services with opportunities for growth. In fact, they cause clients to seek the services of specialists in heating, electricity, and the environment who are capable of designing, developing and managing their facilities under optimal technical and financial conditions. Through the unique complementarity of its activities and expertise, GDF SUEZ Energy Services is ideally placed to meet these growing needs.

**Description of businesses**

**Engineering – design**

Tractebel Engineering is one of the leading engineering firms in Europe. It offers solutions in engineering and consulting to public and private clients in the electricity, nuclear, gas, industry, and infrastructures sectors. Tractebel Engineering offers a range of innovative and sustainable solutions throughout the life cycle of its clients' facilities such as feasibility studies, investment projects, assistance with project management, operations and maintenance, and dismantling.

**Facilities and related services – building and maintenance**

GDF SUEZ Energy Services, through subsidiaries such as Axima, Cofathec Omega, Endel, INEO, Fabricom GTI, GTI and Seitha builds and maintains electrical, mechanical, and HVAC facilities for industry, the services sector, buildings, and major infrastructure projects. The Business Line also provides services associated with these businesses:

- locally, the business culture is reflected in on-site customer service that meets their needs and is backed by a powerful European network and the complementary nature of the services offered;
- in specialty businesses, development is backed by a high degree of proficiency in basic technologies, so that cutting edge developments can be offered and relevant assistance provided to clients as their technology expands.

Project management remains a decisive factor in facilities and related services businesses: the strict control of offerings such as costs and contractual aspects during performance will determine the final profitability of each project.

**Energy services – Optimizing and Operating**

As experts in energy services solutions derived from the concept of delegated management and outsourcing, Elyo, Cofathec and Axima Services offer comprehensive and innovative solutions to highly diversified clients (companies, local governments, managers of residential, service sector or industrial sites). Elyo, Cofathec and Axima Services design and operate long-term, effective, and comprehensive solutions with guaranteed results while remaining environmentally friendly:

- management of energy and the utilities required in industrial processes;
- management and maintenance of thermal and technical equipment;
- facility management;
- management of municipal heating and cooling networks.

With a wealth of expertise as integrators and strong local relationships, Elyo, Cofathec and Axima Services aim to confirm their positions as European leaders by taking advantage of the opportunities afforded by cost optimization, energy efficiency, the shift in the focus of companies back to their core businesses, the opening up of energy markets, and the recognition of environmental restrictions. Axima Services has also expanded its services to include the management of airport equipment such as baggage sorting systems, jetways, and ground-based guidance systems.

**Electricity and Gas Companies**

Electricity and Gas Companies specialize in the production and distribution of electricity in Monaco and the Pacific (New Caledonia, French Polynesia, Vanuatu, Wallis and Futuna). They are partners in the development of these territories because they provide international quality services with the support of a major Group.

**6.1.3.1.5.3. Principal Markets**

The geographic area covered by GDF SUEZ Energy Services is, for the most part, in Europe. This Business Line is ranked number one in France, Belgium, the Netherlands and Italy, has a strong position in neighboring countries, and has bases for expansion into areas further afield, such as central Europe.

The Business Line is present in three main markets:

- the services sector, which accounts for 48% of its activity. The Energy Services Business Line serves customers in the services sector mainly in collective housing, public buildings, shopping centers, office buildings and hospitals;
- industry, which accounts for 32% of its activity. The large industries which are clients of the Business Line are the petroleum, paper, chemicals, petrochemicals, power and steels sectors;
- the infrastructure sector, which accounts for 20% of its activity. The Business Line carries out installation and maintenance work for the electricity and gas networks, ports and airports, and public lighting networks.

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# 6

## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

Although the industry market is experiencing stagnation in its investments, this segment offers growth opportunities for targeted service businesses, which benefit from the outsourcing trend, the strengthening of environmental constraints, and the search for efficient energy.

The development of public/private partnerships, especially in the services sector, is a favorable factor for the growth in facilities and services activities.

Finally, the infrastructure market remains attractive due to numerous initiatives taken by local authorities to improve mobility and security. GDF SUEZ Energy Services is also recognized as a major player

in this market through niche businesses in transportation and intelligent security technologies.

With a good balance of activities (41% in production facilities and related services, 56% in services and 3% in engineering), the Business Line holds a unique portfolio of complementary businesses in the European market that sets it apart from its competitors.

The complementarity with the Group's different Business Lines is also an advantage for GDF SUEZ Energy Services if, for example, it is called upon to provide services combined with the supply of electricity and gas to a deregulated market, or related to water and waste management.

#### 6.1.3.2 SUEZ Environnement Company

The GDF SUEZ Environnement Business Line consists of the 35.5% stake held in SUEZ Environnement Company, listed on Euronext Paris and Euronext Bruxelles.

#### Main key figures of consolidated income statement

Millions of euros	2008	2007	2006
Revenues	12,363.7	12,034.1	11,446.6
Gross operating income <sup>(a)</sup>	2,101.9	2,061.4	1,937.5
Current operating income	1,059.1	1,061.4	1,060.4
Net income group share	533.2	491.7	573.8

(Data extracted from SUEZ Environnement Company's 2008 Reference Document.)

(a) SUEZ Environnement Company uses the financial indicator "gross operating income" (or EBITDA) to measure its operational performance and its capacity to generate operating cash flow. The gross operating income is not defined by the IFRS standards and does not appear in the main body of the Group consolidated income statement. The switch from the current operating income to gross operating income is described in Section 9.2.1 of the SUEZ Environnement Company Reference Document.

#### Main key figures of the consolidated balance sheet

Millions of euros	Dec. 31, 2008	Dec. 31, 2007	Dec. 31, 2006
Non-current assets	13,132.5	12,733.0	11,894.0
Current assets	6,578.5	6,004.7	6,220.9
<b>TOTAL ASSETS</b>	<b>19,711.0</b>	<b>18,737.7</b>	<b>18,114.9</b>
Group equity capital	3,532.4	3,643.9	3,547.0
Minority interests	637.6	613.0	1,120.1
Other liabilities	15,541.0	14,480.8	13,447.8
<b>TOTAL LIABILITIES</b>	<b>19,711.0</b>	<b>18,737.7</b>	<b>18,114.9</b>

(Data extracted from SUEZ Environnement Company's 2008 Reference Document.)

With revenues of €12.4 billion and 65,382 employees at December 31, 2008, the SUEZ Environnement Company is a benchmark in the environmental market worldwide (water and waste).

SUEZ Environnement Company is active in all water and waste cycles and is therefore an expert in those areas. It does business with both local governments and private entities.

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The businesses of the SUEZ Environnement Group in the area of water notably include:

- capture, treatment and distribution of drinking water;
- maintenance of networks and operation of plants;
- customer management;
- collection and treatment of municipal and industrial waste water;
- design, construction, sometimes the finance, and operation of drinking water production plants and waste water treatment plants, as well as for plants which desalinate and process water with a view to its re-use;
- research and master plans, modeling of underground water tables and hydraulic flows, and project management of infrastructure and water management projects;
- the biological and energy recovery of sludge from sewage plants.

The businesses of the Group in the area of waste notably include:

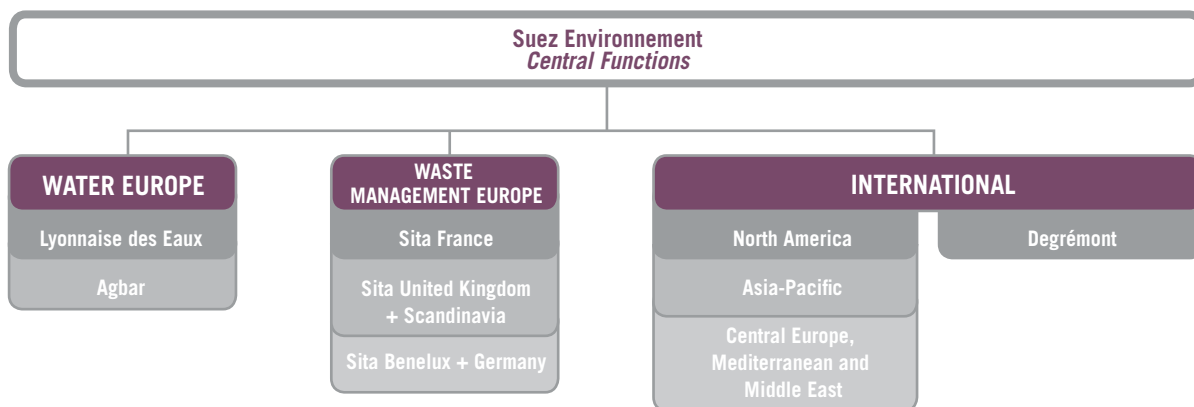
- the collection of waste (from households, local governments and industry; hazardous and non-hazardous, with the exception of radioactive waste) and urban waste management;
- the sorting and pre-treatment of this waste;
- recycling, recovery of organic materials and energy recovery from recycled matter, the elimination through incineration and landfill of the residual matter;
- the integrated management of industrial sites (sanitation, clean-up and reclamation of sites or polluted land);
- treatment and recovery of sludge.

SUEZ Environnement Company does business with public and private clients, under various contractual forms:

- in the area of water, the Group mainly signs public service contracts (leasing contracts or concessions), and delegated public contracts, but also service, operation and maintenance contracts as well as construction and engineering contracts;
- in the area of waste, the Group signs service or management contracts, (delegated and non-delegated, integrated and non-integrated), operation and maintenance contracts and contracts of the design, build and operate type.

In 2008, SUEZ Environnement Company showed a balanced breakdown of consolidated revenues between water and waste businesses. These activities supplied 76 million people with drinking water and provided waste water sanitation services to 44 million people<sup>(1)</sup>. During the same fiscal year, the Group provided collection services to nearly 51 million people worldwide and more than 500,000 industrial and commercial clients, collected nearly 23 million tons of household, ordinary industrial and medical waste, and processed nearly 40 million tons of waste.

SUEZ Environnement Company is structured around three main segments: Water Europe, Waste Management Europe, and International (Degrémont and businesses outside Western Europe), which in turn are divided into nine business units. Another segment, called Other, covers only central functions. The chart below shows the organization of the nine business units:



(1) The population served in water is calculated based on the "managed" perimeter (companies which are fully consolidated, proportionately consolidated and consolidated by the equity method).

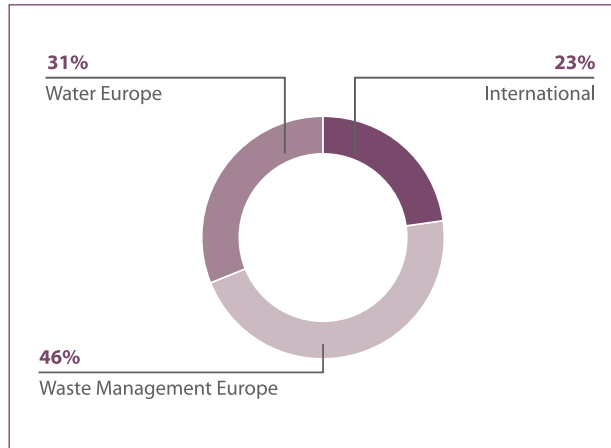
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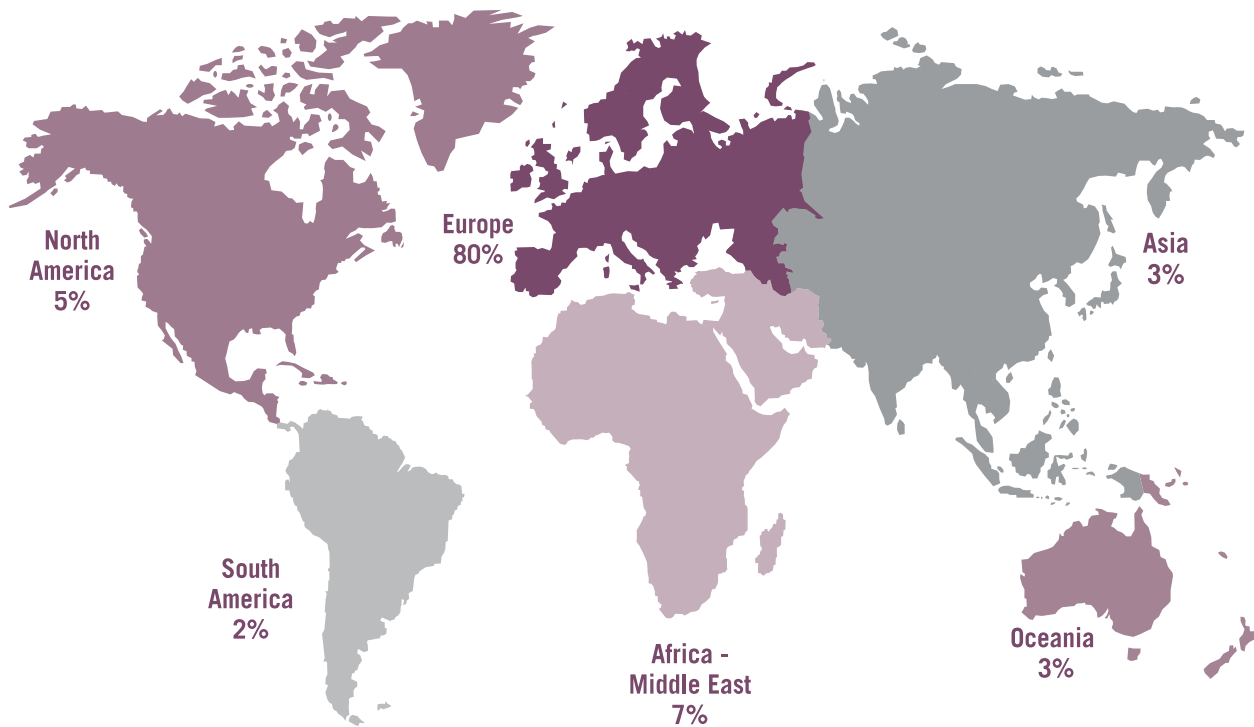
## OVERVIEW OF ACTIVITIES

### 6.1 MAIN ACTIVITIES

The chart below shows the SUEZ Environnement Company's consolidated revenue breakdown at December 31, 2008. The "Other" segment is not represented because it covers only central functions grouped within SUEZ Environnement Company and inter-segment elimination entries:



Europe is the SUEZ Environnement Group's historic home for growth, and remains its zone of preference. The SUEZ Environnement Company has the advantage of being rooted in Europe and especially in France and is able to enlist its expertise and skills and adapt them to other continents. The map below<sup>(1)</sup> shows the SUEZ Environnement Company's revenue breakdown by geographical area at December 31, 2008:



(1) This map represents the geographical breakdown of the Group's revenues, regardless of the accounting segmentation retained in the consolidated States of the SUEZ Environnement Group included in section 20.1 of the 2008 SUEZ Environnement Company's Reference Document.

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SUEZ Environnement Company has an extensive network of subsidiaries and agencies; at year-end 2008, the Group was engaged in business as an operator in more than 30 countries. As a result, major cities such as Hong Kong, Casablanca, Perth, Jakarta, and Algiers have turned to the Group to manage all or part of their water, sanitation, and waste management or for the construction of large infrastructure in those areas. Outside of Europe, SUEZ Environnement Company Group normally conducts business in partnership with local public or private entities (industrial

companies, finance companies, or associations) that have an in-depth knowledge of the local context, following the example of the historic partnership with La Caixa (Agbar in Spain), or with New World (Chinese-French Holdings in China).

SUEZ Environnement Company operates around the world under different brands with a high level of recognition, in particular SITA for waste, Lyonnaise des Eaux, United Water, Degrémont, Ondeo and Ondeo Industrial Solutions in the area of water..

The map below shows the locations of the main subsidiaries as well as the main brands under which the SUEZ Environnement Company operates throughout the world at December 31, 2008.

**Global presence**

DEGREMONT  
SAFEGE

**North America**

UNITED WATER  
BAL-ONDEO

**South America**

GRUPO AGBAR

**Europe**

LYONNAISE DES EAUX  
SITA  
EURAWASSER  
GRUPO AGBAR  
ONDEO INDUSTRIAL SOLUTIONS

**Africa - Middle East**

LYDEC  
GRUPO AGBAR

**Asia**

PALYJA  
SWIRE SITA WASTE SERVICES  
SINO FRENCH WATER

**Oceania**

SITA  
ENVIRONMENTAL SOLUTIONS  
AUSTRALIAN WATER SERVICES

- Water business
- Waste business
- Water and Waste business

Lastly, SUEZ Environnement Company has always placed research and development at the heart of its business, particularly through major partnerships, teaming up with both public agencies [e.g., Cemagref, the National Center for Scientific Research (CNRS), the University of Tongji in China, University of California Los Angeles (UCLA) in the United States] as well as private entities [R+i Alliance partnership involving Lyonnaise des Eaux, Agbar, United Water, Northumbrian Water, and SUEZ Environment, participation in the Global Water Research Coalition (GWRC)].

For more detailed information concerning SUEZ Environnement Company, see its reference document.

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# 6

## OVERVIEW OF ACTIVITIES

### 6.3 IMPORTANT EVENTS

## 6.2 MAIN MARKETS

See paragraphs 6.1 and 6.5.

## 6.3 IMPORTANT EVENTS

### 6.3.1 GAZ DE FRANCE AND SUEZ MERGER

The General Shareholders' Meetings of SUEZ and Gaz de France, which met on July 16, 2008, approved the plan for the two companies to merge, a process initiated in February 2006 and concluded on July 22, 2008.

The main stages of the process which concluded with the merger were:

#### 2006

- approval of the friendly merger plan between Gaz de France and SUEZ by the Management Boards of the two companies on February 25 and 26 respectively;
- joint notification of the European Commission of the merger plan on May 10;
- authorization by the European Commission of the plan on November 14 under certain conditions (see details below);
- decision 2006-543 DC by the Constitutional Council on November 30, stating that the privatization of Gaz de France was in accordance with the constitution but delaying it until the date of the total deregulation of the gas and electricity markets to competition (July 1, 2007);
- Law no. 2006-1537 of December 7, 2006 concerning the energy sector modifying article 24 of law no. 2004-803 of August 9, 2004 and demanding that the State hold more than one third of the capital of the company (instead of 70%).

#### 2007

- approval by the Board of Directors of the two companies on September 2 of the new merger strategies including the contribution of 65% of the activities of the SUEZ Environment area;

- advisory opinion of the SUEZ SA works committee on November 29;
- Decree no. 2007-1784 of December 19, 2007 authorizing the transfer of the company to the private sector (applying law no. 93-923 of July 19, 1993 which makes the privatization of a public company subject to such a decree).

#### 2008

- advisory opinion of the SUEZ European Consultative Committee of January 7;
- advisory opinion of the Gaz de France staff representative bodies (*Instances représentatives du Personnel*) on March 11 (European Works Council) and May 26 (Central Works Council);
- approval of merger agreement by the Boards of Directors of Gaz de France and SUEZ on June 4;
- reports on the contributions and the merger by independent valuers filed June 11, deciding parity of the exchange ratio;
- approval of the merger with SUEZ by the General Shareholders' Meeting of Gaz de France and of the merger with Gaz de France as well as the demerger of SUEZ Environnement by the General Shareholders' Meeting of SUEZ on July 16;
- Gaz de France privatization decree published July 17 after approval by the CPT (*Commission des Participations et des Transferts*) on July 2;
- creation of GDF SUEZ and spin-off of the SUEZ Environnement Division on July 22.

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Details of the European Commission’s main conditions for authorization:

	<b>Date of implementation</b>
Disposal of SUEZ stake in Distrigaz	Sale to Eni of 57.25% of Distrigaz in exchange for gas assets (E&P, LNG, distribution, long-term contracts) and electricity assets (VPP in Italy).
Disposal of the Gaz de France stake in Segebel (holding 51% of SPE)	Finalization in January 2009 of the sale to Centrica
Sale of the Gaz de France stake in SEGEO to Fluxys	Agreement signed June 27, 2008
Disposal of Cofathec Coriance and Cofathec Services heating networks	Sale to A2A in July 2008
Modification to shareholding (stake capped at 45%) and governance of Fluxys	Sale of 12.5% of Fluxys to Publigaz in September 2008
Separation of LNG terminals management businesses	Effective December 31, 2008 per the decision of the General shareholders’ meeting of December 17, 2008

### 6.3.2 ECONOMIC AND FINANCIAL CRISIS

The global economic and financial environment has been severely shaken by the current crisis which will probably lead to a restructuring of the banking system and of the financial markets (access to credit, rise in risk premiums etc.).

However, there has been little effect on the long-term fundamentals of the energy and environment industry (see Section 6.1.1.3 *The World and European Energy Sector*) although the effects of the economic crisis may be felt in the short-term, especially on industrial energy demand.

That is why GDF SUEZ, while confirming its medium-term industrial targets, decided to launch the Efficio plan, in order to accelerate and strengthen the performance plan announced at the time of the merger and to take very pro-active measures to strengthen its liquidity (through bond issues), actively manage its debt and reduce exposure to risks, especially counterparty risk.

### 6.3.3 SECURITY OF GAS SUPPLY

Between January 6 and January 21, 2009, there was a significant reduction in supplies of natural gas from Russia for all of Gazprom Export’s European customers. In order to deal with this reduction in its supplies, which occurred during a period of extreme cold, GDF SUEZ immediately mobilized all of its resources, especially those in its supply portfolio.

Thanks to its strong position, GDF SUEZ SA maintained its customers’ supplies and was also able to contribute to the supplies of some Central European countries where it does not have a direct presence.

Working in close collaboration with the European Commission, the Group contributed, alongside the other large European buyers of Russian gas, to the settlement of the dispute between Russia and Ukraine, enabling the resumption of deliveries on January 21, 2009.

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## OVERVIEW OF ACTIVITIES

### 6.5 COMPETITIVE POSITION, ENERGY

## 6.4 DEPENDENCE ON PATENTS, LICENSES OR CONTRACTS

See chapters 11 and 4 of this Reference Document.

## 6.5 COMPETITIVE ENERGY POSITION

The production and marketing of electricity and the marketing of gas are sectors of business that are largely open to competition in Europe and the United States. However, activities constituting natural monopolies – like the transport of electricity and, to some extent gas – are strictly regulated. Elsewhere in the world, with just a few exceptions, markets are less open to competition and international players operate in more regulated environments, usually under long-term contracts.

### GDF SUEZ is a European and global leader in electricity and gas

In natural gas, GDF SUEZ is the leading buyer and marketer in Europe, with a unique capacity to supply customers in 10 European countries. It is also the operator of Europe's number 1 transport and distribution network, Europe's number 2 storage operator, the second largest operator of LNG terminals and a significant E&P player in Europe (number 1 offshore producer in the Netherlands and number 5 producer in Germany).

In LNG, GDF SUEZ is the leading importer in the Atlantic basin and number three worldwide (source: GIIGNL). The group's main competitors in this area are oil and gas companies such as ExxonMobil, Shell, BP, Total and BG Group. Recently, major financial institutions like Goldman Sachs have also entered the market for the physical purchase and sale of LNG.

In electricity, the Group is the 5th largest producer and marketer in Europe and the world's leading independent power producer (IPP). It is also the top private producer of electricity in Brazil, Thailand and the Gulf states.

In the area of services, the Group operates primarily in Europe. This Business Line is ranked number one in France, Belgium, and the Netherlands, has a strong position in neighboring countries, and has an initial base for expansion into countries further afield, in areas such as Central Europe. With a good balance of activities, the Business Line holds a unique portfolio of complementary businesses in the European market that sets it apart from its competitors. Its competitors are generally smaller in size and include Vinci Energies, ACS, Cegelec, Spie for facilities-related activities and Dalkia and Johnson Controls for service-related activities.

### GDF SUEZ has strong domestic positions in France and Belgium

In France, GDF SUEZ is the leading gas marketer with more than 10.3 million retail customers and a market share of 85% in B to B and 88% in B to C. In electricity, with an installed capacity of more than 6 GW, i.e. 5% of the installed power in France, GDF SUEZ is the 2<sup>nd</sup>-ranked producer and marketer. The group is a leading player, benefiting from a diversified mix of energy, a large proportion of which is renewable. GDF SUEZ is the 2<sup>nd</sup> largest hydroelectric operator, with 15% of the installed capacity and over 25% of hydroelectric production in France, through CNR and SHEM. GDF SUEZ is the leader in the wind power sector in France with 384 MW installed at the end of 2008, representing about 10% of the estimated French market. The Group is also the leader in energy services.

In Belgium, GDF SUEZ is the main producer and marketer of electricity, premier marketer of gas, and the leader in energy services.

### The continuation of consolidation in Europe

In Europe, the main competitors of the GDF SUEZ Group on the energy markets are: in electricity, international groups such as EDF, ENEL, E.ON, RWE, and Iberdrola; in gas, the large gas companies, such as E.ON, ENI, Gas Terra, Gas Natural and Wingas. New competitors are emerging, such as the large gas producers like Gazprom or other players specialized in marketing activities, like the British company Centrica, which has bought the stake held by the GDF SUEZ Group in SPE and has thus strengthened its position on the Belgian market. The acquisition by ENI of the stake held by GDF SUEZ in Distrigaz has also increased competition on the gas market in Western Europe..

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## 6.6 SUSTAINABLE DEVELOPMENT

### 6.6.1 SUSTAINABLE DEVELOPMENT

In 1987, the Brundtland Commission defined sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. At the company level, this means voluntarily incorporating the social and environmental aspects of management activities and taking account of the needs and expectations of stakeholders.

Thus, the long-term development of the Group's business must be compatible with:

- economic performance;
- social equality;
- protection of the environment.

#### Sustainable development: a commitment which is at the heart of the Group's identity

Sustainable development is an integral component of GDF SUEZ's identity. The Group aims to redefine the relationship between people and energy, with a view to progress and sustainable development.

The activities of GDF SUEZ are at the heart of sustainable development issues (natural resources, development, climate change). These businesses supply solutions to help customers to reach their own sustainable development objectives. They are also active locally, and over the long-term.

Responsible growth is at the heart of the Group's businesses, which is why particular attention is paid to putting sustainable development at the very centre of the Group's strategy.

#### Sustainable development: a commitment at the heart of the Group's strategy

The Group has identified several challenges linked to its activities:

- fighting climate change and preserving natural resources;
- developing with respect to new markets;
- fully assuming the Group's environmental and social responsibility: preparing for risks and crises;
- developing the Group's intellectual and human capital.

To meet these challenges, sustainable development is a decisive criterion when deciding the strategic choices made by the Group. Sustainable development is thus incorporated into the strategic focuses of GDF SUEZ.

In fact, through a strategy based on sustainable development that the GDF SUEZ Group intends to balance its various ambitions: high

performance and respect for the environment, competitiveness and social contribution, profitability and provision of essential services.

GDF SUEZ's sustainable development policy represents a new way of doing business and a driver for growth.

The Group's sustainable development policy is focused on three main lines:

- innovating to develop and anticipate changes in markets;
- guaranteeing the future and local acceptance of the Group's activities;
- developing the attractiveness, efficiency and cohesion of GDF SUEZ.

The first main line of the sustainable development policy aims to innovate to develop and anticipate changes in markets covering the following priorities:

- satisfying the markets' expectations, and moving forward: this means building the customer relationship on an ability to listen, anticipating needs and gauging satisfaction in order to secure existing contracts, but also to develop new offers based, for example, on energy and environmental efficiency (energy control, result-oriented contracts, etc.); CO<sub>2</sub> (trading, capture and storage etc.); renewable energies; or offers adapted to particular segments of the population such as disadvantaged customers. Taking part in sustainable city projects, participating in the construction of the city of tomorrow and sustainable regional planning is also an important part of the Group's sustainable development policy;
- checking quality and guaranteeing continuity of service;
- promoting ethical behavior in the commercial relationship: amongst other things, this involves respecting national and international regulations, Group standards and the principles of competition, having a responsible purchasing policy and informing customers of commodity price developments (sales of gas, electricity and water).

The second main line of the sustainable development policy involves guaranteeing the future and acceptance of the Group's activities and covering the following priorities:

- guaranteeing structured dialogue and listening with each stakeholder: the main actions involve mapping the stakeholders at all levels of the Group, a mechanism for listening and dialogue with the stakeholders and finally taking into account the expectations of stakeholders in policies and actions;
- guaranteeing industrial security and safety of installations: this means making existing facilities safe and reducing their impact on the environment and people, and guaranteeing the safety of users and of third parties;

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## OVERVIEW OF ACTIVITIES

### 6.6 SUSTAINABLE DEVELOPMENT

- limiting the Group's exposure to climate change: key areas are limiting greenhouse gas emissions, (maintaining an overall balanced energy mix, with optimal CO<sub>2</sub> levels adapted to local needs; increasing the capacities of energies which do not emit CO<sub>2</sub> and the proportion of these in the energy mix), streamlining mechanisms to deal with carbon restrictions (using flexibility mechanisms, investing in carbon funds), investing in research and innovation (energy efficiency, renewable energies, capture and storage of CO<sub>2</sub>); anticipating regulations; and improving the energy efficiency of the Group's facilities;
- preserving natural resources and reducing the environmental impact of the Group's activities: among other measures, this involves encouraging rational use of resources in our activities; preserving biodiversity; developing environmental management systems and external certification in line with an analysis of risks and issues;
- fighting corruption: this mainly involves strictly respecting the relevant regulations in each country where the Group operates; training all Group employees, raising their awareness, and defining appropriate procedures; and participating in voluntary initiatives (Exterior Industries Transparency Initiative (EITI), United Nations Global Pact, etc.);
- behaving like a socially responsible company: this involves developing trusting partnerships with recognized groups such as NGOs and associations; playing our part in social mediation; participating in the social cohesion of regions, paying attention to the most vulnerable sections of the population, helping socially responsible bodies to become more professional, (especially in sensitive areas); participating in education and research in the area of sustainable development, and developing partnerships with the academic world.

The third main line of the sustainable development policy aims to develop the attractiveness, efficiency and cultural cohesion of GDF SUEZ and covers the following priorities:

- building the Group's culture around sustainable development: amongst other things this involves sharing sustainable development values and making them a way of bringing the Group together; putting sustainable development at the heart of the Group's strategy; setting sustainable development objectives throughout the Group; incorporating sustainable development into the Group's key processes; developing reporting as a management tool; encouraging employees to incorporate sustainable development into their daily behavior and supporting sustainable development policies with an internal communications plan;
- improving well-being in the work-place: this mainly involves guaranteeing the health and safety of staff (particularly in terms of reducing the number of accidents in the work-place and occupational illnesses); quality dialogue between employees and management and maintaining a high level of solidarity amongst staff;
- developing professionalism: this priority involves recruiting and keeping talent (high-potential employee policy, recruitment campaigns, partnerships with schools); and developing skills and employability (training plans, internal mobility).

### An action plan for solid and sustainable company development

An annual action plan in the Group's Business Lines and units is the expression of this sustainable development policy. This general framework is adapted to the specific challenges of each of the Group's businesses.

The Group regularly evaluates the execution of the action plan through the use of table which collects indicators specially chosen to monitor the plan. Environmental and social reporting, with certain indicators verified by auditors and whose level of assurance progresses towards the reasonable assurance level, also allow the GDF SUEZ sustainable development performances to be precisely measured.

### Mechanisms for implementing the sustainable development policy

To guarantee effectiveness, the Group's commitments to sustainable development are carried out at the highest level. The Chairman of the Group is personally committed to these issues and regularly talks about them; they are examined at the level of the Board of Directors, which itself has an Ethics, Environment and Sustainable Development Committee. The sustainable development policy is the responsibility of a member of the Executive Committee.

Governance of sustainable development is based on a management structure consisting of bodies backed by the highest level of the company:

The **Ethics, Environment and Sustainable Development Committee**, which stems from the Board of Directors, assures that sustainable development practices are taken into account in the work of the board and the Group's management.

A **steering committee on the Group's sustainable development policy**, made up of:

- heads of sustainable development in the Business Lines;
- management of functional departments (strategy and sustainable development; human resources; ethics and compliance; health, safety, management systems).

Its mission includes the preparation of annual action plans, the monitoring of their implementation and capitalizing on the experience of the various Business Lines.

Incorporating sustainable development into the management of GDF SUEZ is a vital way of ensuring that environmental and social criteria are taken into account by the business entities in the management of their activities and the measurement of performance, with the same importance as financial and economic criteria.

The sustainable development management system is part of the Group's organization. The goal is to establish a system allowing constant progress. To achieve this, sustainable development needs to be included in the criteria examined in performance reviews, with a regularity adapted to each Business Line, at least once a year. In addition, the audit and internal control sections are looking to incorporate certain implementation aspects into their schedule and mechanisms, coordinating their actions with the Strategy and Sustainable Development Department.

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## 6.6.2 ENVIRONMENTAL INFORMATION

### 6.6.2.1 Environmental Policy

For a foreword, see paragraph 6.6.2.5. “methodological elements in 2008 environmental reporting”.

Due to the nature of its activities, GDF SUEZ is positioned at the core of environmental concerns: climate change, pressure on water and energy resources, and the protection of our natural environment and heritage. While the Group’s activities can have a positive impact on the environment, they also have impacts on natural resources and the environment that must be measured, controlled and reduced to a minimum through a process of continuous improvement.

GDF SUEZ takes concrete measures to reduce the direct impact that the production of electricity, energy services and gas-related activities have on the environment. The Group has implemented a Sustainable Development management program, one of whose objectives is to reduce the financial risk associated with environmental management. GDF SUEZ offers its municipal and business customers innovative solutions to their environmental issues that are both efficient and cost-effective, helping them carry out their legal responsibilities for managing water and waste products and improving their use of energy resources.

The Group ensures that all installed or managed facilities and services continually comply with the growing demands of environmental regulations, anticipating new laws to ensure that it best meets the expectations of its customers and stakeholders.

Through a network of Environmental Officers, the Group encourages its subsidiaries to implement environmental policies based on their particular businesses, local economic conditions, and the expectations of their industrial and community customers.

Risk management is a daily function, based on the growing number of certified environmental management systems implemented within the Group and on risk management plans developed for that purpose. Employee training, innovation, and research programs all contribute to the operational control of these risks. The Group naturally carries out studies of the environmental impact of its activities prior to commencing them and closely follows their deployment with regular measurement of emissions and discharges to ensure that they continue to comply with the relevant regulations.

At the end of 2008, the entities which had published a policy or statement of environmental commitment represented 92.2% of sales relevant to the Group’s environmental impact. These commitments may lead to the implementation of environmental management systems (EMS) based on economic conditions and interest in this type of process. These EMS would then be subject to external certification. At 31 December 2008, 48.8% of pertinent revenues were covered by certified environmental management systems (ISO 14001 certificates, EMAS registrations<sup>(1)</sup>, ISO 9001 version 2000 certificates with an environmental component, and local certifications).

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(1) «Eco Management and Audit Scheme»: regulation created by the European Commission to provide a framework for voluntary programs of eco-management through an EMS. Any business already ISO 14 001 compliant can obtain an EMAS certificate if it publishes an environmental declaration that meets the EMAS criteria.

Percentage of relevant revenues covered:

Indicator names	GDF SUEZ 2008	Scope covered (% of relevant revenues)
by an EMAS certification ■	6.70%	94.4
by an ISO14001 certification (not EMAS) ■	39.40%	96.5
by other external EMS certifications	2.70%	93.5
by an internal certification (but not by a certified EMS)	21.20%	93.7

- Reviewed by Auditors with a “moderate” assurance opinion.
- Reviewed by Auditors with a “reasonable” assurance opinion.

Whenever the implementation of a certified or registered management system is not economically justifiable, the entities involved are encouraged to define an internal environmental management system which guarantees proper treatment of the environment during execution of their strategy. Some Group entities have thus found it more useful to define their own management system standards and have them recognized internally.

GDF SUEZ is testing a **system for dynamically self-assessing** the maturity of EMSs, thus enabling operational sites to easily identify areas for improvement and evaluate the adequacy of their environmental management systems in the light of local circumstances. This system also allows them to monitor their progress and conduct a comparative analysis with other Group sites. In 2008, 258 sites actively participated in this environmental self-evaluation. Once it has been adjusted, the tool will be available to all Group businesses from 2010 onwards.

In addition to this constant improvement to environmental management systems, the Group has made an ongoing effort to educate personnel about environmental issues.

### 6.6.2.2 Strengthening performance measurement and monitoring systems

In order to direct the execution of its environmental policy, control environmental risks and encourage the communication of its environmental performance to stakeholders, GDF SUEZ has developed a specific reporting system, compliant with the French NRE law <sup>(1)</sup>, based on work carried out by international bodies such as the Global Reporting Initiative (GRI) or the World Business Council for Sustainable Development (WBCSD). The information from this reporting is also released in the Group’s business and sustainable development report.

Environmental reporting is closely linked to reporting on operational performance and therefore serves as a management tool. This desire to include environmental elements as an integral part of management processes is led by the Group’s Executive Management. Environmental audits are carried out by auditors trained in the Business Units and by Corporate departments to

ensure that environmental regulations are respected in the field and to measure major environmental risks.

A letter system for ethical compliance and environmental conformity ensures the involvement of operational management, who undertake to provide quality information which accords with benchmarks, and is controlled, verified and confirmed.

### 6.6.2.3 Daily environment management

The environmental policy of the GDF SUEZ Group intends to stimulate initiatives at the operational level that respond to the major challenges of sustainable development, such as climate change, the preservation of natural resources, and the control of environmental impacts.

#### 6.6.2.3.1 Environmental Legislative and regulatory framework

Environmental at law is increasing rapidly, and the Group’s activities are so varied that any regulation aimed at reducing emissions into air, water or soil, or impacts on biodiversity and health, have a more or less direct influence on the Group’s management of installations.

For European installations, the Directives and their transpositions into national law are the reference texts, which can be put into four categories.

- regulations imposing restrictions on performance by type of facility, such as the IPPC (2001/80/EC) directives <sup>(2)</sup>;
- regulations governing local or global impacts on affected areas, such as the directives for a community policy concerning water (2000/60/EC), ambient air quality (96/62/EC) and environmental responsibility (2004/35/EC);
- directives establishing global objectives imposed on emitters such as the directive setting national emission ceilings (2001/81/EC), establishing the exchange system for greenhouse gas emission quotas (2003/87/EC), and those promoting cogeneration (2004/8/EC) and the use of renewable energies (2001/77/EC);

(1) The French law on new economic regulations (NRE) fixes an obligation, for French companies listed on a regulated market, to submit an annual report concerning their management of social and environmental consequences resulting from their activity.

(2) The IPPC (Integrated Pollution Prevention and Control) directive submits to authorization industrial and agricultural activities that have strong pollution potential. Such authorization may only be granted subject to the respect of defined environmental conditions in order for companies to take responsibility for preventing and reducing the pollution they are liable to cause.

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- the various specific directives such as directive 2003/105/EC, (the Seveso directive), governing the storage of dangerous products, the wastes directive currently being negotiated, the underground waters directive, the bathing water directive, the European REACH directive<sup>(1)</sup>, requiring the registration of tens of thousands of chemical substances produced or imported in Europe, the E-PRTR regulation<sup>(2)</sup>, which significantly enlarges the obligations for yearly reporting, etc.

Each of these directives is subject to periodic revisions, which are difficult to forecast precisely but which tend to push for more systematic enforcement of restrictions. In addition, their transposition into national and regional legislation is often extremely inconsistent, with each government including its own environmental objectives and socio-economic restrictions.

It is interesting to note that increasing the severity of restrictions encourages the use of outsourced services through companies such as GDF SUEZ, since such restrictions makes demands on the service providers that the bigger companies are better placed to meet.

**Environmental Responsibility**

Directive 2004/35/EC of the European Parliament and the Council dated April 21, 2004 on environmental responsibility with regard to the prevention and repair of environmental damage has now been transposed into the laws of member states. It defines additional rules of responsibility toward a new third party: the environment (limited to water, soil, species and natural habitats). Damage may be found (by the public authorities) even if there is no proven fault and even if the facility causing the damage is in compliance with its permits and licenses. According to this directive, the operator is the primary responsible party. The text stipulates non-retroactivity and will apply, therefore, only to damages caused after the date of transposition.

The GDF SUEZ sites closest to the zones identified as vulnerable in the text (Natura 2000 zones and “sensitive” rivers) are being mapped in order to draw up a list of the sites most likely to cause environmental damage. This vulnerability has two aspects: these sites may be potentially polluting (pollution by treatment and landfill facilities, by effluents from a purification station, sludge, industrial waste-land) or potentially the victims of pollution (pollution of the water resources used for drinking water, pollution of soil by a third party).

Once these sites have been identified, they are subject to visits, technical meetings and possibly action plans, in collaboration with local players and recognized experts (Natural History Museum in France). The action plans thus decided are rigorously followed by the correspondents of the Business Lines concerned.

**6.6.2.3.2 Climate Change**

The institutional framework governing carbon restrictions results from the United Nations framework agreement on climate change, the Kyoto Protocol and, in Europe, the directive governing the European Union Emissions Trading System (EU ETS).

In 2008, the Group’s greenhouse gas emissions (GHG), excluding third-party and vehicle fleet emissions, totaled 99.5 million tons eq. CO<sub>2</sub>.

Note that the scope chosen for the environmental reporting is specific (it concerns the facilities for which GDF SUEZ has technical operational control) and consequently differs from that adopted, for example, for the evaluation of the electricity production facilities.

Indicator names	GDF SUEZ 2008	Scope covered (% of relevant sales)
Total GHG emissions (excluding tertiary emissions and land vehicles) ■■	99,569,435 t CO <sub>2</sub> equiv.	95.8
GHG emissions – vehicle fleet	3,033,223 t CO <sub>2</sub> equiv.	93.7
GHG emissions by business unit – energy production	398.4 kg CO <sub>2</sub> /MWh equiv.	93.7
GHG emissions by business unit – gas exploration and production	5.1 kg CO <sub>2</sub> /MWh equiv.	93.7
GHG emissions by business unit – gas storage	1.2 kg equiv. CO <sub>2</sub> /MWh equiv.	93.7
GHG emissions by business unit – gas transport (excluding LNG)	1.2 kg equiv. CO <sub>2</sub> /MWh equiv.	93.7
GHG emissions by business unit – LNG terminals	1.6 kg equiv. CO <sub>2</sub> /MWh equiv.	93.7
GHG emissions by business unit – gas distribution	8.5 kg equiv. CO <sub>2</sub> /MWh equiv.	93.7
GHG emissions by business unit – incineration	339.1 kg equiv. CO <sub>2</sub> /t	93.7

- Verified by Auditor with a “moderate” assurance opinion.
- Verified by Auditor with a “reasonable” assurance opinion.

(1) The REACH regulation (Registration, Evaluation, Authorisation and Restriction of Chemical substances) establishes a unique integrated system for the registration, evaluation and authorisation of chemical substances in order to improve the protection of human health and the environment.

(2) The E-PRTR (European Pollutant Release and Transfer Register) requires annual reporting of corresponding data.

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## OVERVIEW OF ACTIVITIES

### 6.6 SUSTAINABLE DEVELOPMENT

The impact of the provisions made to fight climate change is particularly important for the heat and electricity generating activities of GDF SUEZ within the EU.

Through its early initiatives (“learning by doing”), its unique combination of business activities (in environment, energy, natural gas trading and industrial services), the flexibility of its production capacity, an organizational structure that combines policy communications at Group level with actions taken at the decentralized operational level, and its efforts to contribute to the development of technologies allowing significant emission reductions over the long-term, GDF SUEZ has made excellent preparations for the future and is in a favorable position compared to its direct competitors.

The Group has the structures and knowledge necessary for managing CO<sub>2</sub> risk. These strengths enable the GDF SUEZ entities to make the economic trade-offs based on the choice of fossil fuels and the use, purchase or sale of quotas. The Group’s significant trading business make it a major player on the emissions trading market.

The Group is continually reducing the specific CO<sub>2</sub> emissions (calculated on a like-for-like basis) linked to its activities, in particular the transport of natural gas and the production of electricity and heat: the use of natural gas and gas-steam turbines (combined cycle GST) for power production, cogeneration for urban heating and industrial applications, and the growing use of biomass in traditional facilities.

In addition, **GDF SUEZ is an active participant in the development and promotion of other renewable energy sources** (wind, hydraulic, biomass, biogas, solar, geothermal energy, incineration of the biodegradable portion of waste) where economic conditions permit. In 2008 these accounted for over 10.5 GW of installed electricity equivalents or 16.5% of the Group’s total installed capacities.

The use of biomass is encouraged, most often in combined production with coal. The Group is also developing wind power as part of its drive for green energy.

As regards control of CO<sub>2</sub> emissions from industrial facilities, and particularly power stations, GDF SUEZ is examining the promising field of CO<sub>2</sub> capture, transport and geological storage. A Group program was set up within the DRI at the end of 2008, capitalizing on the numerous research and innovation businesses undertaken in this area in the various Business Lines and departments of the Group. The technology for the capture, transport and storage of CO<sub>2</sub> emissions should ultimately enable the Group to underwrite its investments in new capacity powered by fossil fuels, in a context of increasing CO<sub>2</sub> constraints, and to maintain the flexibility which today characterizes its electricity generating capacity. Eventually, once the institutional and legal framework is favorable and the economic and financial conditions for profitability are achieved, the Group should be able to build thermal power stations equipped with carbon capture and storage systems and provide solutions for the transport and storage of these emissions.

The Group is developing a portfolio of research and pilot projects so that it is in a position to evaluate the technical, economic and legal implications of this technology. The following projects illustrate the initiatives underway within the Group.

The Group is collaborating in several research projects:

- DECARBit (“Decarbonise it”). This project is being developed in the context of the 7th Framework Program for Research and Development (FP7). It started in 2008 and should be concluded by 2010. The structure of the research, technological development and demonstration (RDT) is based on five sub-projects including the integration and optimization of systems, advanced techniques for separating CO<sub>2</sub> in pre-combustion and technologies for separating oxygen in pre-combustion.
- CESAR, also developed within the framework of the FP7, runs from 2008 to 2010 and concerns the new activities and innovations in the areas of post-combustion capture, high-flow membranes and innovative solvents. The main objective is to reduce the cost of CO<sub>2</sub> capture to €15/tCO<sub>2</sub>.
- The *Amélioration du CAptage du CO<sub>2</sub> Industriel et Anthropique* project (ACACIA, French acronym for “improving industrial anthropic CO<sub>2</sub> capture”), co-financed by the Unique Inter-ministerial Fund and certified by the Axelera Chemistry and Environment Competition Zone, aims to reduce the costs of the procedure to capture CO<sub>2</sub> using solvents and to develop new innovative physical and chemical procedures.

The Group directs or participates in pilot projects such as:

- A pilot project to test post-combustion capture. This pilot project was developed in collaboration with Hitachi and E.ON. Components and containers are being pre-assembled, and permits are under-going the final review before submission. In a real situation, the pilot site should be able to process up to 5,000 Nm<sup>3</sup>/h of post-combustion gas, i.e. 1 t/h of CO<sub>2</sub>. This installation is mobile and will be used for four years on various sites belonging to the E.ON group and to our subsidiary Electrabel.
- With its partners, CRIGEN is developing an innovative technology to capture the cryogenic CO<sub>2</sub> using the cold energy in the LNG of gas terminals with a view to increasing the efficiency of the procedures, reducing costs and taking advantage of the synergies between LNG terminals and thermal power stations located nearby.
- In 2008 the Group maintained its commitment to research into CO<sub>2</sub> storage, following the cooperation agreement signed in 2007 with the Vattenfall group concerning an experimental project on the Altmark site, involving injecting CO<sub>2</sub> and improving the recovery of natural gas. In addition, the group is continuing the experimental injection of CO<sub>2</sub> started in 2004 on the K12-B field located on the Dutch continental shelf.

**In the environmental sector**, efforts are focused on optimizing collection circuits, the progressive replacement of the vehicle fleet and the use of less polluting alternative fuels, the collection and treatment of methane from landfill sites, and the retreatment of purification sludge. With regard to the treatment of non-hazardous waste, the policy consists of improving recycling, producing high quality compost and green energy from incineration plants and technical landfill centers.

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**Project mechanisms**

GDF SUEZ remains alert to opportunities which may arise in the context of Clean Development Mechanism (CDM) and Joint Implementation (JI) projects when the anticipated revenues cover the additional costs of GHG reduction. Several experiments are underway in the energy and environmental sectors alike.

**Trading emission rights**

Our experience in this field increases the Group's ability to react promptly and efficiently to future developments in the market for CO<sub>2</sub> emission rights. In all situations where significant investments are required, the analysis of the risk factors and economic impact still present numerous uncertainties. These uncertainties include fluctuations in fuel prices (particularly with the introduction of CO<sub>2</sub>

restrictions), the possibility of being able to take advantage of incentive mechanisms intended to promote renewable sources, administrative delays required to obtain operating licenses for new facilities, and the market prices adopted by the European system of emission quotas. Our experience in these areas is an important success factor.

**6.6.2.3.3 Renewable Energies**

GDF SUEZ continues to make progress in gaining access to renewable energy sources. In Europe, the Group is progressively contributing to the objective established by the EU of supplying 20% of total energy consumption in renewable energies by 2020.

Indicator names	GDF SUEZ 2008	Scope covered (% of relevant revenues)
Renewable – Net Installed Power (electric and thermal) ■	10,544 MWeq	97.2
Share of renewable resources in installed capacities	16.5%	94.7
Renewable – Electricity and heat produced ■	45,746 GWeq	97.9
Energy produced – share of large hydro	86.0%	
Energy produced – share of small hydro	1.6%	
Energy produced – share of wind power	2.8%	
Energy produced – share of geothermal	0.1%	
Energy produced – share of solar	0.0%	
Energy produced – share of biomass (excluding thermal)	4.6%	
Energy produced – share of biogas	2.2%	
Energy produced – share of incineration of the biodegradable part of waste	2.6%	

- Reviewed by Auditors with a "moderate" assurance opinion.
- ■ Reviewed by Auditors with a "reasonable" assurance opinion..

*These capacities correspond to the scope of environmental reporting scope.*

The Group has a particularly diversified portfolio of renewable energies, and is present on all energy sectors both in Europe and world-wide.

The Group continues to pursue its development policy in this respect. The proportion of its capacity represented by hydraulic power production remains central.

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## OVERVIEW OF ACTIVITIES

### 6.6 SUSTAINABLE DEVELOPMENT

#### 6.6.2.3.4 Energy Efficiency

The consumption of primary energy and electricity are managed with utmost regard for energy efficiency.

Indicator names	GDF SUEZ 2008	Scope covered (% of relevant revenues)
Consumption of primary energy – Total ■■	382,088 GWh	96.3
Share of coal/lignite	22.8%	
Share of natural gas	68.2%	
Share of fuel oil (heavy and light)	2.9%	
Share of alternative fuels	2.1%	
Share of biomass	3.7%	
Share of waste	0.1%	
Share of other fuels	0.2%	
Electricity consumption – Total ■■	6,081 GWh	88.2
Energy efficiency of fossil fuel power stations (including biomass) ■■	42.8 %	96.3

- Reviewed by Auditors with a “moderate” assurance opinion.
- Reviewed by Auditors with a “reasonable” assurance opinion..

Specialized companies of the Energy Services Business Line are strengthening their positions as providers of energy and environmental efficiency. They optimize their facilities and those of their customers in order to reduce consumption without, however, affecting the effectiveness or quality of the supply and while taking care to ensure the efficiency of the energy systems. This policy also holds for every step in the service, from the initial diagnostics to implementation, in the selection of equipment and the energy source. In addition, these specialized companies assure see to it that the yield of the energy systems does not decline over time. As operator of the facilities entrusted to them, they react to every anomaly and mobilize their expertise. They make a long-term commitment through result-oriented contracts, thereby guaranteeing the continuity of the environmental performance.

The Group has numerous natural gas combined cycle power stations and co-generation units using the best performing production technologies, with yields in the order of 55% and 85% respectively.

#### 6.6.2.3.5 Nuclear Energy

Output from the Group’s nuclear sites, compared with the best fossil fuel technologies, prevents the emission of at least 20 million tons of carbon dioxide every year; thus, it makes a very substantial contribution to the effort to reduce greenhouse gas emissions. A steady reduction in the volumes of low and medium radioactive waste was also achieved. In effect, in relation to the kWh produced, the volume of those wastes in 2008 represented slightly less than half the volume in 1997. The downstream segment of the nuclear fuel cycle represents all the operations related to this fuel after it is used in a nuclear reactor. The costs related to this part of the cycle are, and will be, covered by provisions. These provisions, which totaled €3.399 billion at the end of 2008, are governed by the Belgian law of April 11, 2003.

The costs of dismantling nuclear plants after their closure have also been provisioned under the law of April 11, 2003. The provisions established at end 2008 stand at €1.829 billion.

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Indicator names	2008 data	Scope covered (% of relevant revenues)
Radioactive gas emissions		
• rare gases	28.82 TBq	100%
• iodines	0.0874 GBq	100%
• aerosols	0.0120 GBq	100%
Radioactive nuclear waste (weak and average activity)	282.2 m <sup>3</sup>	100%
Radioactive liquid wastes:		
• Beta and Gamma emitters	26.50 GBq	100%
• tritium	77.34 TBq	100%

### 6.6.2.3.6 Managing and protecting natural resources

The increasing scarcity or degradation of resources in certain countries where the Group operates has led GDF SUEZ to sensitize its operations to the need for an integrated management of natural resources, in particular the dependence on fossil energies, economies in raw materials through substitution of recycled wastes, the preservation of the quality of water reserves through the purification of waste water and finally the restoration of water intended for consumption.

This is an approach that integrates all the issues related to water and sanitation services (preservation of the resource, agriculture,

land management) and the resolution of potential conflicts through negotiations with all stakeholders.

Procedures to monitor the quality of drinking water that is produced and distributed, as well as the discharge from purification stations, are carried out at the local level through self-inspections that are reported to the head office; the head office then measures the performance data. In the area of waste-water purification, the Environnement Business Line, in partnership with the communities for which it operates, ensures compliance with and, if possible, anticipates the standards for waste water discharges and the use of sludge.

The indicators reported concern the consumption of water related to the industrial process.

Indicator names	2008 data	Scope covered (% of relevant revenues)
Consumption of water for industrial use ■	87.70 Mm <sup>3</sup>	97.7%
• Consumption of surface water	60.17 Mm <sup>3</sup>	
• Consumption of water table water	7.93 Mm <sup>3</sup>	
• Consumption of public network water	19.60 Mm <sup>3</sup>	
Water consumption for cooling ■	151.73 Mm <sup>3</sup>	99.5%
• Consumption of evaporated surface water	138.90 Mm <sup>3</sup>	
• Consumption of water table water	7.32 Mm <sup>3</sup>	
• Consumption of public network water	5.50 Mm <sup>3</sup>	
Loss of water/km of network ■	11.6 m <sup>3</sup> /km/day	99.7%
• quantity of leachates collected in the storage centers	3.9 Mm <sup>3</sup>	100%
• quantity of leachates processed (externally or internally) ■	3.9 Mm <sup>3</sup>	100%
• pollution load treated in sanitation networks (DBO5 eliminated) ■	483.2 kt/year	100%

■ Reviewed by Auditors with a "moderate" assurance opinion.

■ ■ Reviewed by Auditors with a "reasonable" assurance opinion.

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### 6.6 SUSTAINABLE DEVELOPMENT

Preservation of natural resources is also achieved by encouraging the evaluation and recycling of wastes. The percentage of waste recovered in the form of matter or energy represents 42% of the total waste treated in the waste treatment sector. The Group believes that the recovery of treated sewage sludge (47.9% in 2008) for use as agricultural fertilizer is also a promising market.

SUEZ Environnement is also developing its high-temperature incineration operations for hazardous wastes in specialized furnaces or recovers such wastes as replacement fuels with its cement plant partners. Another way to recycle hazardous wastes is the regeneration of used oils and solvents. SUEZ Environnement is also substantially expanding its businesses in soil reclamation and cleanup, either through operations performed on contaminated sites or by extracting materials for treatment in its network of specialized facilities.

Indicator names	2008 data	Scope covered (% of relevant revenues)
Total quantity of waste & non-hazardous by-products discharged (including sludge) ■	6,856,348 t	94.7%
• Fly ash, Refioms	3,212,722 t	
• Ash, bottom ash	2,348,431 t	
• Desulphurization by-products	195,546 t	
• Sludge from purification and drinkable water stations	638,785 t	95.3%
Total quantity of waste & non-hazardous by-products recovered (including sludge) ■	4,695,299 t	94.1%
Total quantity of waste & non-hazardous by-products discharged (excluding radioactive waste) ■	249,045 t	89.7%
Total quantity of waste & non-hazardous by-products recovered (excluding radioactive waste) ■	14,042 t	92.3%

■ Reviewed by Auditors with a "moderate" assurance opinion.  
 ■■ Reviewed by Auditors with a "reasonable" assurance opinion.

The businesses of the GDF SUEZ Group are implicitly tied to the resources provided by the natural environment and may, therefore, be negatively affected by environmental deterioration. The preservation of energy resources is also a strategic consideration for

energy producers. The management of natural resources implies, above all, the continual improvement of energy efficiency and the increased use of renewable energy sources.

#### 6.6.2.3.7 Reducing and controlling pollutants

Indicator names	2008 data	Scope covered (% of relevant revenues)
NOx emissions ■	105,860 t	94.3%
SO <sub>2</sub> emissions ■	202,203 t	95.2%
Particle emissions ■	9,549 t	97.6%

■ Reviewed by Auditors with a "moderate" assurance opinion.  
 ■■ Reviewed by Auditors with a "reasonable" assurance opinion.

GDF SUEZ uses a broad variety of techniques to continue to cut its emissions: reduction at source using a tailored energy package; water injection to reduce particles, urea injection to control nitrogen oxides, optimization of combustion and smoke treatment.

#### Pathogens

Certain parts of cooling systems for energy production installations use river water. At certain times of the year, pathogenic organisms can develop in the cooling system, encouraged by an appropriate

temperature. In order to avoid or at least limit this phenomenon, analyses, studies and means of control have been implemented over recent years.

Regarding the risk of Legionnaire's disease, the Energy Services Business Line offers its customers an optimized operating approach adapted to each facility, which can be easily integrated with pre-existing services. In contrast to partial and occasional measures, this is a long-term global approach.

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**6.6.2.3.8 Management of biodiversity**

Biodiversity is the term for the biological wealth represented by all living organisms and their relationships with their environments. The diversity of biological species underlies our rich reserve of natural resources and “free” services. The protection of this diversity is vital. Deterioration of biodiversity is now a concern and may result in a decline in the natural resources vital to the group’s businesses.

The GDF SUEZ Group bases its policy on the actions proposed under the Convention on Biological Diversity adopted in Rio de Janeiro in 1992.

In 2008, the Group participated in local environmental actions in France concerning controlled landfill sites, and in South America, protecting Amazonian forests during the construction of new dams. GDF SUEZ was also active in national and international initiatives on the economic evaluation of eco-system services and the recording of indicators and off-setting methods. Two new biodiversity indicators were introduced in the fiscal year. Finally, internal training was carried out, in collaboration with UICN, to raise awareness among GDF SUEZ employees about the importance of preserving natural resources.

**6.6.2.4 Active prevention of environmental risks**

In support of the central audit program for managing of environmental issues, the Business Lines and units are encouraged to implement their own system of environmental audits in order to accelerate coverage of their sites. Specific internal procedures are being implemented at most of the sites in order to define responsibilities for environmental management and monitor the effectiveness of environmental audits measuring the levels of environmental compliance of facilities.

In the waste services businesses, each waste treatment site has undergone at least one environmental audit every 3 years. These audits identify any failures to comply with current regulations, detect specific risks, and implement correction plans.

In the water sector, each subsidiary is responsible for its own system for managing its environmental risks. A centralized control process, similar to the one established for waste, has been in operation for the past 3 years. Finally, risk-prevention plans are included or precede the implementation of an environmental management system.

There were 53 complaints and 11 fines relating to environmental damage, totaling €489,000 in compensation. These figures are low given the size of the Group, the industrial nature of its businesses, and its direct expenditures for the environment. In 2008, environmental expenditure (current operational investment and spending linked to the preservation of the environment) amounted to €4,472 million.

Indicator names	2008 data	Scope covered (% of relevant revenues)
Environment-related claims	53	96.06%
Environment-related fines	11	98.30%
Amount of compensation	€489,000	99.5%
Environmental expenditures:	€4,472 million	100%

The management of industrial and environmental risks has two components: risk prevention and crisis management.

Indicator names	2008 data	Scope covered (% of relevant revenues)
Environmental analyses	65.2% relevant revenues	100%
Plan for prevention of environmental risks	75.9% relevant revenues	100%
Plan for management of environmental crises	79.8% relevant revenues	100%

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## OVERVIEW OF ACTIVITIES

### 6.6 SUSTAINABLE DEVELOPMENT

#### 6.6.2.4.1 Crisis management for operating continuity

The business units have established crisis management plans that involve two levels of response: an emergency standby system to ensure immediate mobilization of the crisis management resources, and a proper crisis mechanism that effectively manages crises over a period of time. This plan provides for the organization of a crisis unit that is capable of taking into consideration internal or external impacts, whether they are technical, social, health, economic, or image-related. For this purpose, emphasis is placed on increasing the awareness and training of crisis management teams, particularly through simulations, and on developing a culture of exchange among local teams and their outside contacts.

#### 6.6.2.4.2 Environmental risk management policy – Law of July 30, 2003 governing the prevention of technological risk

Risk management is an essential component of the Group's environmental policy. The environmental risks related to the most dangerous sites are covered by strict and specific national and international regulations and are subject to regular inspections by public authorities and the Group's experts.

Within the boundaries of the European Union, the Group manages 12 "high threshold" Seveso classified sites in France, Germany, Hungary, Spain, Belgium and the Netherlands.

#### 6.6.2.4.3 Former industrial sites

GDF SUEZ pays particular attention to former industrial sites which are likely to present an environmental risk.

As such, GDF SUEZ, from the beginning of the 1990, has been involved with the Ministry of the Environment in a voluntary, ordered and coordinated treatment action at former gas plants, beyond the strict application of legislative and regulatory obligations. There has thus been an exhaustive inventory of these sites and they have been ranked according to their environmental sensitivity. The commitment of GDF SUEZ led to the signing on April 25, 1996, of an agreement for control and monitoring of the restoration of former gas plant sites in conjunction with the Ministry of the Environment for a period of ten years. The commitments of the agreement were implemented by all of the 467 sites and a summary was created in conjunction with the Ministry of the Environment.

In Germany, the Group continued its program of restoring sites polluted by its former activities (gas plants and exploration and production sites). This work is conducted in close cooperation with regional authorities.

The obligations for future dismantling of exploration-production facilities are governed by the laws of different countries in which GDF SUEZ operates.

#### 6.6.2.5 Methodological elements in 2008 environmental reporting

In order to ensure the transparency and reliability of the data it publishes, GDF SUEZ 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 by both the SUEZ Group and Gaz de France, in accordance with the Global Reporting Initiative guidelines.

The SUEZ Group carried out the first stage on the data for the 2001 fiscal year, which consisted of a review of the reporting procedures for performance indicators. From 2003, the auditors issued an opinion on the reporting procedures for environmental data and on the quality of certain indicators. The scope and the quantity of indicators checked was extended every year and the comments of the auditors taken into account for the following period.

Gaz de France started to report on its sustainable development activities in 1999 with its first environmental report. Since 2001, Gaz de France has published a sustainable development report including environmental indicators checked by its auditors.

GDF SUEZ's 2008 environmental reporting can be seen as the culmination of the work on the harmonization of standards, i.e. procedures, methods and definitions.

Special attention has also been paid to the introduction of a common reporting tool enabling the structured communication of data. This tool, called CERIS, is an IT solution for environmental reporting, which enables the management of the network of environment correspondents 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 supply 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 inside most Business Lines and subsidiaries.

The procedures for defining the scope of environmental reporting are such as to cover the performance and impact as a whole for the facilities in which the Group holds technical operational control. The legal entities included in the reporting scope were those whose operations were relevant in terms of environmental impact (excluding, therefore, energy trading and financial and engineering activities), and that were either fully or proportionately consolidated (based on the financial consolidation rules). Those entities report the performance and impact of the facilities in which they hold technical operational control, including facilities operated on behalf of third parties.

This rule was made in order to best respect the Global Reporting Initiative (GRI) guidelines. It involves a structure of stakeholders or partners (from the business world, audit companies, human rights, environment and labor organizations, and government representatives) which creates a common working framework for the publication of sustainable development data.

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In addition, 100% of the impacts reported are consolidated when the entities are fully consolidated. For the entities proportionally consolidated, the environmental impacts are consolidated in proportion with the level of financial consolidation in the Group if it has 100% of technical operational control or if it is shared with other shareholders. The only exception concerns management indicators which are published unadjusted since they are based on already weighted relevant revenues (cf. below).

In addition, on the basis of consolidated revenues, relevant revenues (after excluding the revenues generated by the businesses that are not considered relevant in terms of environmental impact) are defined and identified for each legal entity. The coverage of these relevant revenue figures by each of the environmental management indicators is carried over.

The set of procedures for reporting environmental data consists of a generic procedure based on standard guidelines to be used at the appropriate levels of the reporting process. The implementation of the procedures throughout the Group relies on a network of duly authorized environmental agents and coordinators. These procedures and work guidelines at the Group and Business Line level detail the collection, control, consolidation, validation and transmission of environmental data at the various levels of the organization as well as the rules defining scope and consolidation. They include technical documents that provide methodological guidelines for calculating certain indicators. The list of the entities included in the scope of environmental reporting is attached to the procedures and guidelines.

The definitions of indicators used to measure environmental performance in the Group's businesses have been revised on the basis of the Auditors' comments. They have also benefited from comments by operational managers represented in a dedicated work Group. The entire documentation is available on request from the Group.

The following should be noted about the data published in this report and in the Activity and Sustainable Development Report:

1. The 2007 data presented is a synthesis of data published by Gaz de France and SUEZ when this data was available. For Gaz de France, the scope was extended to proportionally consolidated entities in order to respect the rules of the scope of the new Group. In addition, while last year some of the data was partly or entirely audited, the synthesized data was not submitted to auditors for the 2008 publications. This historical data is therefore provided for information only.
2. Responsible for the waste generated by its activities, the GDF SUEZ Group maintains indicators on the recovery of its waste. However, concepts of waste and recovery vary between countries and local regulations.
3. The reliability of the scope of the environmental reporting is one of GDF SUEZ's priorities which is evolving in an international context of the sale and acquisition of businesses. This scope is determined on June 30 of the fiscal year. Where a sale takes place after this date, the company is expected to complete the environmental questionnaire with the data available on the last day of the month preceding the sale. Acquisitions made after June 30 are not taken into consideration unless the CEO of the appropriate Business Line has made an exceptional request and on condition that the data is available.

4. Conscious of what is at stake in water management, GDF SUEZ is also pursuing its efforts in the global control of water consumption, for all uses and types of site combined. Particular attention has been paid to the risks of double counting and the possible confusion between industrial water use and cooling water.
5. Data linked to the gas tanker business, including impacts and consumption, has been assimilated to the data of an operating site, and is therefore reported as such. For 2008, only the vessels in which the GDF SUEZ Group had a majority share or those operated by a subsidiary in which GDF SUEZ had a majority share have been chosen. The following fall into that category: SUEZ Matthew, Tellier, Gaz de France energyY, Provalys and Gaselys
6. The environmental indicators of the Cartagena site are not reported due to the particular structure of the contract: the Group has production capacity, but does not bear the industrial operating risks.
7. For consistency, the factor for conversion of thermal energy produced (GWhTh) into electrical energy (GWhe) is set at 0.44.
8. It should be noted that only leachates from class 2 Storage Centers are reported.
9. Significant environmental impact resulting from the provision of material services by subcontractors at one of the Group's installations are included in Group impacts unless a specific contractual clause allows that the subcontractor be held responsible for his impact on the site during the provision of services. Data provided by subcontractors is not systematically subject to internal verification before being added to Group data and is the responsibility of the subcontractors.
10. Legal rules and requirements concerning the environment differ from one country to another and certain data may thus sometimes be more difficult to obtain (e.g. water consumption in the United Kingdom).

The correspondence of the Group's environmental performance indicators with the New Economic Regulations and the Global Reporting Initiative is documented in the summary table of environmental performance published in the Annual Activity and Sustainable Development Report.

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## OVERVIEW OF ACTIVITIES

### 6.6 SUSTAINABLE DEVELOPMENT

#### 6.6.3 COMMITMENTS TO SOCIETY

The GDF SUEZ Group aims to fulfill its responsibility to society in all the countries where it works. This commitment is even more important given today's economic and financial crisis.

The Group strives to include a societal aspect in its tender bids as well as long-term support for society to give its business a solid foothold and ensure that it is accepted by the different communities involved.

This approach currently calls for significant societal engineering resources, both centrally (in the Strategy and Sustainable Development Division in particular) and within each of the Group's operating entities.

The Group's commitment to society covers several different aspects:

- providing easier community access to Group products and services and supporting regional economic development
- providing aid to disadvantaged customers
- supporting non-profit and general interest organizations

##### 6.6.3.1 Group business sectors' support for society

As an international industrial group, GDF SUEZ is an active player in local socio-economic development. Through its involvement in long-term activities that provide essential services such as energy, water, and waste management, GDF SUEZ is a major player in local sustainable development. Its added value lies in a variety of major areas of development, including:

- installation of new infrastructures (natural gas, water, etc.);
- improvement of living conditions through access to services;
- solidarity, in form of the disadvantaged;
- preservation of the environment;
- job creation;
- impact on local economies (support for local small businesses);
- access to energy and water for disadvantaged populations.

As part of its projects, the Group is developing a variety of societal actions, many of which serve to demonstrate the Group's social innovation; for example:

- in Macao, SUEZ Environment Company introduced water rates that were adjusted for disadvantaged families.
- in Morocco, the LYDEC group's subsidiary provides electricity to the shanty towns of Casablanca through an original micro-credit system.
- in Brazil, the Group initiated social and environmental programs (rehousing assistance, infrastructure creation, etc.) alongside construction of the Sao Salvador and Estreito dams.

##### 6.6.3.2 Actions for disadvantaged customers

Solidarity is a key part of the Group's history and its culture. Wherever Group entities have domestic customers, they pay very careful attention to disadvantaged individuals.

The Group's solidarity policy is based on:

- introduction of complementary plans on top of the legal provisions in favor of the disadvantaged;
- the principles established in the document «GDF SUEZ Group Ethics».

As an illustration, the Group's entities that operate in France and its territories help finance Housing Solidarity Funds and offer a Special Solidarity Rate. In addition, GDF SUEZ is active in supporting residents of Sensitive Urban Areas. Through these efforts, it helps actively fund and supervise a network of 200 partner reception and information outlets for disadvantaged customers. The Group has also introduced an operation (SIGAZ) that aims to give families living in poorer neighborhoods information on the safety of their homes' facilities and educate them about the importance of saving energy. In just two years, 100,000 tenants benefited from this operation, a joint effort with more than 40 local social work organizations.

In Belgium, Electrabel applies the system set up by the public authorities to help disadvantaged customers. This Group subsidiary is also developing a specific support policy.

The Hungarian subsidiary Egaz-Degaz, in cooperation with the public authorities, has introduced rules for compensation in its billing system to benefit disadvantaged customers. In Romania, the Group subsidiary Distrigaz Sud has made a commitment to provide the disadvantaged with continuous natural gas supply during the winter months.

##### 6.6.3.3 Societal partnerships

The Group is working on an active partnership policy with recognized players in the area of solidarity to the disadvantaged.

In an example of this, the Group has received support for its work with the disadvantaged from EMMAUS France (three-year agreement from 2007 to 2009).

In addition, the GDF SUEZ Group provides support for the NGOs (non-governmental organizations) set up by group employees (Codegaz, Aquassistance, Energy Assistance). These NGOs have founded around 100 projects in Africa (Egypt, Algeria, Burkina Faso, Madagascar) and in Asia (India and Vietnam), primarily in the areas of access to water and energy.

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## 6.6.4 COMPANY INFORMATION

The following data for 2006 and 2007 is proforma (merger took place in 2008).

	GRI	France Energy Business Line			Energy Europe & International Business Line		
		2006	2007	2008	2006	2007	2008
Workforce by geographic zone ■■	LA1	7,023	10,012	10,104	25,392	26,086	23,919
France	LA1	7,023	9,978	10,081	131	141	133
Belgium	LA1				8,661	9,226	7,561
Other European Union	LA1		34	23	12,468	12,432	11,271
Other European countries	LA1					0	0
Total Europe	LA1	7,023	10,012	10,104	21,260	21,799	18,965
North America	LA1				1,600	1,678	2,009
South America	LA1				1,631	1,829	2,076
Asia – Middle-East – Oceania	LA1				901	780	869
Africa	LA1				0	0	0
% of reporting		100%	100%		100%	100%	100%
Distribution of Employees by Socio-Professional Category	LA1						
Managers ■	LA1	85	1,482	1,137	3,402	3,890	5,693
Non-managers ■	LA1	182	4,120	5,328	12,008	12,594	18,201
% of reporting		3.80%	55.95%	63.98%	60.70%	63.19%	99.90%
Proportion of women in Group							
Proportion of women in workforce ■■	LA13	28.61%	34.00%	33.00%	27.22%	27.20%	27.50%
% of reporting		100%	100%	100%	100%	100%	100%
Proportion of women in management	LA13	14.12%	22.16%	23.20%	18.11%	18.77%	20%
% of reporting		3.80%	16.90%	18.10%	60.70%	62.80%	66.10%
Distribution of employees by type of contract	LA1						
Open-ended contract	LA1	99.63%	97.10%	98.60%	92.83%	93.10%	94.10%
Other	LA1	0.37%	2.90%	1.40%	7.17%	6.90%	5.90%
% of reporting		3.80%	16.95%	54.20%	60.20%	62.79%	66.50%
<b>AGE PYRAMID. BASED ON EMPLOYEES WITH OPEN-ENDED CONTRACTS</b>	<b>LA1</b>						
less than 25 years old	LA1	4.14%	5.53%	5.30%	5.42%	5.53%	5.40%
25-29	LA1	10.53%	12.57%	11.30%	11.90%	13.57%	15.10%
30-34	LA1	15.41%	15.54%	16.70%	13.07%	12.68%	13.90%
35-39	LA1	14.66%	15.48%	16.90%	13.75%	13.81%	13.80%
40-44	LA1	16.92%	12.81%	12.70%	15.43%	14.71%	14.20%
45-49	LA1	18.80%	15.73%	14.70%	15.70%	15.12%	14.40%
50-54	LA1	14.66%	17.50%	16.10%	14.60%	13.93%	12.90%
55-59	LA1	3.38%	4.25%	5.80%	9.06%	9.31%	8.50%
60-64	LA1	1.13%	0.43%	0.40%	0.96%	1.21%	1.60%
65 and over	LA1	0.38%	0.12%	0.10%	0.11%	0.12%	0.20%
% of reporting		3.80%	16.95%	64.40%	60.22%	62.80%	38.70%

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## OVERVIEW OF ACTIVITIES

### 6.6 SUSTAINABLE DEVELOPMENT

	GRI	France Energy Business Line			Energy Europe & International Business Line		
		2006	2007	2008	2006	2007	2008
<b>STAFF AND EMPLOYMENT MOVEMENTS</b>							
Turnover	LA2	2.30%	0.70%	0.90%	6.85%	6.10%	5.60%
% of reporting		3.74%	16.90%	18.30%	57%	58.80%	60.20%
Voluntary turnover ■	LA2	1.50%	2.49%	2.40%	5.47%	3.67%	3.40%
% of reporting		3.74%	100%	97.80%	57%	96.77%	94.40%
Entrance rate	LA2	12.10%	10.34%	10.30%	9.89%	12.65%	14.10%
% of reporting		100%	100%	97.80%	98.78%	96.77%	94.40%
Open-ended contract entrance rate	LA2	54.84%	67.30%	61.60%	61.81%	67.70%	75%
% of reporting		3.74%	16.90%	18.30%	57%	58.80%	60.20%
% of disabled persons/avg. workforce				1.31%			0.25%
% of reporting							
Professional development							
% of trained workforce ■■	LA10	58.06%	66.45%	75.90%	52.74%	68.62%	79%
% of reporting		100%	99.66%	97.80%	99.62%	99.96%	70.30%
% of trained women	LA10	33.85%	36.95%	31.30%	23.46%	26.08%	28.10%
% of reporting		100%	99.66%	94.40%	99.78%	99.91%	71%
Proportion of managers and non-managers in trained workforce:	LA10						
Managers	LA10	79.31%	30.46%	32.90%	20.94%	20.84%	25.50%
Non-managers	LA10	20.69%	69.54%	67.10%	79.06%	79.16%	74.50%
% of reporting		0.60%	16.88%	18.30%	57.61%	62.00%	62.40%
Training costs per person (€)		1 008	896	934	1 180	1 177	1 626
% of reporting		3.74%	16.88%	18.30%	57.61%	61.97%	65.70%
Number of training hours per trained person	LA10	41	42	32	51	48	68
% of reporting		3.74%	99.66%	97.80%	57.61%	99.91%	70.30%
Number of training hours per trained woman		24	39	31	47	43	68
% of reporting		3.74%	99.66%	94.70%	57.61%	99.91%	71%
Training costs per hour of training		24	22	23	23	22	23
% of reporting		3.74%	16.88%	18.30%	57.61%	61.97%	64%
Hours of training by subject							
Job techniques		35.51%	44.00%	40.00%	42.55%	42.20%	40.80%
Quality. Environment. Safety		51.47%	30.70%	30.70%	16.54%	19.80%	18.70%
Languages		2.01%	2.70%	4.10%	7.50%	10.20%	16.20%
Other		11.02%	22.60%	25.20%	33.42%	27.80%	24.30%
% of reporting		3.74%	16.88%	18.30%	57.61%	61.97%	64%
Work conditions	LA7						
Days of absence per person			15	11		10	14.4
% of reporting			99.40%	97.80%		99.90%	73.60%
Overtime	LA7			1.51%			4.15%
% of reporting				18.30%			65.40%
Occupational safety							

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GRI	France Energy Business Line			Energy Europe & International Business Line		
	2006	2007	2008	2006	2007	2008
Number of accidental deaths (employees)* ■			0			2
* Note. in 2008: 1 accidental death at headquarters						
Frequency rate ■			14.85			2.17
Severity rate			0.33			0.06
% de restitution			100%			100%

■ Moderate assurance.  
 ■■ Reasonable assurance.

GRI	Global Gas & LNG Business Line			Infrastructures Business Line			
	2006	2007	2008	2006	2007	2008	
Workforce by geographic zone ■■	LA1	1 739	1 749	1 909	20 639	18 455	17 395
France	LA1	694	673	699	19 657	17 439	17343
Belgium	LA1			18	917	953	0
Other European Union	LA1	992	990	1058	65	63	52
Other countries Europe	LA1	30	61	101		0	0
Total Europe	LA1	1 716	1 724	1 876	20 639	18 455	17 395
North America	LA1		0	0		0	0
South America	LA1	4	4	4		0	0
Asia – Middle-East – Oceania	LA1					0	0
Africa	LA1	19	21	29		0	0
% of reporting		100%	100%	100%	100%	100%	100%
Distribution of Employees by Socio-Professional Category	LA1						
Managers ■	LA1	17	514	807	258	3 614	3 146
Non-managers ■	LA1	11	134	372	700	14 040	14 207
% of reporting		1.60%	37.05%	61.76%	4.60%	95.66%	99.76%
Proportion of women in Group							
Proportion of women in workforce ■■	LA13	27.08%	28.80%	28.70%	23.31%	19.30%	20.10%
% of reporting		100%	100%	100%	100%	100%	100%
Proportion of women in management	LA13	29.41%	37.50%	35.00%	12.40%	12.83%	-
% of reporting		1.60%	2.50%	2.60%	4.60%	5.40%	0%
Distribution of employees by type of contract	LA1						
Open-ended contract	LA1	100%	100%	100%	96.87%	97.00%	100%
Other	LA1	0%	0%	0%	3.13%	3%	0%
% of reporting		1.60%	2.46%	37.40%	4.60%	5.41%	95.80%
Age pyramid. based on employees with open-ended contracts	LA1						
less than 25 years old	LA1	0%	0%	2.30%	3.88%	3.93%	4.70%
25-29	LA1	17.86%	9.30%	15.60%	12.82%	12.91%	8.60%
30-34	LA1	25%	27.91%	22.90%	13.58%	13.43%	10.40%
35-39	LA1	14.29%	18.60%	18.50%	19.72%	19.73%	12.20%
40-44	LA1	25%	16.28%	12.60%	15.09%	14.77%	12.70%

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## OVERVIEW OF ACTIVITIES

### 6.6 SUSTAINABLE DEVELOPMENT

	GRI	Global Gas & LNG Business Line			Infrastructures Business Line		
		2006	2007	2008	2006	2007	2008
45-49	LA1	14.29%	23.26%	11.30%	11.75%	12.71%	21%
50-54	LA1	0%	2.33%	9.80%	13.90%	12.09%	24.70%
55-59	LA1	3.57%	2.33%	6.30%	8.51%	9.92%	5.60%
60-64	LA1	0%	0%	0.40%	0.75%	0.52%	0.10%
65 and over	LA1	0%	0%	0%	0%	0%	0%
% of reporting		1.61%	2.50%	36.20%	4.64%	5.41%	95.80%
Staff and employment movements							
Turnover	LA2	29.25%	5.60%	2.20%	2.74%	3.20%	-
% of reporting		1.72%	2.20%	2.60%	4.73%	5.70%	0%
Voluntary turnover ■	LA2	25.59%	3.28%	1.40%	2.53%	0.37%	0.10%
% of reporting		1.72%	100%	100%	4.73%	100%	100%
Entrance rate	LA2	8.66%	11.34%	13.70%	3.59%	3.72%	5.40%
% of reporting		100%	100%	100%	100%	100%	100%
Open-ended contract entrance rate	LA2	100%	100%	0%	58.82%	55.70%	-
% of reporting		1.72%	2.20%	2.60%	4.73%	5.70%	0%
% of disabled persons/avg. workforce				0%			0%
% of reporting							
Professional development							
% of workforce trained ■■	LA10	66.71%	72.15%	60.60%	85.05%	71.03%	54.60%
% of reporting		98.27%	100%	100%	99.66%	99.42%	100%
% of women trained	LA10	29.07%	28.17%	34.60%	16.69%	16.28%	16.60%
% of reporting		98.27%	97.58%	92.10%	99.66%	99.43%	95.30%
Proportion of managers and non-managers in trained workforce:	LA10						
Managers	LA10	57.14%	81.48%	70%	34.07%	28.40%	
Non-managers	LA10	42.86%	18.52%	30%	65.93%	71.60%	
% of reporting		1.69%	2.26%	2.60%	4.72%	5.68%	0%
Training costs per person (€)		2 578	2 851	2 243	1 359	1 471	
% of reporting		1.69%	2.21%	2.60%	4.72%	5.68%	0%
Number of training hours per trained person	LA10	51	186	38	42	42	37
% of reporting		1.69%	97.58%	100%	4.72%	99.43%	100%
Number of training hours per trained woman		28	36	36	0	36	29
% of reporting		1.69%	97.58%	92.10%	4.72%	99.43%	95.30%
Training costs per hour of training (€)		51	75	54	32	33	
% of reporting		1.69%	2.21%	2.60%	4.72%	5.68%	0%
Hours of training by subject							
Job techniques		59.12%	47.60%	26.80%	45.49%	51.50%	
Quality. Environment. Safety		3.57%	6.50%	1.20%	32.78%	27.20%	
Languages		35.06%	23.20%	69.40%	5.11%	5.10%	
Other		2.26%	22.70%	2.60%	16.63%	16.20%	

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	GRI	Global Gas & LNG Business Line			Infrastructures Business Line		
		2006	2007	2008	2006	2007	2008
% of reporting		1.72%	2.21%	2.60%	4.73%	5.68%	0%
Work conditions	LA7						
Days of absence per person			11	15.5		19	9.8
% of reporting			100%	85.50%		99.80%	99.39%
Overtime	LA7			0%			-
% of reporting				2.60%			0%
Occupational safety							
Number of accidental deaths (employees)* ■				0			1
* Note. in 2008: 1 accidental death at headquarters							
Frequency rate ■				0			5.01
Severity rate				0			0.28
% de restitution							

■ Moderate assurance.

■ Reasonable assurance.

	GRI	Energy Services Business Line			SUEZ Environment Company		
		2006	2007	2008	2006	2007	2008
Workforce by geographic zone ■■	LA1	74 324	75 166	77 883	57 446	61 915	65 382
France	LA1	38 864	39 166	40 483	29 318	31 289	32 835
Belgium	LA1	9 991	9 949	10 263	1 998	2 113	2 219
Other European Union	LA1	19 641	20 573	21 548	17 469	19 075	19 877
Other countries Europe	LA1	3 732	3 054	2 939	73	78	80
Total Europe	LA1	72 228	72 742	75 233	48 858	52 555	55 011
North America	LA1	8	10	11	2 553	2 704	3 250
South America	LA1	344	448	719	272	231	222
Asia – Middle-East – Oceania	LA1	1 744	1 966	1 920	2 498	3 060	3 381
Africa	LA1	0	0	0	3 265	3 365	3 518
% of reporting		100%	100%	100%	100%	100%	100%
Distribution of Employees by Socio-Professional Category	LA1						
Managers ■	LA1	9 692	10 340	11 295	7 091	7 766	8 358
Non-managers ■	LA1	55 352	57 055	58 474	50 325	54 149	57 024
% of reporting		87.50%	89.66%	89.58%	99.90%	100%	100%
Proportion of women in Group							
Proportion of women in workforce ■■	LA13	10.91%	11.30%	11.80%	17.98%	18.30%	18.20%
% of reporting		100%	100%	100%	99.90%	100%	100%
Proportion of women in management	LA13	11.16%	11.71%	13%	22.75%	23.89%	23.70%
% of reporting		87.50%	89.70%	89.55%	99.90%	100%	100%
Distribution of employees by type of contract	LA1						
Open-ended contract	LA1	92.82%	92.80%	92.60%	92.91%	92.10%	91.80%
Other	LA1	7.18%	7.20%	7.40%	7.10%	7.90%	8.20%
% of reporting		87.50%	94.30%	94.20%	99.90%	100%	100%

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## OVERVIEW OF ACTIVITIES

### 6.6 SUSTAINABLE DEVELOPMENT

	GRI	Energy Services Business Line			SUEZ Environment Company		
		2006	2007	2008	2006	2007	2008
Age pyramid, based on employees with open-ended contracts	LA1						
less than 25 years old	LA1	5.27%	5.70%	6.00%	4.05%	3.99%	4.20%
25-29	LA1	11.29%	11.80%	11.90%	9.32%	9.59%	9.70%
30-34	LA1	12.17%	12.30%	12.50%	13.40%	12.47%	11.90%
35-39	LA1	15.01%	14.50%	14%	16.42%	16.11%	15.80%
40-44	LA1	15.80%	15.70%	15.60%	17.68%	17.46%	17.20%
45-49	LA1	14.41%	14.20%	14.20%	15.19%	15.68%	15.90%
50-54	LA1	13.41%	13.30%	13%	12.60%	12.87%	13%
55-59	LA1	10.32%	9.90%	9.90%	8.61%	8.74%	8.90%
60-64	LA1	2.17%	2.40%	2.60%	2.35%	2.60%	2.90%
65 and over	LA1	0.16%	0.20%	0.20%	0.37%	0.46%	0.50%
% of reporting		87.51%	89.66%	88.20%	99.90%	100%	98.90%
Staff and employment movements							
Turnover	LA2	9.21%	9.50%	7.50%	8.92%	8.70%	8.40%
% of reporting		86.80%	87.20%	90.40%	99.94%	99.30%	99.50%
Voluntary turnover ■	LA2	6.63%	7.22%	5.90%	5.12%	5.72%	5.20%
% of reporting		86.80%	98.36%	100%	99.94%	99.33%	99.50%
Entrance rate	LA2	17.86%	19.63%	19.20%	16.61%	19.56%	19.50%
% of reporting		98.57%	98.36%	100%	99.94%	99.33%	99.50%
Open-ended contract entrance rate	LA2	60.49%	64.70%	56.40%	58.90%	59.60%	57.40%
% of reporting		86.80%	87.20%	90.40%	99.94%	99.30%	99.50%
% of disabled persons/avg. workforce				1.43%			1.46%
% of reporting							
<b>PROFESSIONAL DEVELOPMENT</b>							
% of workforce trained ■■	LA10	54.50%	55.97%	61.10%	58.58%	59.97%	57.20%
% of reporting		89.33%	89.98%	88.10%	99.91%	94.37%	99%
% of women trained	LA10	8.67%	8.78%	9.80%	17.84%	19.50%	19.70%
% of reporting		88.99%	89.98%	87.60%	99.83%	94.37%	100%
Proportion of managers and non-managers in trained workforce:	LA10						
Managers	LA10	15.33%	15.41%	15.90%	13.55%	16.52%	15.60%
Non-managers	LA10	84.67%	84.59%	84.10%	86.45%	83.48%	84.40%
% of reporting		77.59%	78.80%	78.50%	99.91%	94.37%	99%
Training costs per person (€)		711	763	1 068	704	890	820
% of reporting		77.59%	78.80%	78.50%	99.91%	94.37%	98.60%
Number of training hours per trained person	LA10	32	27	27	25	25	24
% of reporting		77.59%	89.98%	88.10%	99.91%	94.37%	99%
Number of training hours per trained woman		21	23	27	24	23	22
% of reporting		77.25%	89.98%	87.60%	99.83%	94.37%	100%
Training costs per hour of training (€)		22	28	39	28	35	34.7
% of reporting		77.59%	78.80%	78.50%	99.91%	94.37%	99.40%

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	GRI	Energy Services Business Line			SUEZ Environment Company		
		2006	2007	2008	2006	2007	2008
Hours of training by subject							
Job techniques		58.46%	46.10%	46%	29.80%	31.20%	31.10%
Quality, Environment, Safety		24.04%	30%	30.90%	38.50%	36.30%	39.70%
Languages		2.44%	3.60%	4.10%	8.20%	8.50%	6.40%
Other		15.06%	20.30%	19%	23.60%	24%	22.90%
% of reporting		77.59%	78.80%	78.50%	99.91%	94.37%	99.40%
Work conditions	LA7						
Days of absence per person			13	13.6		16	14.70
% of reporting			98.30%	100%		96.10%	99%
Overtime	LA7			2.49%			5.0%
% of reporting				90.40%			99.40%
Occupational safety							
Number of accidental deaths (employees)* ■				0			2
* Note. in 2008: 1 accidental death at headquarters							
Frequency rate ■				9.57			17.45
Severity rate				0.42			0.65
% of reporting							

■ Moderate assurance.  
 ■■ Reasonable assurance.

The merger of Gaz de France and SUEZ led to a comparative analysis of the two groups' sets of standard indicators. A project to restructure the Group's corporate reporting was carried out in the last quarter of 2008 in collaboration with the Business Lines with a view to having a single, shared reporting system for GDF SUEZ, to be launched at the end of the first quarter of 2009 on the Magnitude financial consolidation tool.

In the mean time, the Group has decided to maintain the two sets of standard indicators: the "Group Corporate Reporting Manual" for the former Gaz de France scope and the "Guide to Indicators" for the former SUEZ scope for the end of the 2008 year, and to carry out certain restatements in order to publish consistent data.

As in previous fiscal years, the specialized services of the Statutory Auditors were at the forefront of a project to verify selected company indicators common to the new Group and published by GDF SUEZ. The Statutory Auditors' opinion relates only to data consolidated at Group level, published in 2008.

Issuing from the work carried out on entities' sites and at the head offices of the Business Lines and the Group, the recommendations made in 2007 have enabled GDF SUEZ to undertake a variety of actions.

## 1 Tools Used

For the 2008 company data, the two financial consolidation software products, Acropole for Gaz de France and Magnitude for SUEZ, were used.

These two software products collect, process, and report the data entered by local legal entities that are subsidiaries of the GDF SUEZ Group.

Each company, including those in the HRD phase, is dealt with according to the following financial consolidation method: full consolidation (FC), proportional consolidation (PC), and equity affiliates (EA).

Analysis of the companies in this report deal exclusively with entities in the FC phase, in which GDF SUEZ controls both capital and management.

Once a company is included in GDF SUEZ's financial statements as fully consolidated, its company data is completely integrated, regardless of the amount of the company's capital owned.

## 2 Scope of reporting

The scope of reporting is attached to each indicator, corresponding to the coverage of the indicator as a percentage of the Group workforce (workforce of companies fully consolidated in the GDF SUEZ financial statements).

# 6

## OVERVIEW OF ACTIVITIES

### 6.6 SUSTAINABLE DEVELOPMENT

Some companies may not have sent their data, or there may be some inconsistencies in the data provided. This will cause us to exclude the data in question from the scope of reporting.

Certain low percentages in relation to reporting of indicators are due to the fact that certain indicators are still not requested from all of the Group. Harmonization of Group Corporate Reporting will not take effect until 2009.

### 3 Methods for the consolidation of indicator

The quantitative corporate data in this report comes from the Group's financial consolidation software. After collection, it was processed and consolidated according to clearly defined procedures and criteria.

Structural data, workforce flow, working conditions, training and safety data were consolidated by aggregation.

The following should be noted regarding the data published in this Reference Document:

1. the total number of employees in the Business Lines is 3,372 persons less than the published number of total employees. This difference is due primarily to the number of employees at headquarters in Paris and Brussels and to the number of employees in financial sector activities who are not attached to one of the six operational Business Lines;
2. in order to harmonize the concept of workforce, the "workforce under work/study contracts and interns" indicator has been added to the workforce of the former Gaz de France. There is an immaterial difference on interns present at December 31, 2008 and employees with suspended contracts (800 employees);  
  
The same restatement was carried out for the female workforce;
3. indicators for 2006 and 2007 were re-calculated as far as possible to give current Group pro-forma figures. The low rate of return for certain indicators is due to the unavailability of data for the periods in question;

4. in the categorization of the workforce by socio-professional category, administrative employees are accounted for with the senior technicians and supervisors for greater consistency;
5. although it is a core feature of business culture in France, the French concept of "cadres" (managers) is sometimes difficult to understand in other countries where GDF SUEZ is present. This can lead to a slight underestimation of the number of managers because some entities may take only their director-level management into account;
6. the employee turnover indicator only takes account of terminations and resignations. It is calculated from yearly movements compared with the average staffing level;
7. given the time lags, data for training is not always finalized and therefore relates to the most recent finalized period and a prediction of end-of-year workforce and training;
8. as regards the number of disabled people, the figures given represent the total number of declared disabled employees in relation to the number of employees for the Business Line concerned at the end of the period;  
  
These figures provide the best information possible on the integration of handicapped people into the companies of GDF SUEZ. We do not consider it relevant to provide a scope definition for this indicator;
9. the scope of health and safety reporting differs marginally from that of corporate reporting:
  - data from entities acquired by SUEZ Environnement Company is integrated three years after their acquisition,
  - reporting does not include results from fully consolidated subsidiaries where the reliability of these results has not been proven.

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# 7

## ORGANIZATION CHART

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<b>7.1 SIMPLIFIED ORGANIZATION CHART</b>	<b>146</b>	<b>7.2 LIST OF MAJOR SUBSIDIARIES</b>	<b>147</b>

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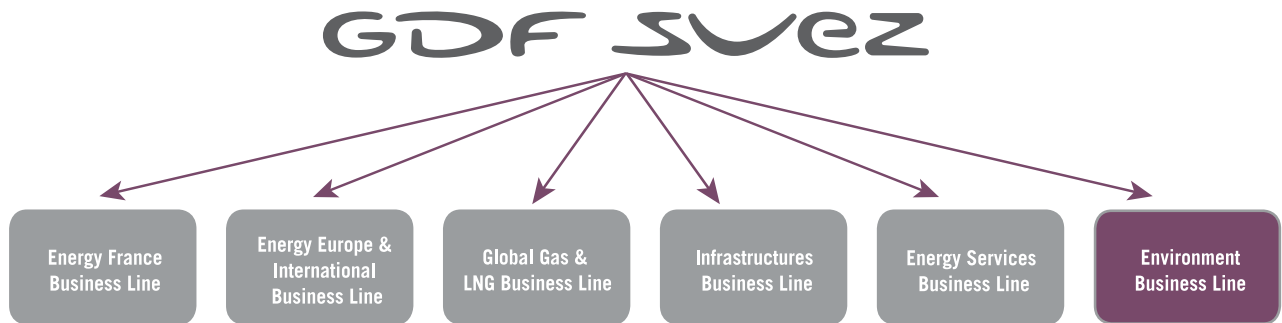
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## ORGANIZATION CHART

### 7.1 SIMPLIFIED ORGANIZATION CHART

## 7.1 SIMPLIFIED ORGANIZATION CHART

GDF SUEZ is organized into 5 “energy” business lines and one “environment” business line.



- the Energy France Business Line operates in France, ensuring gas and electricity procurement, electricity production and the provision of energy services to individuals.
- the Energy Europe & International Business Line (broken down into 3 geographical divisions: Benelux-Germany; Europe; International) produces electricity outside France and distributes and supplies gas and electricity outside France.
- the Global Gas and LNG Business Line is in charge of the exploration and production of gas and fuel, the procurement and transport of gas and LNG, energy trading activities and the supply of large accounts in Europe.

- the Infrastructures Business Line builds and operates major transport infrastructures for natural gas in France, Austria and Germany, regasification terminals in France and Belgium and the distribution network in France and coordinates storage activities in France and abroad.
- the Energy Services Business Line manages urban networks in France and abroad, oversees energy, industrial and service facilities and provides a full range of technical services.
- SUEZ Environnement ensures water, sanitation and waste management services and water treatment engineering.

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## 7.2 LIST OF MAJOR SUBSIDIARIES

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See Chapter 20.2 – note 30.

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## ORGANIZATION CHART

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# 8

## REAL ESTATE, FACTORIES, AND EQUIPMENT

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## 8.1 MAJOR TANGIBLE ASSETS

The Group either owns or rents a significant number of real estate properties, facilities, and plants around the world, most of which are in Europe. Numerous Group activities involve the operation of very large plants that are not owned by the Group.

As of December 31, 2008, the Group operated electrical power plants, gas terminals and storage facilities in over 30 countries.

The tables below show the main facilities currently in operation, either wholly or partially owned by the Group. Information on leased property is presented in Chapter 20.2, Notes 20 and 21.

### ● ELECTRICAL POWER PLANTS (>400 MW)

Country	Site/business	Total Capacity (MW)	Business
Bahrain	Al Ezzel	954	Natural gas power plant
	Al Hidd	938	Cogeneration
Belgium	Doel	2,759	Nuclear power plant
	Tihange	2,485	Nuclear power plant
	Amercoeur	547	Thermal power plant
	Coo	1,164	Pumping facility
	Drogenbos	538	Thermal power plant
	Herdersbrug	463	Thermal power plant
	Kallo	522	Thermal power plant
	Langerlo-Genk	602	Thermal power plant
	Rodenhuize	530	Thermal power plant
Brazil	Ruien	879	Thermal power plant
	Cana Brava	450	Hydroelectric power plant
	Ita	1,450	Hydroelectric power plant
	Machadinho	1,140	Hydroelectric power plant
	Salto Osório	1,074	Hydroelectric power plant
	Salto Santiago	1,420	Hydroelectric power plant
Chile	Jorge Lacerda	773	Thermal power plant
	Electroandina	938	Thermal power plants
United Arab Emirates	Mejillones	556	Thermal power plants
	Taweelah	1,360	Natural gas power plant
Spain	Cartagena	1,199	Natural gas power plant
	Castelnou	790	Natural gas power plant
France	CNR	2,937	Hydroelectric power plants
	Cycofos	422	Natural gas power plant
	DK6 (Dunkerque)	788	Natural gas power plant
	SHEM	773	Hydroelectric power plants
United States	Astoria	575	Natural gas power plant
	Astoria	575	Natural gas power plant
	Red Hills	1,186	Thermal power plant
	FirstLight	1,442	Hydroelectric, gas and other power plants
	Hot Spring	746	Natural gas power plant
Hungary	Wise County Power	746	Natural gas power plant
Italy	Torre Valdaliga	1,444	Thermal power plant
	Vado Ligure	1,369	Thermal power plant

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Country	Site/business	Total Capacity (MW)	Business
Oman	Al-Rusail	665	Natural gas power plant
	Barka II	410	Natural gas power plant
	Sohar	586	Cogeneration
Netherlands	Bergum	664	Thermal power plant
	Eems	2,456	Thermal power plant
	Gelderland	590	Thermal power plant
Poland	Polaniec	1,654	Thermal power plant
United Kingdom	Teesside	1,875	Natural gas power plant
Singapore	Senoko	3,195	Thermal and gas power plants
Thailand	Bowin	713	Natural gas power plant
	Glow	991	Cogeneration
Turkey	Ankara BOO	763	Natural gas power plant

● UNDERGROUND STORAGE OF NATURAL GAS

Country	Localisation
France	Gournay-sur-Aronde (Oise)
France	Saint-Clair-sur Epte (Val d'Oise)
France	Germigny-sous-Coulombs (Seine-et-Marne)
France	Beynes (Yvelines)
France	Saint-Illiers-la-Ville (Yvelines)
France	Soing-en-Sologne (Loir-et-Cher)
France	Chémery (Loir-et-Cher)
France	Céré-la-Ronde (Indre-et-Loire)
France	Cerville (Meurthe-et-Moselle)
France	Etrez (Ain)
France	Tersanne (Drôme)
France	Manosque (Alpes de Haute Provence)
Germany	Reitbrook
Germany	Fronhofen
Germany	Peckensen Phase 1
Germany	Schmidhausen
Germany	Berlin Grünwald
Canada	Pointe du Lac
Canada	Saint-Flavien
Slovak Republic	Lab IV
Romania	Amgas
Romania	Depomures
Belgium	Lohenhout

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## REAL ESTATE, FACTORIES, AND EQUIPMENT

### 8.2 ENVIRONMENTAL ISSUES RELATED TO REAL-ESTATE HOLDINGS

● GAS TERMINALS

Country	Location	Total capacity
France	Montoir-de-Bretagne	10 Gm <sup>3</sup> (n)/year
France	Tonkin (Fos/Mer)	7 Gm <sup>3</sup> (n)/year
Belgium	Zeebrugge	9 Gm <sup>3</sup> (n)/year
United States	Everett	7 Gm <sup>3</sup> (n)/year

## 8.2 ENVIRONMENTAL ISSUES RELATED TO REAL-ESTATE HOLDINGS

See Paragraph 6.6.2.

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## 9

MANAGEMENT REPORT <sup>(1)</sup>

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(1) Unless otherwise indicated, all data are based on the consolidated financial statements prepared in accordance with IFRS.

This report has been drawn up for financial years ended December 31, 2007 and 2008 as though the merger between Gaz de France and SUEZ had occurred on January 1, 2007 and January 1, 2008, respectively. Information concerning the consolidated income statement and cash flows is based on non-audited pro forma financial data. The pro forma information and its basis of preparation is presented in section 20.4 of the 2008 Reference Document.

The main reconciliations between pro forma financial data and data published in the consolidated financial statements are presented in section 4 of this management report.

The Group's performance continued on an upward trend in 2008, with EBITDA (up 10.7%) outpacing the Group's performance targets for the year. Growth in current operating income came in at 9.4%. These indicators registered even stronger gains on an organic basis, up 12.5% and 12.6%, respectively.

Pro forma net income Group share totaled €6,504 million. This strong achievement (including the impact of the remedies) reflects the Group's operating performance and also the large capital

gains generated on sales carried out as required by the European Commission in connection with the merger.

Pro forma cash generated from operations before income tax and working capital requirements rose 6.7% year-on-year to €13,287 million, while net investments in 2008 totaled €11.8 billion. After a dividend payout of €5.1 billion and share buybacks for €1.7 billion, net debt at end-2008 came in at €28.9 billion, representing 46% of equity.

On account of the Group's sparkling performance and outlook going forward, on March 4, 2009 the Board of Directors decided to distribute a full-year dividend of €1.40 per share for 2008 (up 11.1% compared to 2007). An interim dividend of €0.80 was paid out of this amount on November 27, 2008. At the same meeting, the Board of Directors also has decided to distribute an exceptional dividend of €0.80 per share.

## 9.1 REVENUE AND EARNINGS TRENDS

<i>Pro forma data, in millions of euros</i>	2008	2007	% change (reported basis)
Revenues	83,053	71,228	16.6%
EBITDA	13,886	12,539	10.7%
Depreciation and amortization of PPA (*)	(479)	(662)	
Depreciation, amortization and provisions	(4,406)	(3,695)	
Net expenses under concession contracts	(241)	(235)	
Share-based payment	(199)	(123)	
Current operating income	8,561	7,824	9.4%

(\*) Purchase Price Allocation, measurement at fair value of Gaz de France assets and liabilities acquired as part of the merger (see section 20.4 of the Reference Document)

The Group enjoyed sustained growth in 2008, with revenues surging €11,825 million to €83,053 million, a rise of 16.6% or 17.5% on an organic basis compared with 2007. These results testify to the relevance and robustness of GDF SUEZ's business model. All business lines and geographical areas contributed to the growth momentum, which resulted mainly from:

- ongoing expansion in European and international gas and electricity markets;
- high, volatile market energy prices over the year;
- sustained commercial advances in energy services;
- continuing investments in infrastructures;
- business growth for the SUEZ Environnement Business Line.

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Revenues advanced €11,825 million on a reported basis, reflecting:

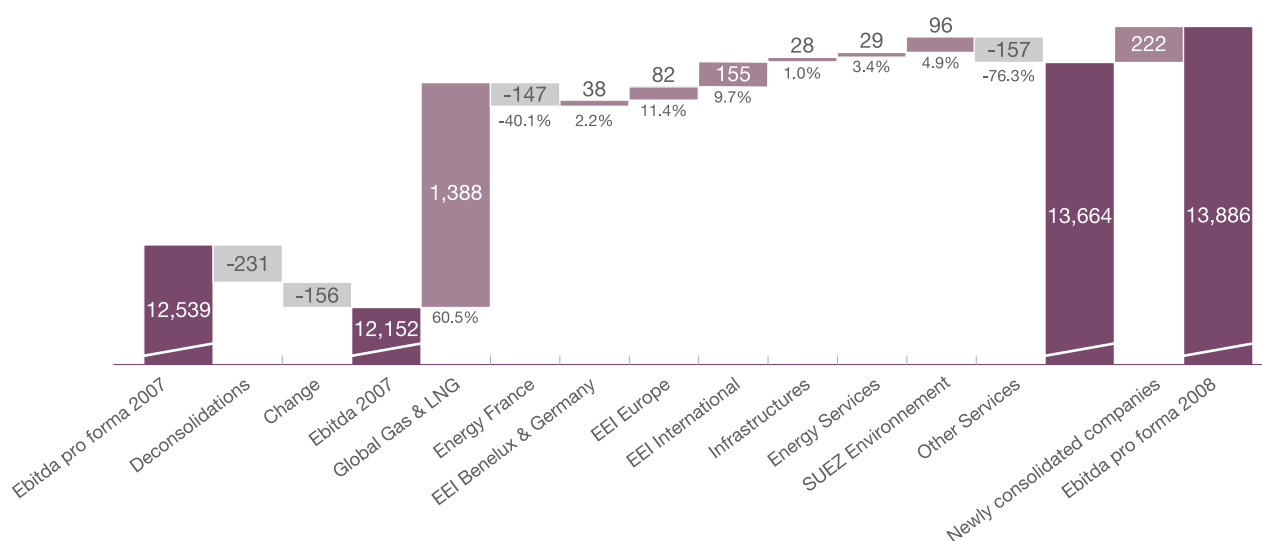
- organic growth of €12,074 million;
- a net positive impact of €747 million attributable to changes in Group scope of consolidation, including:
  - additions to the consolidated group (positive impact of €1,775 million), mainly in Energy Europe & International (€1,111 million, resulting from the acquisition of Teesside, the change in the accounting treatment for Italcogim Energie's commercial activities in Italy, and the acquisition of the Italian electricity trading company Elettrogreen), SUEZ Environnement (€337 million) and Energy Services (€319 million, following the acquisition of six 370 MW cogeneration plants in Italy),
  - departures from the consolidated group (negative impact of €1,027 million), concerning mainly SUEZ Environnement (€388 million, chiefly owing to the sale of Applus in 2007), Energy Europe & International (€377 million, due to the equity-accounting of Gasag as of January 1, 2008 and the sale of Calidda in Peru and Chehalis in the US), and Energy Services (€262 million on the sale of Cofathec ADF in France in 2008);
- exchange rate fluctuations (negative impact of €997 million including €364 million on the US dollar and €515 million on the pound sterling), mainly for Energy Europe & International (negative impact of €623 million) and SUEZ Environnement (negative impact of €254 million).

The Group generates 92% of its revenues in Europe and North America, including 86% in Europe.

All business lines yielded significant contributions to organic growth:

- the Energy France Business Line (up 16.3%) benefited from higher energy prices and more favorable weather conditions than in 2007;
- the Energy Europe & International Business Line (up 21.6%) received a boost from the rise in energy prices on its various markets, the Group's strong sales momentum across all areas targeted for international development, and the expansion of electricity production capacity;
- the Global Gas & LNG Business Line (up 35.7%) was bolstered by the growth in output for Exploration & Production activities, robust LNG arbitrage trading, a rise in sales of natural gas and the soar in average hydrocarbon prices;
- the Infrastructures Business Line (up 34.5%) saw sales on behalf of third parties expand amid more favorable weather conditions than in 2007;
- the Energy Services Business Line (up 8.8%) capitalized on advances in all of its markets, particularly France, Italy and all Tractebel Engineering divisions;
- the SUEZ Environnement Business Line (up 5.6%) delivered vigorous organic growth, in line with its 2008 guidance.

EBITDA jumped 10.7% to €13,886 million. Excluding the impact of changes in Group scope of consolidation and exchange rates, EBITDA advanced 12.5%.



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# 9

## MANAGEMENT REPORT

### 9.1 REVENUE AND EARNINGS TRENDS

Changes in Group scope of consolidation had a negative €9 million impact. Additions to the scope of consolidation during 2008 added €222 million to EBITDA, reflecting the first-time consolidation of Teesside in the UK and Ponte de Pedra in Brazil. Departures from the consolidated group represented €231 million and essentially concern the change of consolidation method for Gasag in 2008 (Benelux & Germany division) and the indemnities received in 2007 by Energy Services in relation to the Snöhvit contract.

Negative exchange rate impacts totaling €156 million are mainly attributable to the slide in the US dollar and the pound sterling.

Organic EBITDA growth came in at 12.5%, buoyed by high energy prices in 2008.

- the Energy France Business Line (down 40.1%) benefited from favorable market prices for electricity production, but was hard hit by an inability to pass on in full natural gas supply costs to regulated rates in France;
- the Energy Europe & International Business Line (up 6.8%) enjoyed benign market conditions, particularly in the International division where the LNG business in North America and the Electricity business in Brazil led the growth push. Energy Europe also benefited from the full-year impact of the electricity plants commissioned in Italy;
- the Global Gas & LNG Business Line (up 60.5%) was the main beneficiary of the benign energy climate for its Exploration & Production and LNG activities. EBITDA for the business was boosted by higher production volumes recorded by the Exploration & Production activity and by stronger gas sales;

- the Infrastructures Business Line (up 1.0%) was boosted by rate increases in its Distribution and Storage activities, as well as by a rise in transmission and storage capacities sold and more favorable weather conditions. However, year-on-year figures were penalized by non-recurring items boosting results in 2007;
- the Energy Services Business Line (up 3.4%) capitalized on business growth and ongoing operational gains in most business units;
- the SUEZ Environnement Business Line (up 4.9%) posted advances in each of its activities. The International and Water Europe segments were the top performers, powered by positive price impacts and an increase in volumes. European waste services continued to deliver growth, but began to feel the pinch of the economic slowdown and the collapse in metals prices for recycling activities.

**Current operating income climbed 9.4%** to €8,561 million in 2008. Excluding changes in Group scope of consolidation and exchange rates, organic growth in current operating income was 12.6%, led mainly by operating items affecting EBITDA. The growth momentum was curbed slightly by the increase in net additions to depreciation, amortization and provisions linked to the commissioning of new facilities, a net increase in impairment losses taken on trade receivables, and an increase in expenses in connection with employee share awards. Growth in current operating income was also penalized by non-recurring items particularly the reversal of a provision recorded by Energy Europe & International in 2007.

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## 9.2 BUSINESS TRENDS

### 9.2.1 ENERGY FRANCE

#### Financial indicators

<i>(Pro forma data, in millions of euros)</i>	2008	2007	% change (reported basis)
Revenues	14,457	12,368	16.9%
EBITDA (a)	246	368	-33.1%
Depreciation, amortization and provisions (b)	(153)	(170)	
Net expenses on stock options (c)	(1)		
<b>CURRENT OPERATING INCOME = A + B + C</b>	<b>92</b>	<b>198</b>	<b>-53.6%</b>

#### Volumes sold

<i>In TWh</i>	2008	2007	% change
Gas sales	294	289	+2%
Electricity sales	31.8	28.4	+12%

#### Climate correction – France

<i>In TWh</i>	2008	2007	% change
Climate correction volume (negative sign = warm climate, positive sign = cold climate)	+0.4	-14.2	14.6 TWh

Energy France delivered **revenues** of €14,457 million for 2008, up 16.9% on 2007.

Revenue growth based on average weather conditions for the period came in at 12%. The rise in energy prices, in line with the surge in procurement costs, accounts for three-quarters of this increase.

Advances in volumes sold, thanks to weather conditions close to the benchmark average in 2008, accounted for 20% of revenue growth for the business.

Other factors driving growth stem from changes in Group scope of consolidation to partner the Group's expansion into wind power and energy services for individual customers. Development in this last segment picked up pace in 2008, with GDF SUEZ having captured around 10% of the French market of home photovoltaic solutions.

Sales of natural gas totaled 294 TWh, a rise of 1.6% year-on-year. GDF SUEZ continues to hold around 95% of the retail customer market and around 85% of the business market. These markets were deregulated in 2007 and 2004, respectively.

Electricity sales climbed 12% to 32 TWh. Sales performance was varied depending on the customer segment concerned: sales to retail and wholesale markets rose, while sales to industrial customers declined amid difficult price conditions. Since the deregulation of retail markets, the Group has added almost 600,000 new customers to its portfolio, including 400,000 since end-2007. Electricity production edged up 6% on an annualized basis due to the combined impact of:

- an increase in output at hydraulic power plants and the DK6 combined cycle plant in Dunkerque;

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- expansion in wind power production, on both an organic basis and through the consolidation of companies acquired in 2007 and 2008 (Compagnie du Vent, Eole Génération, Erelia, Great and Eolienne de la Haute-Lys).

**EBITDA** retreated €122 million due to insufficient rises in public gas distribution rates, prompting a €679 million increase in the revenue shortfall and bringing the cumulative total to €1,606 million at December 31, 2008. The failure to pass on the 8.6% rise in commodity prices at October 1, 2008 accounted for a significant portion of the €442 million shortfall reported in the last quarter.

The revenue shortfall was only partially offset by the results of the electricity business, and in particular hydraulic activities carried out by CNR, which received a strong boost from the rise in energy prices, and to a lesser extent, the growth in volumes sold. Hydro conditions were more favorable than in 2007.

**Price trends**

**Public distribution rates**

The table below shows the average change in public distribution rates adopted in 2007 and 2008.

Year	Average level of rate change
2008	
January 1	€1.73 per MWh
April 30	€2.64 per MWh
August 15	€2.37 per MWh
October 1	- € per MWh

Public distribution rates did not change in 2007.

**Subscription rates**

Subscription rates are revised quarterly to account for any changes in the euro/dollar exchange rate and the price of a portfolio of oil products.

Year	Average level of rate change
2007	
January 1	- €2.85 per MWh
April 1	- €1.63 per MWh
July 1	€1.72 per MWh
October 1	€2.11 per MWh
2008	
January 1	€2.90 per MWh
April 1	€2.22 per MWh
July 1	€3.91 per MWh
October 1	€4.00 per MWh

**Current operating income** for Energy France was down €106 million on 2007. The fall in depreciation and amortization charged in 2008 relative to the allocation of the cost of the business combination (reflecting fewer economic benefits generated by public distribution activities) more than offset the rise in additions to depreciation and amortization (changes in Group structure and new plants commissioned) and provisions set aside in respect of gas and electricity customers.

New versions of "Symphonie", the retail customer management software, were rolled out in 2008. The Symphonie upgrades helped improve the operation of customer applications and processes, and led to new offerings such as the energy-efficient DolceVita package (green electricity and carbon-offset natural gas) and new web functionalities such as electronic billing.

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## 9.2.2 ENERGY EUROPE & INTERNATIONAL

### 9.2.2.1 Key figures

Pro forma data, in millions of euros	2008				2007				% change (reported basis)
	Benelux & Germany	Europe	International	Total	Benelux & Germany	Europe	International	Total	
Revenues	14,156	8,749	7,623	30,528	11,907	6,609	6,682	25,198	21.2%
EBITDA (a)	1,752	844	1,799	4,395	1,796	709	1,673	4,178	5.2%
Depreciation, amortization and provisions (b)	(553)	(331)	(394)	(1,277)	(311)	(253)	(381)	(945)	
Net expenses on concessions/stock options (c)	(12)	(1)	(8)	(21)	(9)		(6)	(15)	
<b>CURRENT OPERATING INCOME = A + B + C</b>	<b>1,187</b>	<b>513</b>	<b>1,397</b>	<b>3,096</b>	<b>1,477</b>	<b>456</b>	<b>1,286</b>	<b>3,218</b>	<b>-3.8%</b>

### 9.2.2.2 Benelux & Germany division

**Revenues** for the Benelux & Germany division came in at €14,156 million in 2008, up 18.9% on a reported basis and 22.2% stripping out changes in exchange rates and Group structure.

The negative €317 million impact of changes in Group structure results from the change in consolidation method for Gasag, a gas distribution subsidiary in Germany. Gasag was proportionately consolidated in previous years, but has been accounted for by the equity method since January 1, 2008.

**Electricity sales** in Benelux and Germany totaled €9,632 million in 2008, versus €8,109 million for the year-earlier period, representing a surge of 18.8% on an organic basis.

In Belgium and Luxembourg (Belux), electricity sales advanced 16.9% year-on-year, owing to changes in electricity market prices powered by the rise in the price of fossil fuels. Selling prices in Belgium also reflect the rise in transmission and distribution rates.

Volumes sold to the Belux region dropped 4% (74.1 TWh in 2008 versus 77.2 TWh in 2007), squeezed by the fall in sales to distributors in Belgium and the impacts of the economic slowdown in the last quarter of 2008.

Sales of electricity in the Netherlands and Germany advanced 21.3% on 2007, boosted by price increases as well as the rise in volumes sold, particularly in the Netherlands (up 4.8% to 23.3 TWh in 2008).

**Gas sales** brought in €3,414 million in 2008 versus €2,764 million a year earlier. This represents organic growth of 23.5%, powered mainly by the rise in gas prices and more favorable weather conditions than in 2007. Volumes sold nevertheless retreated 1.6 TWh or 2.1% for the region as a whole, chiefly sales to industrial

customers in the Netherlands, while volumes sold in Belgium and Germany were up over the year-earlier period.

**EBITDA** for the division came in at €1,752 million, a rise of 2.2% on an organic basis compared with 2007. On a reported basis, EBITDA edged back 2.5% compared with 2007, with year-on-year figures dented by the change in the consolidation method for Gasag.

Capacity availability at power plants declined year-on-year owing to a more extensive stoppages program than in 2007 as well as a greater number of unplanned stoppages. This prompted a fall of 5 TWh in production.

Thanks to Electabel's hedging policy covering trailing three-year periods and the gradual transfer of market prices onto average prices, electricity rates continued on their upward spiral in 2008.

However, margin growth was held back by the rise in the price of fossil fuel and CO2 certificates for coal and gas facilities.

**Current operating income** for the Benelux & Germany division shed 15.8% on an organic basis, down to €1,187 million. Performance in 2008 was penalized by a write-back of Electrabel's nuclear waste processing provision in 2007 resulting from the review it carried out in light of the Monitoring Committee's decision of March 2007. The next review of the assumptions used to calculate provisions for nuclear waste reprocessing and decommissioning liabilities is scheduled for 2010. Current operating income was also hit by a rise in provisions for trade receivables compared with 2007, and an increase in depreciations on production facilities.

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9.2.2.3 Europe division

This division delivered **2008 revenues** of €8,749 million, up 32.4% on a reported basis compared with 2007.

The revenue surge reflects the impact of changes in Group scope of consolidation, with the acquisition of Teesside, a combined cycle gas turbine plant in the UK and Elettrogreen, engaged in the sale and optimization of energy in Italy. It also reflects the increase in the Group's stake in Italcogim Energie, which was fully consolidated as from the last quarter of 2007.

The division's vigorous 23.8% organic revenue growth momentum was powered by:

- a rise in market prices across the region, partly countered by a failure to fully pass on gas supply costs in countries imposing regulated rates;
- additional electricity production capacity in Italy, with 800 MW having come on stream in 2007;
- significant 3.2 TWh growth in electricity generation in Spain, buoyed by weather, hydraulic and market conditions that were favorable to the Group.

**EBITDA** for the division came in at €844 million in 2008, up 19.1% on a reported basis. Organic EBITDA growth was 11.4%, boosted by the positive impacts described below:

- Italian subsidiaries were the largest contributors to the division's organic growth gains, and benefited from the full-year impact on electricity businesses of plants commissioned, as well as good performances on the ancillary services market. To a lesser extent, growth was also bolstered by a more benign pricing environment than in 2007;
- In Spain, favorable weather conditions prompted capacity increases at power plants. However, these were offset by higher CO2 costs in 2008;
- In Eastern Europe, EBITDA dipped slightly, with the favorable pricing environment for electricity in Poland offset by a drop in CO2 sales. Gas sales were held back – notably in Romania and Slovakia – by tight pricing conditions and a failure to fully pass on gas supply costs to selling prices.

**Current operating income** for the division after depreciation and amortization charged relative to the allocation of the cost of the business combination totaled €513 million, up €38 million or 8.1% on an organic basis. These operating results were boosted by the factors driving EBITDA growth, offset by the revision of the useful life of SPP's assets in 2007 and the full-year impact of new plants commissioned in Italy.

9.2.2.4 International division

Revenues for the International division totaled €7,623 million in 2008, up 14.1% over 2007 on a reported basis and 18.4% stripping out changes in exchange rates and Group structure.

This performance draws on the Group's strong commercial momentum in all of its developing international markets, amid a spike in energy demand and rising prices.

The division's organic growth stems more specifically from:

- North America (up €638 million), essentially due to the rise in direct energy sales to industrial and business customers (up €319 million), sales to the wholesale market (up €125 million) reflecting mainly higher prices, and the growth in LNG activities boosted by a strong price impact (up €85 million);
- Asia and the Middle East (up €183 million), spurred by improved sales in Turkey (up €111 million), price increases in Thailand (up €36 million) and the Group's expanding presence in the Gulf region, with the first full-year contribution of the Sohar plant in 2008;
- Latin America (up €329 million). The rise in electricity sales in Brazil (up €88 million) was powered by price increases on bilateral contracts and a rise in sales on the spot market, where Tractebel Energia benefited from its guaranteed energy allocation strategy and particularly steep prices in the first quarter. Sales gains in Peru (up €95 million) and Chile (up €132 million) mainly reflect positive price impacts, while sales in Panama (up €13 million) were boosted by the commissioning of additional capacity (Balboa plant in August 2008).

Excluding the negative €68 million exchange rate impact (chiefly on the US dollar) and the positive €38 million impact of changes in Group structure (related mainly to the acquisitions of Ponte de Pedra in Brazil and Senoko in Singapore), **EBITDA** climbed €155 million, or 9.7% on an organic basis:

- Latin America turned in the best organic growth performance (up 14.7%), on the back of robust advances in Electricity activities in Brazil (up 12.7%) which were able to benefit from steep spot market prices in the first quarter on account of the guaranteed energy allocation strategy. Electricity activities in Peru reported strong gains (up 26.4%), thanks mainly to the commissioning of the OCP2 plant in July 2007 (174 MW). Electricity activities in Chile posted stellar 80% growth, driven by a hike in electricity selling prices on the market;
- North America delivered 11.6% organic growth, led by GDF SUEZ LNG North America (up 47.7%) and a rise in margins after hedging;

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- EBITDA for Asia and the Middle East region shed 5.5% on an organic basis, due mainly to a 21.7% decline in Thailand which was affected by a rise in fuel prices not fully passed on to rates.

**Current operating income** for the International division came in at €1,397 million, up 8.6% on a reported basis. Stripping out the negative €30 million impact of changes in exchange rates and Group structure, organic growth came in at €141 million, or 11.4%, buoyed by the sharp rise in EBITDA.

### 9.2.3 GLOBAL GAS & LNG

<i>Pro forma data, in millions of euros</i>	2008	2007	% change (reported basis)
Business line revenues	22,394	17,284	29.6%
Revenue contribution to Group	10,827	8,096	33.7%
EBITDA (a)	3,715	2,344	58.4%
Depreciation, amortization and provisions (b)	(1,363)	(1,155)	
<b>CURRENT OPERATING INCOME = A + B</b>	<b>2,352</b>	<b>1,189</b>	<b>97.7%</b>

Global Gas & LNG delivered **revenues** of €10,827 million for 2008, up 33.7% on a reported basis compared with 2007.

Total revenues for the Global Gas & LNG business line, including intragroup services, came in 29.6% higher year-on-year, at €22,394 million.

The contribution from Exploration & Production activities was €1,875 million, up 43% on an organic basis and 58% over the first nine months of the year. This chiefly reflects the upward spiral in average hydrocarbon prices up to the end of summer 2008:

- average Brent crude prices (€/boe) rose 23% over the year, versus 46% over the first nine months;
- average natural gas prices jumped 81% on the NBP (€/MWh) over the year, versus 106% over the first nine months.

The revenue performance was also driven by a 20% rise in production year-on-year, up to 51 MMBoe, essentially linked to the commissioning of new assets in the Netherlands and Norway.

Revenues for the business line's other entities<sup>(1)</sup> also improved, in step with:

- a spike in the price of hydrocarbons up to the end of summer 2008;
- vigorous LNG arbitrage trading over the year (48 cargoes for 38 TWh in 2008 versus 40 cargoes for 31 TWh in 2007), even though trading slowed significantly in the fourth quarter (5 cargoes versus 11 in fourth-quarter 2007);

- growth in sales of natural gas:
  - in France, key account sales (excluding sales to municipal distribution companies)<sup>(2)</sup>, climbed 9 TWh to 87 TWh,
  - in Europe, key account sales moved up 8 TWh to 82 TWh,
  - short-term and other sales (including sales to municipal distribution companies) advanced 8 TWh to 134 TWh.

**EBITDA** hit a new record high of €3,715 million, representing organic growth of 60.5% (excluding the negative €18 million impact of changes in exchange rates and Group structure). This sparkling performance is partly attributable to higher hydrocarbon prices but also to growth in gas production and sales.

- Exploration & Production reported 71.8% organic growth, outperforming growth for the business line as a whole. This was driven by a hike in gas and Brent crude prices and a gross 20% increase in production to 51 Mboe<sup>(3)</sup> thanks to new oil fields commissioned in Norway and the Netherlands;
- other Global Gas & LNG entities contributed to this bumper performance, posting strong 51.3% organic growth powered by favorable market conditions in Asia – enabling the business to capitalize on the LNG portfolio – and a 11% rise in key account sales.

**Current operating income** after depreciation and amortization charged relative to the allocation of the cost of the business combination surged 97.7% to €2,352 million on a reported basis. Organic growth in this indicator was €1,193 million, or 103.7% (excluding the negative €31 million impact of changes in exchange rates and Group structure), in line with the performance of EBITDA.

(1) Supply, LNG, key account sales and trading.

(2) Sales to municipal distribution companies in France totaled 8.6 TWh in 2008, compared with 7.8 TWh for the prior-year period.

(3) Million barrels of oil equivalent.

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9.2.4 INFRASTRUCTURES

<i>Pro forma data, in millions of euros</i>	2008	2007	% change (reported basis)
Business line revenues	5,498	5,142	6.9%
<b>REVENUE CONTRIBUTION TO GROUP</b>	<b>896</b>	<b>650</b>	<b>37.8%</b>
<b>EBITDA (A)</b>	<b>2,878</b>	<b>2,847</b>	<b>1.1%</b>
Depreciation, amortization and provisions (b)	(987)	(999)	
<b>CURRENT OPERATING INCOME = A + B</b>	<b>1,891</b>	<b>1,848</b>	<b>2.3%</b>

**Total revenues** for the Infrastructures business line, including intragroup services, came in 6.9% higher year-on-year, at €5,498 million on a pro forma basis.

The contribution of the business line to Group revenues was €896 million, up 37.8% on 2007.

This larger contribution is related mainly to the expansion in volumes transported by GrDF on behalf of third parties. Volumes increased 9.4 TWh year-on-year to 28.8 TWh, boosted by a return to average weather conditions.

Revenue growth was also powered by:

- the introduction of a new rate for accessing distribution infrastructure on July 1, 2008, increased by 5.6%;
- the rise in storage capacity subscribed by third parties (up 3.9 TWh) and in the average price of usable volumes as of April 1, 2008 (up 2.8%);
- the rise in reserved capacity on the transmission network in France, and the increase in the number of combined cycle gas turbine plants connected;
- the inclusion of German storage activities in the consolidated group.

**EBITDA** for the Infrastructures business line inched up 1.1% year-on-year, to €2,878 million.

Growth in EBITDA underperformed revenue growth mainly as a result of:

- higher charges: energy costs grew €58 million on the back of a price impact; IT costs were up €20 million owing to the roll-out

of new applications at GrDF inherent to the separation of its businesses; and spending on industrial safety and the promotion of the image of natural gas rose €20 million;

- significant non-recurring items which boosted 2007 comparative figures, for example a €53 million inventory surplus.

Recurring growth reflects a return to average weather conditions after particularly warm temperatures in 2007, price increases in distribution and storage, and additional transmission and storage capacity sold in respect of regulated rights.

Major events affecting the Infrastructures business line in 2008 were:

- the creation of LNG Terminals (Elengy) and Storage (Storengy) subsidiaries in France;
- delays in the Fos Cavaou LNG terminal, compounded by piping problems in February, which led to the terminal's scheduled commissioning date being pushed back to June 2009;
- start of work under the first phase of the gas storage project at the Stublach salt mine in the UK;
- acquisition by GRTgaz of an interest in Powernext and start-up of the natural gas exchange at the end of November.

**Current operating income** for the Infrastructures business line after depreciation and amortization charged relative to the allocation of the cost of the business combination totaled €1,891 million in 2008, up 2.3% on 2007 (pro forma).

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## 9.2.5 ENERGY SERVICES

<i>Pro forma data, in millions of euros</i>	2008	2007	% change (reported basis)	Change (excluding Snöhvit claim)
Revenues	13,993	12,893	8.5%	9.3%
<b>EBITDA (A)</b>	<b>904</b>	<b>946</b>	<b>-4.4%</b>	<b>5.9%</b>
Depreciation, amortization and provisions (b)	(272)	(283)		
Net expenses on concessions/stock options (c)	(46)	(39)		
<b>CURRENT OPERATING INCOME = A + B + C</b>	<b>586</b>	<b>624</b>	<b>-6.0%</b>	<b>8.7%</b>

Energy Services **delivered revenues** of €13,993 million for 2008, up 8.8% year-on-year on an organic basis.

**In France**, service activities (Elyo France and Cofathec Services) advanced €421 million (14.1%) on an organic basis. The increase reflects commercial development, more favorable weather conditions, and the rise in energy prices. All entities (Ineo, Endel, Axima, Seitha) reported vigorous expansion in installation and maintenance activities, with growth coming in at 4.9%. However, the slowdown in certain segments began to put the brakes on growth in the final quarter of 2008.

**In Belgium**, the installation and services activities reported a 7.1% advance.

The **Netherlands** enjoyed a strong order book and posted growth of €124 million, or 10.5%.

All **Tractebel Engineering** divisions (Nuclear, Energy, Infrastructures and International) reported double-digit organic growth. Overall organic growth for these activities came in at 18.9%.

Excluding France and Benelux, organic revenue growth was €128 million, or 8.8% in Southern Europe, led mainly by the Italian market. This was despite a drop in orders in Spain triggered by the property slump. Revenue growth in Northern European countries was 5.2%, buoyed by the development in Germany and the United Kingdom.

**EBITDA** came in at €904 million. Year-on-year comparisons are distorted by the €92 million claim related to the Snöhvit contract in 2007. Adjusted for Snöhvit, revenues climbed 3.4% on an organic basis, reflecting the growth in business and further operational improvements across most business units. Non-recurring items

in 2007 are also the reason why EBITDA growth underperformed revenue growth (see paragraph below regarding Electricity and Gas subsidiaries).

Service activities in France benefited from favorable price impacts and harsher weather conditions, while the increase in volumes boosted results for installation activities.

Thanks to its optimized structure, the Netherlands delivered organic growth in excess of 60%, with profitability levels nearing the standards of the profession.

Tractebel Engineering also reported vigorous 44% growth, fuelled by a high-quality order book and margin gains.

In Italy, inclement winter weather helped offset the decline in the pricing environment for utilities' cogeneration plants at the end of the year. The International South business unit reported organic growth of more than 6%.

Adjusted for non-recurring items relating to Société Monégasque d'Électricité et de Gaz pensions in 2007, organic growth for Electricity and Gas subsidiaries came in at 1.1% thanks to favorable price impacts, in particular the rise in Electricité de Tahiti rates over a six-month period.

**Current operating income** for the business line came in at €586 million versus €624 million in 2007 (which included €84 million in connection with the Snöhvit contract). Organic growth adjusted for this amount came in at 6.9%, outperforming the advance in EBITDA due notably to the reversal in 2008 of the remaining provisions for warranties relating to Snöhvit as well as higher risk provisions booked in 2007.

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9.2.6 SUEZ ENVIRONNEMENT

<i>Pro forma data, in millions of euros</i>	2008	2007	% change (reported basis)
<b>REVENUES</b>	<b>12,352</b>	<b>12,022</b>	<b>2.7%</b>
<b>EBITDA (A)</b>	<b>2,102</b>	<b>2,061</b>	<b>2.0%</b>
Depreciation, amortization and provisions (b)	(776)	(755)	
Net expenses on concessions/stock options (c)	(242)	(229)	
<b>CURRENT OPERATING INCOME = A + B + C</b>	<b>1,084</b>	<b>1,077</b>	<b>0.6%</b>

The SUEZ Environnement Business Line delivered €12,352 million <sup>(1)</sup> in **revenues**, up 2.7% on a reported basis and 5.4% excluding Applus. Negative exchange rate impacts totaling €254 million, recorded mainly on the pound sterling and the US and Australian dollars, represented 2.2% of the growth figure.

Organic revenue growth came in at €633 million, or 5.6% for 2008, stemming essentially from three business segments:

- the Water Europe segment (up €300 million) enjoyed robust revenue growth bolstered by positive price impacts and the development of new services despite falling water consumption in Europe;
- the Waste Europe segment (up €151 million) reported a rise in sorting and recycling activities in France and the UK, and in incineration activities in Belgium. However, the economic slowdown in the fourth quarter affected all activities dealing with industrial and business customers, while the recycling business had to contend with a significant drop in prices and volumes;
- the International segment advanced (up €177 million) thanks to engineering activities (Degrémont) and healthy performances from water services in Asia and waste services in Central Europe.

The SUEZ Environnement Business Line delivered organic **EBITDA** growth of €96 million, or 4.9%, resulting from:

- the Water Europe segment (up 6.2%), where Agbar benefited from favorable price impacts in Spain and Chile, but faced a slight contraction in water volumes sold and a small rise in healthcare claims. In France, the drop in volumes delivered was offset by favorable price trends, while Germany reported commercial gains;

- in France, the drop in volumes delivered is compensated for by the favorable evolution in prices while commercial gains were recorded in Germany;
- the Waste Europe segment (up 1.0%), which posted a more modest rise on the back of the economic slowdown. This led to a decline in volumes collected from industrial customers in Benelux and in landfill volumes in the UK. Commodity prices for the recycling business also tumbled in the UK, France and Benelux. Strong momentum in the waste treatment sector, mainly in France and Belgium, helped counter this subdued performance;
- the International segment (up 14.1%), which benefited from the full impact of rate cases obtained in the regulated sector in North America in 2007, strong momentum for waste services in Central Europe, the development of water activities in China, favorable electricity price trends in the Maghreb and Asia, and good progress on outstanding contracts at Degrémont;
- a slight contraction in the Other Services segment, which recorded a €10 million decline in organic revenues during the period mainly as a result of efforts to bolster the corporate structure of SUEZ Environnement in view of its new obligations as a listed entity.

**Current operating income** as reported by the SUEZ Environnement Business Line advanced 3.2% to €1,084 million in 2008 (excluding the impact of the disposal in November 2007 of Applus, which contributed €27 million to current operating income for that year) and €39 million, or 3.9% on an organic basis. The increase in current operating income was essentially driven by EBITDA gains.

(1) Based on the contribution to GDF SUEZ (taking into account transactions with other Group companies).

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### 9.2.7 OTHER SERVICES

<i>Pro forma data, in millions of euros</i>	2008	2007	% change (reported basis)
EBITDA (a)	(354)	(206)	-72.0%
Depreciation, amortization and provisions (b)	(56)	(50)	
Net expenses on stock options (c)	(130)	(73)	
<b>CURRENT OPERATING INCOME = A + B + C</b>	<b>(539)</b>	<b>(329)</b>	<b>-63.9%</b>

In 2008, **EBITDA** reported by the Other Services segment was affected by non-recurring personnel costs stemming from the settlement of a dispute with the payroll tax authorities regarding benefits in kind in the form of reduced energy prices. A provision had been booked for the full amount of this liability, which therefore

has no impact on **current operating income**. EBITDA was also squeezed by increased communication spending and the cost of the bonus share and stock option awards set up by the Group in 2007 and 2008.

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## 9.3 OTHER INCOME STATEMENT ITEMS

<i>Pro forma data, in millions of euros</i>	2008	2007	% change (reported basis)
Current operating income	8,561	7,824	9.4%
Mark-to-market on commodity contracts other than trading instruments	555	29	
Impairment of assets	(811)	(123)	
Restructuring costs	(187)	(24)	
Disposals of assets, net	84	415	
Income from operating activities	8,204	8,121	1.0%
Net financial loss	(1,611)	(903)	
Income tax expense	(1,765)	(1,331)	
Share in net income of associates	447	646	
<b>NET INCOME BEFORE IMPACT OF REMEDIES</b>	<b>5,275</b>	<b>6,534</b>	<b>-19.3%</b>
Remedies	2,141	301	
<b>NET INCOME</b>	<b>7,415</b>	<b>6,835</b>	<b>8.5%</b>
Minority interests	911	1,080	
<b>NET INCOME GROUP SHARE</b>	<b>6,504</b>	<b>5,755</b>	<b>13.0%</b>

**Income from operating activities** edged up 1.0% year-on-year to €8,204 million, despite the negative non-recurring impacts recorded in 2008, partially offset by the positive impact of mark-to-market.

Changes in the fair value of commodity derivatives recognized in accordance with IAS 32/39 had a positive €555 million impact on income from operating activities, compared with a positive impact of €29 million in 2007.

Income from operating activities was affected by impairment losses taken against assets for €811 million (€123 million in 2007) in order to reflect the mark-to-market of non-consolidated, listed investments, and by restructuring costs of €187 million chiefly concerning the reorganization of the Group's sites in the greater Paris region.

Disposal gains fell to €84 million in 2008, and mainly reflect the sale of the Chehalis power plant in the US. Disposal gains in 2007 primarily included Electrabel's sale of a portion of its interests in the Brussels and Walloon inter-municipal companies, Agbar's sale of Applus, and the disposal of various non-strategic listed investments.

**Net financial loss** for the year totaled €1,611 million in 2008 compared with €903 million in 2007, reflecting:

- a rise in the cost of net debt, up to €1,476 million in 2008 compared with €882 million one year earlier. This €594 million rise reflects a volume effect and interest rate impact of €361 million, as well as the impact of exchange rate fluctuations and hedging derivatives totaling €233 million;

- the €135 million decrease in the contribution from other financial income and expenses.

The **effective tax rate** raised up to 26.8% (versus 18.4% in 2007), due to the tax on nuclear activities payable by Electrabel in 2008 for €222 million, growth in Exploration & Production activities in Norway and the lack of tax savings arising on the bulk of the asset write-downs described above. Financial synergies during the year resulting from the merger (i.e., the utilization of tax loss carry-forwards from the SUEZ SA tax consolidation group) were broadly on a par with the deferred tax asset recognized in 2007 for €500 million.

**Share in net income of associates** fell €199 million compared with 2007, owing mainly to a €190 million fall in contributions from inter-municipal companies, which had benefited from non-recurring items in 2007, and particularly the gain on the disposal of TVD operations in the Walloon region.

The **Remedies** line presents the contributions to 2007 and 2008 income of the entities sold in connection with the Group's commitments to the European Commission as part of the merger. In 2008, this item also includes the capital gains recorded on the sale of these equity investments in an amount of €1,901 million.

**Minority interests** contracted by €169 million, due mainly to the public tender offer for Agbar shares which accounted for a decrease of €102 million.

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## 9.4 RECONCILIATION WITH CONSOLIDATED INCOME STATEMENT FIGURES

<i>In million of euros</i>	2008 pro forma	2008 consolidated	Difference
Revenues	83,053	67,924	15,129
EBITDA	13,886	10,053	3,832
<b>CURRENT OPERATING INCOME</b>	<b>8,561</b>	<b>6,224</b>	<b>2,338</b>

Consolidated **revenues** for 2008 totaled €67,924 million. The difference with regard to pro forma revenues results chiefly from the revenues generated by Gaz de France prior to the merger (€17,844 million), less the contribution from entities sold in connection with the remedies (€2,395 million).

Pro forma **EBITDA** also includes €3,888 million in EBITDA reported by Gaz de France prior to July 22, 2008, which explains the bulk of the difference with EBITDA reported in the consolidated financial statements.

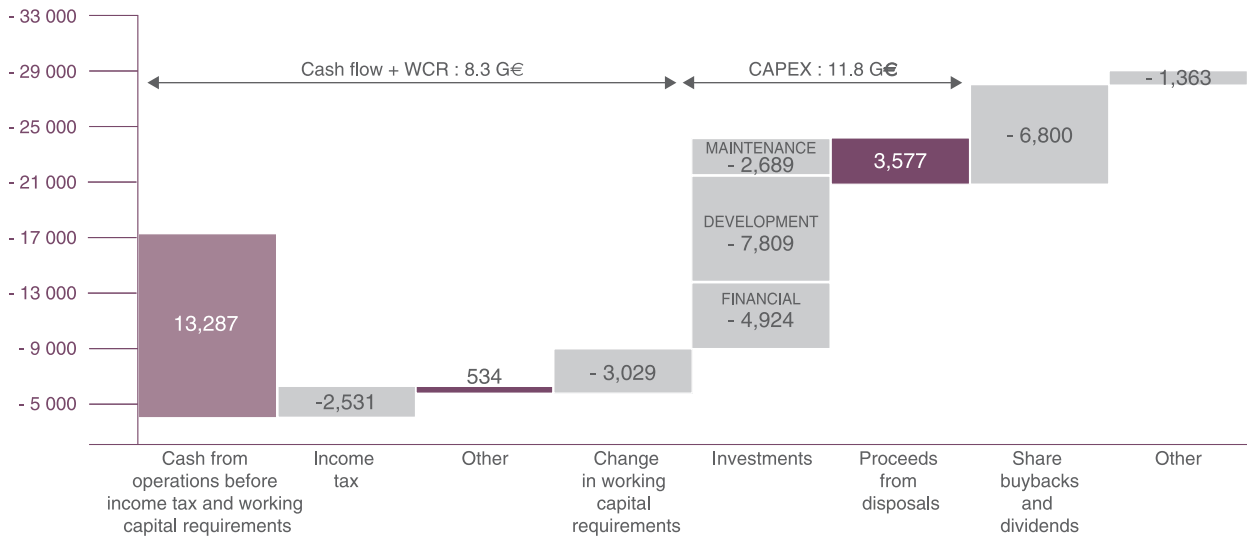
The difference between consolidated **current operating income** and the pro forma figure essentially reflects current operating income reported by Gaz de France prior to the merger (€3,019 million), less depreciation and amortization charged during the period against the fair value of assets and liabilities acquired in the merger (€289 million) and the contribution from entities sold in connection with the remedies (€415 million).

A full reconciliation between the consolidated income statements and pro forma data is presented in the »Pro Forma Financial Information» section of the Reference Document.

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## 9.5 CHANGES IN NET DEBT

Pro forma net debt, excluding net cash held by Fluxys and Distrigas, amounted to €17.2 billion at end-2007, compared with €28.9 million at December 31, 2008. The year-on-year change in net debt is described below:



### 9.5.1 CASH GENERATED FROM OPERATIONS BEFORE INCOME TAX

Cash generated from operations came in at €13,287 million for 2008, a rise of 6.7% on a reported basis compared with 2007. Growth in this item underperformed EBITDA (up 10.7%) as it includes a rise in impairment losses taken against trade receivables and cash outflows relating to restructuring measures, partially offset by a rise in dividends received from associates.

Income tax expense of €2,531 million includes prepaid tax disbursed by Gaz de France SA prior to the merger, which is expected to be reimbursed to the new Group in 2009.

### 9.5.2 CHANGE IN WORKING CAPITAL REQUIREMENTS

The €3,029 million rise in working capital requirements includes almost €700 million resulting from margin calls on capital market transactions, with sharp fluctuations in commodity prices triggering a steep rise in volatility.

The rest of the increase in working capital requirements is largely attributable to the Global Gas & LNG business line and the Benelux & Germany division. Trade receivables rose in all companies

selling energy and maintaining gas stockpiles. This reflects higher energy prices, as well as an increase in the volume of business. At December 31, 2007, trade payables included non-recurring items (particularly in the Energy Europe and Energy International business lines) settled in 2008, which stemmed the rise in this caption over 2008.

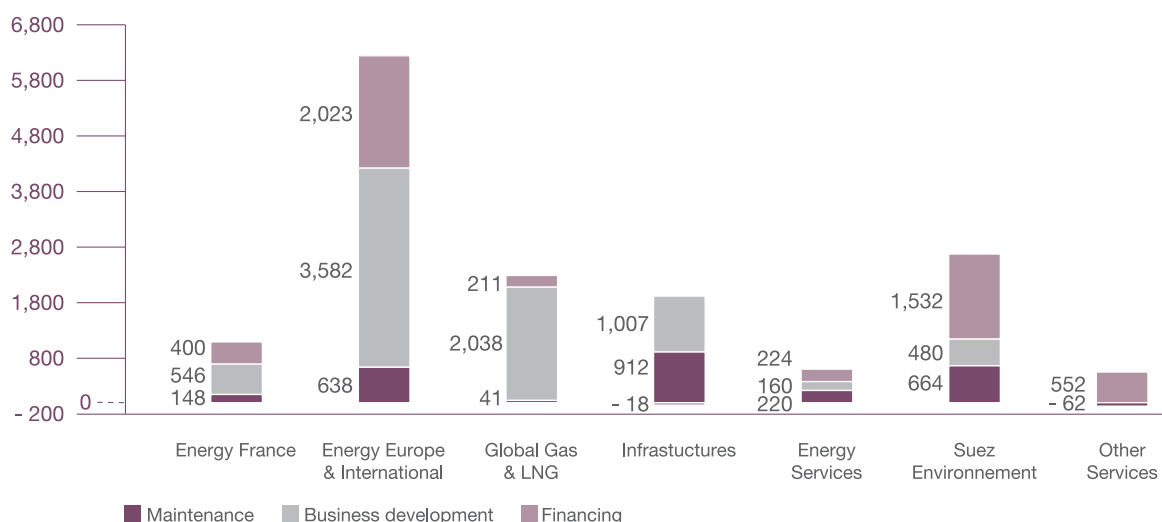
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### 9.5.3 NET INVESTMENTS

Net investments in 2008 totaled €11.8 billion and include:

- financial investments for €4.9 billion, including €0.7 billion relating to the acquisition of FirstLight, €0.7 billion relating to the increase of the stake in Agbar<sup>(1)</sup>, €0.5 billion for Senoko, €0.3 billion for SET, €0.2 billion for Nogat and €0.2 billion for Teesside;
- maintenance expenditure totaling €2.7 billion and business development expenditure of €7.8 billion.

Capital expenditures break down as follows by business line:



Disposals in 2008 represent €3,577 million and essentially comprise the proceeds from divestments carried out as part of the merger remedies (€2,993 million) as well as the sale of the Chehalis power plant.

### 9.5.4 SHARE BUYBACKS AND DIVIDENDS

Total payments to shareholders during the year amounted to €6.8 billion, of which €1.7 billion under the share buyback program and €5.1 billion in dividends. Dividends include those paid by SUEZ SA to its shareholders (€1.7 billion, versus €1.5 billion in 2007, reflecting the increase in the dividend paid per share as well as the number of shares carrying dividend rights), dividends paid by Gaz de France

SA for €1.2 billion, and the interim dividend paid to the shareholders of the merged group in an amount of €1.7 billion. The caption also includes €0.5 billion in dividends paid by various subsidiaries to minority interests.

(1) In light of the binding commitment granted to Agbar minority shareholders within the scope of the public tender offer outstanding at the end of 2007, the corresponding debt had been included in the balance sheet for the Group's share in the offer.

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## MANAGEMENT REPORT

### 9.5 CHANGES IN NET DEBT

#### 9.5.5 NET DEBT AT DECEMBER 31, 2008

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Net debt at December 31, 2008 moved up to €28.9 billion versus €17.2 billion at end-2007 (pro forma based on the inclusion of Fluxys using the equity method and the deconsolidation of Distrigas), while the gearing ratio came out at 46%.

Including the impact of financial instruments, 63% of net debt is denominated in euros, 23% in US dollars, and 1% in pounds sterling.

Including the impact of financial instruments, 55% of net debt is at fixed rates.

The average maturity of net debt is 6.6 years.

At December 31, 2008, the Group had undrawn confirmed credit facilities and commercial paper back-up lines totaling €11.3 billion. Including the bond issues carried out in January and February 2009, this amount rises to €17.4 billion.

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## 9.6 OTHER BALANCE SHEET ITEMS

The following table presents the consolidated balance sheet of SUEZ at December 31, 2007 and the consolidated balance sheet of GDF SUEZ at December 31, 2008. It reflects the impacts of the consolidation of Gaz de France on the main balance sheet captions.

### ● ASSETS

In billions of euros	GDF SUEZ Dec. 31, 2008	SUEZ Dec. 31, 2007	Difference	of which		
				Gaz de France opening balance sheet	Allocation	Net change 2008
Non-current assets	115.2	51.4	63.8	31.3	27.5	5.0
o/w goodwill	27.5	14.9	12.6	1.8	9.6	1.2
Current assets	52.0	27.7	24.3	19.4	0.2	4.7
o/w cash and cash equivalents	9.0	6.7	2.3	2.9		-0.6
<b>TOTAL ASSETS</b>	<b>167.2</b>	<b>79.1</b>	<b>88.1</b>	<b>50.7</b>	<b>27.7</b>	<b>9.6</b>

### ● EQUITY AND LIABILITIES

In billions of euros	GDF SUEZ Dec. 31, 2008	SUEZ Dec. 31, 2007	Difference	of which		
				Gaz de France opening balance sheet	Allocation	Net change 2008
Shareholders' equity	57.7	22.2	35.6	17.5	22.7	-4.6
Minority interests	5.1	2.7	2.4	0.6	0.0	1.8
<b>TOTAL EQUITY</b>	<b>62.8</b>	<b>24.9</b>	<b>38.0</b>	<b>18.1</b>	<b>22.7</b>	<b>-2.8</b>
Provisions	14.8	9.6	5.2	7.6	(2.7)	0.3
Borrowings	38.8	21.7	17.2	6.3	0.0	
Other liabilities	50.8	23.1	27.7	18.7	7.7	
<b>TOTAL EQUITY AND LIABILITIES</b>	<b>167.2</b>	<b>79.1</b>	<b>88.1</b>	<b>50.7</b>	<b>27.7</b>	

The following comments relate to the "Net change" column of the table above, while the "Opening balance sheet" and "Allocation" columns concern the first-time consolidation of Gaz de France and its subsidiaries.

**Non-current assets** advanced, led mainly by property, plant and equipment and intangible assets, net (up €6.1 billion), while available-for-sale securities fell €0.8 billion, chiefly as a result of fair value adjustments.

The €1.2 billion increase in goodwill chiefly stems from the acquisition of FirstLight (€0.7 billion) and Senoko (€0.3 billion) in the Energy Europe & International business line.

**Current assets** increased €4.7 billion, fuelled by the rise in trade receivables (up €3.3 billion) and derivative instruments (up €1.3 billion). These changes reflect the rise in commodity and energy prices.

**Total equity** at December 31, 2008 stood at €62.8 billion. In addition to the impact of the merger, total equity includes €5.5 billion in net income for the year, which more than offset the payment of dividends in an amount of €3.9 billion, net movements on treasury stock for a negative €0.7 billion, the impact of the remedies for a negative €0.8 billion, and the negative €3.2 billion impact of items dealt with directly through equity relating to the mark-to-market of available-for-sale securities and changes in the fair value of commodity derivatives.

**Provisions** edged up €0.3 billion to €14.8 billion. Additions to provisions for the period (€1.3 billion, including €0.5 billion relating to the unwinding of discounting adjustments) were broadly in line with amounts written back over the period.

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## 9.7 PARENT COMPANY FINANCIAL STATEMENTS

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The figures provided hereafter relate to the financial statements of GDF SUEZ, prepared in accordance with French GAAP and applicable regulations.

Revenues for GDF SUEZ totaled €25,209 million in 2008, up 20% on 2007 due to more favorable weather conditions and a rise in energy selling prices.

Operating income for the year amounted to €316 million, down 56% on the comparable year-earlier figure (adjusted for the impact of the creation of GrDF, Storengy and Elengy), mainly due to insufficient increases in public gas distribution rates and the resulting revenue shortfall in the second half of 2008 (see above).

Net financial income came in at €1,939 million, and includes mainly dividends received from subsidiaries (€1,859 million). As of December 31, 2008, net debt stood at €14,050 million.

The Company posted a net exceptional loss of €105 million, reflecting additions to provisions, notably for securities, partly offset by a reversal of the provision for accelerated tax depreciation linked to the creation of underground storage and LNG terminal subsidiaries, as well as the additional purchase consideration paid during the year by Electrabel in respect to the 2007 acquisition of shares held by the former SUEZ entity in SUEZ-Tractebel.

Income tax includes tax consolidation gains reflecting the utilization of a portion of the tax loss carryforwards transferred to GDF SUEZ within the scope of the merger.

Net income came in at €2,767 million.

Equity amounted to €52,043 million at year-end, compared with €24,136 million at end-2007. The sharp rise in equity reflects the impacts of the merger and net income for the year, partially offset by the payment of Gaz de France dividends in 2007 and the interim dividend paid in 2008 by GDF SUEZ.

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## 9.8 OUTLOOK FOR 2009

The development of GDF SUEZ is based on a vigorous, balanced, and value creating growth model. GDF SUEZ has strong assets to weather the economic and financial crises ahead while remaining confident about its ability to deliver its long-term objectives for growth – leadership positions in both electricity and natural gas, diversified and complementary businesses, and a capacity for dynamic, profitable development in promising energy and environment markets. This long-term vision remains in place despite the deteriorating economic situation.

While maintaining its strict profitability criteria for new business, the Group acted immediately to strengthen liquidity and its balance sheet through following measures:

- accelerating implementation to the EUR 1.8 billion 2011 performance plan (EUR 650 million contribution by the end of 2009, compared with EUR 500 million announced last November) ;
- enhancing liquidity and extending the debt maturity through placements, since October 2008, of nearly EUR 10 billion of bonds in various markets ;
- terminating the program of additional share buybacks announced in September 2008, which had been 43% completed.

The Group has set a 2011 EBITDA target that is realistic and consistent with its industrial development plan, the full effect of the Efficio performance plan, its “strong A” credit rating target, and

its ordinary dividend policy, assuming improved macro economic conditions by 2011.

Taking into account currently anticipated economic conditions and oil and electricity price scenarios based on forward prices<sup>(1)</sup>, the Group's EBITDA growth targets are estimated as follows:

- 2009 EBITDA higher than 2008 after anticipated impact of approximately EUR 1.5 billion on the Global Gas and LNG Business Line contribution to EBITDA mainly due to an expected drop in the average price of oil in 2009 and fewer arbitrage opportunities ;
- 2011 EBITDA between EUR 17 and EUR 18 billion.

Considering results achieved and the Group's prospects, on March 4, 2009 the Board of Directors recommended an ordinary dividend payout in 2009 of EUR 1.40/share<sup>(2)</sup> (+11% in relation to 2007) that includes a EUR 0.80/share interim dividend paid November 27, 2008; the balance of the ordinary dividend will be paid May 11, 2009<sup>(3)</sup>. The Board also recommended payout of a EUR 0.80/share special dividend that may be received in cash or in shares by shareholders who will so request. The special dividend payment or share delivery will take place June 4, 2009. These recommendations will be submitted for shareholder approval at the May 4, 2009 Annual General Shareholders' meeting.

(1) Average Brent \$/bbl : 50/58/62 – Electricity baseload Benelux €/MWh : 52/52/54 on January 2009.

(2) Based on the Gaz de France dividend paid in 2008 for 2007 (EUR 1.26 per share).

(3) Ex-dividend date : May 6, 2009.

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## 10

## CASH FLOW AND SHARE CAPITAL

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## 10.1 ISSUER CAPITAL

Total equity at December 31, 2008 stood at €62.8 billion. In addition to the impact of the merger, total equity includes €5.5 billion in net income for the year, which have been more than offset by the payment of dividends in an amount of €3.9 billion, net movements on treasury stock for a negative €0.7 billion, the impact of the remedies for a negative €0.8 billion, and the negative €3.2 billion impact of items dealt with directly through equity relating to the

mark-to-market of available-for-sale securities and changes in the fair value of commodity derivatives.

As indicated below in Section 10.3.1, the Group's net debt amounted to €28.9 billion at December 31, 2008. As a result, the gearing ratio (net debt divided by total equity) was 46% at December 31, 2008.

## 10.2 SOURCE AND AMOUNT OF ISSUER CASH FLOWS AND DESCRIPTION OF CASH FLOWS

### 10.2.1 CASH GENERATED FROM OPERATIONS BEFORE INCOME TAX AND WORKING CAPITAL REQUIREMENTS

**Cash generated from operations** came in at €13,287 million for 2008, 6.7% higher than for the prior-year period. Growth in this item underperformed EBITDA (up 10.7%) as it includes a rise in impairment losses taken against trade receivables and cash outflows relating to restructuring measures, partially offset by a rise in dividends received from associates.

Growth in cash from operations before income tax and working capital requirements was partly offset by the €3,029 million increase in **working capital requirements**, which includes almost €700 million resulting from margin calls on capital market transactions, with sharp fluctuations in commodity prices triggering a steep rise in volatility.

The rest of the increase in working capital requirements is largely attributable to the Global Gas & LNG Business Line and the Benelux & Germany Division. Trade receivables rose in all companies selling energy and maintaining gas stockpiles, reflecting higher energy prices as well as an increase in the volume of business. At December 31, 2007, trade payables included non-recurring items (particularly in the Energy Europe and Energy International business lines) settled in 2008, which stemmed the rise in this caption over 2008.

Overall, operating activities generated surplus cash of €8.3 billion in 2008.

### 10.2.2 CASH FLOW USED IN INVESTING ACTIVITIES

Net investments in 2008 totaled €11.8 billion and include:

- financial investments for €4.9 billion, including €0.7 billion relating to the acquisition of FirstLight, €0.7 billion relating to the increase of the stake in Agbar, €0.5 billion for Senoko, €0.3 billion for SET, €0.2 billion for Nogat and €0.2 billion for Teesside;
- maintenance expenditure totaling €2.7 billion and business development expenditure of €7.8 billion.

Disposals in 2008 represent €3,577 million and essentially comprise the proceeds from divestments carried out as part of the merger remedies (€2,993 million) as well as the sale of the Chehalis power plant.

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**10.2.3 SHARE BUYBACKS AND DIVIDENDS**

Total payments to shareholders during the year amounted to €6.8 billion, of which €1.7 billion under the share buyback program and €5.1 billion in dividends. Dividends include those paid by SUEZ SA to its shareholders (€1.7 billion, versus €1.5 billion in 2007, reflecting the increase in the dividend paid per share as well as the number of shares carrying dividend rights), dividends paid by

Gaz de France SA for €1.2 billion, and the interim dividend paid to the shareholders of the merged group in an amount of €1.7 billion. The caption also includes €0.5 billion in dividends paid by various subsidiaries to minority interests.

**10.2.4 IMPACT OF REMEDIES**

This Remedies line represents €3.1 billion and essentially comprises the proceeds from sales of Fluxys (€200 million), Distrigas

(€2.7 billion) and Coriance (€30 million), as well as the dividends received in 2008 from Distrigas and Coriance.

**10.3 FINANCIAL STRUCTURE AND BORROWING CONDITIONS APPLICABLE TO THE ISSUER**

**10.3.1 DEBT STRUCTURE**

At December 31, 2008, gross debt (excluding bank overdrafts and amortized cost) increased to €37 billion versus €25 billion on a pro forma basis at end-2007. Gross debt consists primarily of bonds for €13.7 billion and bank borrowings (including finance leases) for €14.6 billion.

Short-term loans (commercial paper and drawdowns on credit facilities) represent 32% of total gross debt in 2008.

61% of the gross debt is issued on the financial markets in the form of bonds and commercial paper.

Excluding measurement at amortized cost and the impact of derivative instruments, net debt totaled €28.4 billion at December 31, 2008.

Excluding measurement at amortized cost but including derivative instruments, 63% of net debt at year-end 2008 is denominated in euros, 23% in US dollars and 1% in pounds sterling.

55% of net debt is at fixed rates. The cost of net debt for 2008 is 4.93%, reflecting lower interest rates over the year. At December 31, 2008, the average maturity of net debt is 6.6 years.

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**10.3.2 MAIN DEVELOPMENTS IN 2008**

The Group was extremely active on both the short- and long-term capital markets in 2008.

The Group successfully financed its investments despite the turbulence on the financial markets thanks to its high quality credit ratings, which also enabled it to reopen the euro-denominated bond market after a five-week closure following the collapse of Lehman Brothers in September 2008.

In January 2008, the Group set up external financing of €814 million to fund its portion of the public tender offer for minority Agbar shares launched by SUEZ Environnement, la Caixa group and their jointly-owned subsidiary Hisusa, which ran from December 2007 through January 18, 2008.

In addition, Electrabel SA carried out a seven-year private placement for a total amount of €600 million in the first half of 2008.

The Group's Energy International Division put in place a non-recourse financing facility for USD 390 million in Chile. It also structured with a number of Japanese companies a SGD 2.9 billion acquisition facility and a JPY 70 billion repowering facility, for the purchase of Singapore-based Senoko in the frame of the divestment by Temasek of electricity generation companies.

As part of its growth effort, the Group also set up:

- a project financing for a new electric power plant in Thailand (Gheco One) with local and international lenders for a total amount of USD 746 million;
- a project financing with the Brazilian development bank BNDES (Banco Nacional de Desenvolvimento Econômico e Social) for the equivalent of USD 460 million to fund the Estreito project.

In July 2008, the Company's Board of Directors authorized the following capital markets funding programs for GDF SUEZ SA:

- an EMTN program for €10 billion (subsequently raised to €15 billion in January 2009), including Electrabel SA as a potential borrower;
- an increase of the French commercial paper program (*billets de trésorerie*) from €3 billion to €5 billion;
- a new US commercial paper program for USD 3 billion.

The latter program was implemented during the last quarter of 2008.

Since the merger and in spite of challenging market conditions, the Group carried out a series of bond issues during the second half of 2008 for a total amount of €3.7 billion, denominated in euros, pounds sterling, Japanese yen and Swiss francs.

Since the beginning of 2009, the Group issued a total of €6.2 billion on these markets in order to boost its liquidity.

Following the merger of SUEZ with Gaz de France, certain subsidiaries of SUEZ Environnement, as well as Ondeo, withdrew from GIE SUEZ Alliance in the second half of 2008. GIE SUEZ Alliance was renamed GIE GDF SUEZ Alliance and is now held by GDF SUEZ SA, GDF SUEZ Finance SA, GDF SUEZ Energie Services SA and Electrabel SA.

**10.3.3 GROUP CREDIT RATINGS**

The senior debt of the GDF SUEZ Group and certain subsidiaries has credit ratings issued by Standard & Poor's and Moody's. In July 2008, the ratings for GDF SUEZ Alliance and GDF SUEZ SA were confirmed unchanged at Aa3/P-1 with a stable outlook

by Moody's, and A/A-1 with a positive outlook by Standard & Poor's. Electrabel SA retained its A2 rating with a stable outlook from Moody's.

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## 10.4 RESTRICTIONS REGARDING THE USE OF CAPITAL

At December 31, 2008, the Group had €11.4 billion in undrawn confirmed credit facilities (that can be used as back-up lines for commercial paper programs). 87% of these facilities are managed centrally and are not subject to financial covenants, credit ratios or ratings restrictions.

The Group also arranges credit facilities for certain subsidiaries' whose financial documentation ratios linked to their financial results. These lines of credit are not guaranteed by GDF SUEZ SA or GIE SUEZ Alliance.

The definition and level of these covenants are determined in agreement with lenders and may be reviewed during the life of the loan.

The most frequently used ratios are listed below:

- Debt service coverage ratio (free cash flow divided by principal plus interest costs), or interest coverage ratio (EBITDA divided by interest costs);

- Loan life cover ratio (net present value of future cash flows divided by outstanding debt) is sometimes requested;
- Debt/equity (gearing) ratio or a minimum level of equity.

At December 31, 2008, there were no reported payment defaults on the Group's consolidated debt. All Group companies complied at year-end with the covenants and representations stipulated in their financial documentation, with the exception of:

- four Energy Services Business Line companies and one Energy Europe & International Business Line company did not comply with certain financial covenants;
- four Energy Europe & International Business Line companies and one SUEZ Environnement Business Line company did not comply with their documentation covenants.

However, these companies have not defaulted on their payment obligations and waivers are pending or have been granted. Moreover, the abovedescribed non-compliance has no impact on the financing facilities available to the Group.

## 10.5 PLANNED SOURCES OF FINANCING TO MEET COMMITMENTS STEMMING FROM INVESTMENT DECISIONS

### 10.5.1 CONTRACTUAL COMMITMENTS

The following table presents an estimate of contractual commitments at December 31, 2008 which may have an impact on the Group's future cash flows. This estimate takes account of Group gross borrowings, operational finance leases and irrevocable

commitments made by the Group to acquire fixed assets, and other long-term commitments.

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In millions of euros	Amounts by maturity			Total
	Due in less than 1 year	Due in 1 to 5 years	Due in more than 5 years	
Net debt (incl. finance leases)	4,472	11,391	12,589	28,451
Operating leases	439	1,210	1,077	2,726
Non-cancelable purchase commitments *	2,741	2,516	29	5,285
Financing commitments given	3,773	488	2,554	6,814
Financing commitments received	1,785	10,162	1,589	13,536
Unused confirmed credit facilities	1,228	9,011	1,167	11,405
Other long-term commitments	568	365	296	1,229

\* Net of sale commitments.

Contractual commitments may have a significant impact on operating income or Group sources of financing in the event of changes in the parameters underlying these specific arrangements.

The table above does not include obligations relating to pensions and other employee benefits. At December 31, 2008, payment commitments relating to pension and employee benefit obligations exceeded plan assets in an amount of €3,962 million, excluding (i) the amount due to the Group from Belgian inter-municipal companies following the outsourcing of a portion of the distribution activities; and (ii) the fair value of the assets of Contassur – GDF SUEZ Group’s pension fund management company in Belgium.

For further information on these obligations, please refer to Section 20.2 – Note 18.3 of the Reference Document.

Capital expenditure commitments in an amount of approximately €1.2 billion are also included in the above table under “Other long-term commitments”. These commitments are primarily related to the construction of several power generation plants, and include purchases of turbines, gas power plants, cogeneration plants and incinerators (€886 million), and investments in connection with concession contracts (€343 million).

### 10.5.2 PLANNED SOURCES OF FINANCING

The Group expects that its funding requirements will be covered by cash on hand, cash flows from operating activities and, if need be, its existing credit facilities.

The Group may set up specific financing facilities on a project-by-project basis.

A total of €5.1 billion of the Group’s credit facilities and financing matures in 2009 (excluding €8.7 billion in commercial paper maturing in this timeframe). The GDF SUEZ Group has €8.6 billion in available cash (net of bank overdrafts) at December 31, 2008 and, as described in Section 10.4, €11.4 billion in available lines of credit (excluding drawdowns on the commercial paper program).

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# 11

## INNOVATION, RESEARCH AND DEVELOPMENT, PATENTS AND LICENSE POLICY

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## 11.1 RESEARCH AND INNOVATION

### INNOVATION AT THE CORE OF THE GDF SUEZ STRATEGY

In emphasizing responsible growth for its businesses (energy, energy services and the environment), GDF SUEZ sees its mission as tackling the major energy and environmental challenges: meeting energy needs, fighting against climate change and optimizing the use of resources. By placing research and innovation at the heart of its strategy, the Group is pursuing a two-fold objective: brighten the future in order to prepare for tomorrow's technologies and meet market needs. Energy and environmental efficiency are one of the pillars of the programs led by its 1,200 researchers.

GDF SUEZ's network of R&D centers and laboratories focuses on technological innovation in the areas leading the global trends of tomorrow:

- security of supplies;
- improved technical performance and better savings;
- control of environmental impacts;
- fight against global warming.

In 2008, the Research and Innovation Budget totaled €203 million, and the department possesses a portfolio of 1,992 patents, excluding SUEZ Environnement.

2008 was also the year of the development of Research and Innovation, which culminated in the International Gas Union Research Conference (IGRC) held in Paris from October 8 to 10, 2008, at the Cité des Sciences et de l'Industrie. As a founding member of the IGRC Foundation, GDF SUEZ was a platinum sponsor of

the event and member of the National Organizing Committee. Over 800 researchers, engineers and international experts discussed the current issues affecting the sector: main strategies for the natural gas industry, new technologies, innovation in sustainable development and the efficiency of transport networks.

Convinced that only innovation predominates research and development, GDF SUEZ and SUEZ Environnement Company have established a proactive approach to stimulate and promote initiatives and innovative projects in the technical, sales and managerial fields by carefully examining proposals for various projects submitted by teams in the field.

GDF SUEZ and SUEZ Environnement Company essentially use two methods of identifying how to promote innovation and manage it: Innovation Initiatives Trophies which award the most innovative projects implemented in business units every year and Value-Creation Labels that assess the development of these projects over a three- or four-year period.

Seven major Group-wide Research and Innovation programs were launched in 2008: renewable energies, energy storage, intelligent metering and networks, offshore LNG, CO<sub>2</sub> capture and storage, city and transport planning of the future and desalinization and the related energy.

### A GLOBAL NETWORK OF R&D CENTERS

Research and Innovation activities are primarily conducted in specialized R&D centers:

- The **CRIGEN** (*Centre de Recherche et Innovation Gaz et Energies Nouvelles* or Center for Research and Innovation in Natural Gas and New Energies) based in Saint-Denis and Alfortville in France. With 540 employees, its portfolio of 1,500 patents and 2008 budget of €100 million, the CRIGEN is ISO 9001-certified (industrial measurement activities and project management), ISO 14001-certified (environmental and industrial security) and COFRAC ISO 17025-certified (metering and materials and hydraulics testing on *transport* pipelines).

Its project portfolio covers 5 major areas:

- **development of offers:** for the residential and services sector, industry, local communities and transportation (NGVs), notably

thanks to its expertise in combustion, thermochemistry, *l'analyse du cycle de vie* (product life cycle analysis, or (CA);

- **"new energies":** renewable energies, decentralized energies, micro-cogeneration, energy storage and CCS (Carbone Capture and Storage),
- **gas infrastructures:** network capacity issues and control of performance are important (safety of operation, management and service life). Expertise in natural gas safety is and will remain an essential part of the credit of GDF SUEZ,
- **LNG:** through a selective R&D strategy based on liquefaction, *transport* and regasification, the CRIGEN ranks as the technological leader in specific areas: unloading arm, heat exchangers. It maintains and prepares the expertise of the future for LNG facilities and emerging projects,

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– **web innovation and mobility solutions for office workstations.**

The CRIGEN has two expertise centers serving the regional industrial departments:

- **the Economic Research expertise center** whose purpose is model-building for supply/demand balances, energy forecasts, model-building and simulation of energy prices, economy of the environment, the impact of climate on the Group's businesses and the recovery and optimization of assets and asset portfolios,
- **the Renewable Energies in Construction expertise center** in order to help define Group strategy on renewable energies. It is designed to be a technical back office for the Group's Business Lines and Business Units in order to rapidly provide competitive global energy solutions to GDF SUEZ clients. Its role is to:
  - provide technical expertise to help define and qualify technical solutions and list suppliers as part of the development of commercial offers and supply contracts,
  - guide the Group on technological and market trends and assist in lobbying.

The expertise center is also developing an R&D program to boost the competitiveness of Group subsidiaries that produce photovoltaic cells or modules - particularly Photovoltech and Sulfurcell - and develop new renewable energy products and applications (notably by combining renewable energy and gas solutions).

- The CRIGEN is involved in major international research projects:
  - major European projects such as CESAR (CO<sub>2</sub> Enhanced Separation and Recovery), which followed up on the CASTOR program (CO<sub>2</sub> from CApture to STORage), which brought together the main European energy specialists; EU-DEEP which develops network coordination technologies in order to manage decentralized energies and INTEG-RISK (Early Recognition, Monitoring and Integrated Management of Emerging, New Technology Related Risks),
  - major projects designed to face issues of transmission via pipelines, under the Pipeline Research Council International (PRCI)

The CRIGEN develops strong partnerships with the best research organizations such as the CEA (French Atomic Energy Commission), CNRS (French National Center for Scientific Research) and IMEC (Interuniversity Microelectronics Centre) as well as university laboratories including *Polytechnique Montreal* in Canada, *École des Mines de Paris*, *Université Paris-Dauphine* in France, *Institut d'Économie Industrielle* of the University of Toulouse 1 (Toulouse School of Economics).

In France, the CRIGEN participates in the competitiveness clusters TENERDIS, DERBI and AXELERA, and has contributed to 30 projects of the *Agence Nationale de Recherche* (French National Research Agency) since it was set up.

- **The Exploration and Production Department** oversees the Group's R&D in the geosciences for the requirements of E&P and underground storage;

- **Laborelec**, located near Brussels (with a subsidiary in Maastricht in the Netherlands), specializes in activities related to the production, distribution, and use of energy and sustainable development.

It is on the cutting edge in the control of energy quality and the knowledge of procedures and equipment for energy production, including renewable energy sources.

The monitoring of the behavior of equipment, particularly the vibratory control of rotating machines, is a special strength, as well as expertise on the behavior of gas turbine materials, high-pressure boilers, the use of biomass and the chemistry of process and cooling waters.

Laborelec develops and offers specialized services for industry essentially focused on energy efficiency. Its expertise is evident in all its four product lines:

- “Electric and Metrological Systems”;
- “Technology for Sustainable Procedures”;
- “Electrotechnical Engineering Materials and Equipment”;
- “Materials and Vibratory Control Technology”.

For certain highly sensitive activities, Laborelec's professionalism and impartiality are guaranteed by ISO 17025 and ISO 9001 certifications.

Laborelec develops collaboration with a broad range of universities and prestigious schools:

- In Belgium: *Université Catholique de Louvain* (UCL, Louvain-la-Neuve); *Katholieke Universiteit Leuven* (KUL, Louvain); *Université Libre de Bruxelles* (ULB, Bruxelles); *Vrije Universiteit Brussel* (VUB, Bruxelles); *EHB* (Erasmus Hogeschool Brussel, Erasmus University College Bruxelles); *Universiteit Gent* (UGE, Gand); *ProFish Technology* (fish protection technology), spin-off of the *Université de Liège* (ULg, Liège); *Faculté Polytechnique de Mons* (FPM, Mons), *ISIC* (*Haute École Roi Baudouin*, Mons), *Université de Howest* (University College West-Vlaanderen, Courtrai).
- In Europe: *Universities of Cardiff and Leeds*, *Institut d'Électronique du Sud* (IES), *Delft University of Technology* (TU Delft), and as part of the COPOLA project: *Lyon*, *Chambéry*, *Palaiseau*, *Paris Ensam*, *Paris Espci*, *Reims*, *Saint-Étienne*, *Strasbourg*.

- **Elyo Cylergie**, based near Lyon. Its capabilities are used in the energy services business. Special emphasis is placed on energy efficiency, minimizing environmental impact, health and comfort, and monitoring performance commitments.

Its research focuses on,

- networks for heating and cooling,
- energy management,
- metrological and remote systems,
- renewable energies and new energy technologies,
- environment, health and comfort.

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Cylergie holds about ten patents and twenty *Trophées de l'Innovation du Groupe* (Group Innovation Awards), including two Grand Prizes. Its research partnerships include the CEA (French Atomic Energy Commission) and CNRS (French National Center for Scientific Research) as well as a number of competitiveness clusters.

- **Tractebel Engineering**, with operations in Belgium, France, Italy, Poland, Romania, the Czech Republic, India, and Brazil, focuses its R&D activity on three lines:
  - sustainable energy (thermal energy production with low CO<sub>2</sub> emissions and renewable energies),
  - nuclear energy,
  - transport and distribution networks,

Tractebel Engineering's outstanding expertise in these areas is confirmed by its involvement in leading European research projects and the international renown of its products and brands (Eurostag, Coyne et Bellier, etc.).

**GDF SUEZ nuclear research and innovation:**

GDF SUEZ is pursuing its various R&D projects in the following areas:

- surface or deep deposit of nuclear waste,
- decommissioning and dismantling of nuclear facilities,
- improvement of existing technologies,
- safe life extension of facilities,
- chemistry of primary, secondary and tertiary circuits,
- participation in the development of new technologies (GEN IV, ITER, etc.).

As such, the Group collaborates on R&D programs with the CEA, SCK/CEN (Belgian Nuclear Research Center), EPRI (Electric Power Research Institute), AREVA (NP and NC), ONDRAF (Belgian Agency for Radioactive Waste and Enriched Fissile Materials) and others.

**SIGNIFICANT EVENTS IN 2008**

GDF SUEZ's results in Research and Innovation in 2008 notably include progress in the following areas:

- **Secure Energy Supply**
  - a first-ever for the CRIGEN in 2008: successful testing for the qualification of an LNG unloading system by flexible hose. The qualification of this new flexible hose has made inroads into the possibility of building the first offshore LNG facility. This new LNG transport system is based on a major innovation: a large-diameter, flexible cryogenic hose manufactured in the Seine Maritime department in France. Called the Amplitude-LNG Loading System (ALLS), it is the first system including a flexible hose adapted to difficult sea conditions. This new flexible hose can be used for the transport of LNG at start and end points of the LNG chain to an offshore or coastline terminal, guaranteeing maximum availability of facilities. This innovation also meets the growing need of the LNG industry for offshore facilities and represents an alternative for traditional onshore *transport* systems,
  - in partnership with the ADEME (French Environment and Energy Management Agency) and the European Commission, the CRIGEN organized the third international conference on the Integration of Renewable and Distributed Energy Resources, which took place in Nice, France, from December 10 to 12, 2008. This set of conferences, notably organized by the EU-DEEP project, aims to foster the exchange between US, European and Japanese operators involved in these issues,
  - in 2008, Laborelec built an electricity micro-network at its Linkebeek site. The energy produced on the site itself by solar panels and a wind farm is distributed to local consumers. Its experts are notably using this facility to examine the stability, performance and quality of the different energy sources linked to the network,

- **Improved Technical and Economical Performance**
  - in 2008, the CRIGEN rolled out 2,000 *Dispositif de Protection des Branchements Existants* (existing connection protection systems, or DPBE) across the GrDF natural gas distribution network: a new technology for securing existing connections, these systems are used to stop the flow of natural gas in the case of excess flow due to a connection leak. Seven patents protect this device, the first of its kind,
  - in 2008, the CRIGEN conducted the first renovation program using the 3Cep system for evacuation combustion products. This major new technology can be used to facilitate the development of condensing boilers in new housing or renovation in old housing. Moreover, two successful demonstrations of electric boilers (an ecological heating system using natural gas) were carried out: the Whispergen boilers in the Rhône-Alpes region integrated into the existing system and a new electric boiler in a new building, which won an award in the *challenge des maisons innovantes* (Innovative Houses Challenge) organized by the *Union des maisons françaises* (French Houses Union),
  - Laborelec made significant headway in 2008 on its "Combustion Dynamics Monitoring and Tuning (CDM&T)" project which affords gas power plants considerable advantages, enabling them:
    - to strike an optimal balance between stability of combustion and environmental performance,
    - to reduce the number of unplanned shutdowns by automatically informing operators of combustion oscillation, thus allowing them to take the time necessary to implement the appropriate measures.

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### • Control of Environmental Impacts

- the CRIGEN is closely involved in the methodological development concerning life cycle analysis (LCA). It monitors and steers the work of the Research Chair in Life Cycle Management of Polytechnique Montréal. In 2008, the CRIGEN completed the LCA of uses of natural gas for producing electricity and heat in France, in collaboration with the Paul Scherrer Institute. This study should be published in 2009 and will be the first of its kind for a European gas field,
- as part of the supervision of the European work group, Marcogaz, the CRIGEN updated the LCA of natural gas distributed in Europe and cooperates with the European LCA database project (ELCD). It also completed the LCA of the electricity produced and supplied by Gaz de France in 2007. At the same time, LCAs of different energy systems were conducted to strengthen Group offers. The CRIGEN also initiated the development of environmental assessment tools for local communities,
- in light of the major efforts made to reduce greenhouse gas emissions and local pollutants in transport, NGVs (Natural Gas Vehicul) offer substantial advantages: environmentally friendly (25% less CO<sub>2</sub> than fuel) and immediate availability. The combination of NGV technology with hybrid vehicle technology boosts the environmental benefit of NGVs. In partnerships, GDF SUEZ developed two NGV hybrid prototype vehicles:
  - a single fuel NGV micro-hybrid Smart car (equipped with the Stop & Start system): CO<sub>2</sub> emissions are 84g/km and current optimization will reduce that figure to less than 80g of CO<sub>2</sub>/km (30% of the CO<sub>2</sub> of a fuel model), presented at the Paris Motor Show in October 2008,
  - a single fuel NGV full-hybrid Prius with CO<sub>2</sub> emissions of 78g CO<sub>2</sub>/km (i.e. 25% less than a fuel Prius). This vehicle won the gold medal in the 2006 Challenge Bibendum.

To increase the advantage of NGVs in this area, GDF SUEZ teams are working on the ANR project to develop post-processing 3-way catalysts especially for NGVs, for improvement in performance. The last area of improvement on which GDF SUEZ is focusing is the integration of bio-methane in NGVs. In addition to its renewable quality, bio-methane is totally compatible with and can easily be incorporated into NGVs, offering a theoretical potential for reducing CO<sub>2</sub> emissions by about 55% <sup>(1)</sup>.

- the CRIGEN pursued its development and classification of technologies producing low air pollution such as:
  - the implementation of technologies for energy-efficient, flameless oxidation burners (ultra-low NOx) on steel furnaces (cooperation with ARCELORMITTAL) and glass-makers (cooperation with ASAHI GLASS and OWENS-ILLINOIS),
  - the development of combustion technology using synthetic air, in order to obtain CO<sub>2</sub> concentrated fumes that are easier to capture, to be integrated into existing furnaces.

- water intake by power plants can seriously affect fish populations in rivers. Although many power plants currently use technologies such as flash illumination, acoustic barriers and electric shock systems, none of these methods is effective enough to repel all species of fish. The system developed by ProFish Technology and Laborelec in 2008 is a completely different approach. It is based on the emission of very low frequency ultrasound signals. The fish mortality rate is expected to be reduced by 85%.

### • Fight Against Global Warming

- in 2008, the CRIGEN developed an ambitious, innovative project in the production of green methane gas: *GAYA, a platform of demonstration plants on gasification*. The Research and Innovation teams of GDF SUEZ have implemented the GAYA project, which aims to create a reliable and profitable green methane production division that can be sold as a biofuel or combustible gas that can be transported via the natural gas network. The project is based on the operation of a platform of demonstration plants unique in Europe that would be used to approve technologies and bring together stakeholders and expertise. In synergy with the GAYA project, a project developed by the Energy Services Business Line was selected by the MEEDDAT (Department of Ecology, Energy, Sustainable Development and Territorial Development) for the construction of a cogeneration unit (production of electricity and heat) by wood gasification as part of a bid for electricity production using biomass launched by the *Commission de Régulation de l'Énergie* (French Energy Regulator, or CRE). The projects are located near each other, in La Rochette in Savoie, in order to harness a number of synergies.
- as regards control of CO<sub>2</sub> emissions of industrial facilities, notably power plants, GDF SUEZ is pursuing a number of initiatives to study CO<sub>2</sub> capture and geological storage. A Group program was set up at the end of 2008, capitalizing on the many Research and Innovation measures taken in this area by the different Business Lines and Divisions of the Group. The two following projects are prime examples of the initiatives taken by GDF SUEZ in 2008:
  - with its partners, the CRIGEN is developing an innovative cryogenic CO<sub>2</sub> capture technology that can take advantage of the frigories in the LNG in terminals in order to increase the efficiency of the process, cut costs and hence harness synergies between LNG terminals and thermal power plants located in the vicinity,
  - in collaboration with Hitachi and E.ON, Electrabel is developing a pilot project on post-combustion CO<sub>2</sub> capture. This project is in the phase of pre-assembling components/containers and will be subject to a final review for permits prior to activation. This test facility can treat up to 5,000 Nm<sup>3</sup>/h of fumes in real conditions (1t/h of CO<sub>2</sub> captured). The facility is “mobile” and will be operated at Electrabel and E.ON power plants over a four-year period.

(1) Study conducted by the Wuppertal Institute and PSI – International JRC Conference on Transport and Environment - March 2007.

- Laborelec has developed an intelligent network for the **Princess Elisabeth** Research Station, a project of the International Polar Foundation. The on-site implementation will confirm that the innovative concept proposed can maintain the balance between energy consumption and energy production with

intermittent renewable energy sources (PV, wind). The Princess Elisabeth Station was designed to be the most energy friendly base in Antarctica and the most efficient base to date. The scientific station will not only produce its own emission-free electricity, but it will also use efficiently produced energy.

**INNOVATION AT SUEZ ENVIRONNEMENT**

Innovation at SUEZ Environnement is part of its strategy to meet the needs of today's clients and anticipate their future needs. The major efforts made in innovation ensure productivity gains for production tools and contribute to financial profitability. Innovation is also used to improve environmental performance, whether in terms of impact on the climate, impact on resources or impact on biodiversity. Research, technological development and expertise are the resources used by the Group to improve the economic and environmental performance of our operations and the technological developments expected by our clients. In 2008, the Group invested €65 million in research, technological development and innovation.

This Research and Innovation policy is based on the work of experts in operational units, research programs developed in the Group's R&D Centers and the coordination of the innovation policy to foster dialogue between researchers and experts and to deliver innovative offers and services to our clients.

In all, there are over 400 researchers and experts working full-time on technological Research and Development projects in the R&D centers and in expert networks. Moreover, in a move to combine the R&D efforts of the Group's different operational units in the water businesses and promote joint research programs, Lyonnaise des Eaux, Agbar, United Water, Northumbrian Water and SUEZ Environnement have formed the partnership R+i Alliance. R+i Alliance has notably been conducting research on the control of algae and odors, energy efficiency, dynamic management of rainwater or the relation between water and health. The R+i Alliance 2008 budget totaled €8 million.

Outside the Group, a number of partnerships with public entities (for example, Cemagref, CNRS, University of Tongji, University of California Los Angeles (UCLA)) and private entities or even expertise and innovation networks like competitiveness clusters

(namely Axelera, Advancity, Vitagora) are helping to step up the Group's research and development efforts while benefiting from the collaboration with some of the best research teams in the world. Of note in 2008 is the very high success rate (60%) of its R&D centers in calls for project proposals by the *Agence Nationale de la Recherche* (French National Research Agency, or ANR) on ecotechnology or health issues.

Finally, convinced that only innovation predominates research and development, SUEZ Environnement has established a proactive approach to stimulate and promote initiatives and innovative projects in the technical, sales and managerial fields by carefully examining proposals for various projects submitted by teams in the field.

**The Main R&D Programs**

In addition to working to solve the major issues posed by health and environmental risks, the Group's research and development efforts also aim to face the challenges of sustainable development:

- **Fighting climate change is an important issue, and the Group intends to offer solutions resulting from its research and development efforts.**

In water and waste, a number of programs are now devoted to reducing greenhouse gases, energy recovery and the development of the potential of renewable energies: energy production using biogases from biomass (landfill site, sludge treatment), energy savings, increased energy recovery from incineration units, use of renewable energies linked to treatment processes, recovery of heat from wastewater (Degrés Bleus), reduction of greenhouse gases from waste collection offer a few examples of the research and innovation undertaken by the Group.

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For example, household waste collection, waste compression at the receptacle (Cyclabelle), pneumatic transfer and the partnership with Renault to develop alternative hybrid carburetion are innovations intended to reduce disruptions caused by collection trucks and their greenhouse gas emissions.

Moreover, the impact of the incineration directive has placed emphasis on the need to optimize incineration. Instruments used to simulate fluid dynamics, calculated by computer and developed several years earlier in the water area, were transferred to incineration activities to provide simulation tools to control the operations of incineration plants.

- **Limiting the impact of Group activities on resources is another major sustainable development issue.**

In order to limit the impact of the Group's activities, research, development and innovation efforts have gone towards both recycling of matter in the waste treatment business and wastewater reuse, including sea water desalinization.

In waste management, the Group has launched major programs to improve the treatment of solid waste through the recycling of matter (plastic, rubber, metals) or composting organic waste.

In upstream sorting methods, the Group is working on improving automated sorting techniques such as optical sorting of bottles or flotation sorting of demolition wood or metals. The purpose is to reduce the burden of the work as well as to increase global sorting efficiency, allowing for an increase in business recycling rates.

Research efforts are intensifying on materials recycling in order to meet market expectations. In this case, close collaboration with manufacturers is vital. The Group is developing methods for the disassembly of large equipment, such as aircraft, to allow it to reuse these parts, through materials recycling (metals, for example).

In the water businesses, Degrémont, continuing its leadership in the field of desalinization by reverse osmosis, has recently patented a membrane pre-treatment process using micro-coagulation, a process which allows flow over the membranes to be increased significantly.

The Group is active in the very large desalinization markets (Perth, for example) through Degrémont as well as in smaller markets involving fresh water membrane treatment through Ondeo Industrial Solutions. A standard skid combining ultrafiltration and reverse osmosis units on the same platform was developed in 2007 and integrated into the service offer of Ondeo Industrial Solutions to treat surface water and industrial wastewater. This skid is to be used for outputs ranging from 5 to 50 m<sup>3</sup>/h.

In the field of disinfection using ultraviolet light, Degrémont has expanded its range of products in order to meet the needs for

higher flow systems. This range of products sold directly by Degrémont Technologies, but also integrated into Degrémont's turnkey solutions, is adapted to drinking water and urban or industrial wastewater.

More generally, in the area of industrial waste water, the research center in Shanghai, in collaboration with the Shanghai Chemical Industrial Park, has allowed it to strengthen its expertise in the classification of special effluents and optimization of their treatment, lending an additional advantage to Ondeo Industrial Solutions.

In terms of controlling the impact on water resources, significant work is currently being done to increase the technical yield of drinking water networks and reduce leaks in order to avoid wasting water resources. This program also faces the challenge of renewing infrastructures, be it drinking water canalization networks or sanitation systems for communities. It is important to determine their remaining useful life depending on local conditions, their age, and the specific nature of the materials used to implement a "sustained maintenance" policy for underground systems. Thanks to the significant results obtained, changes will be made to Group specifications for certain products and the implementation of best practices will be completed. The program has three main focuses: the classification of systems, the management and maintenance of these systems and investment forecasts.

#### *Real-Time Consumption Monitoring*

Lastly, an innovative program on real-time consumption monitoring was also launched (Aviz'eau). The purpose is to develop tools to control consumption for water consumers to allow greater general knowledge of network flows in order to optimize them.

- **More generally, minimizing environmental impact is one of the main objectives of the Group's research and development**

#### *Controlling Odor Pollution*

SUEZ Environnement has brought together nine business units (Lyonnaise des Eaux, SITA France, SITA FD, Agbar, Degrémont, Fairtec, Terralys, United Water, Ondeo Industrial Solutions) around a major odor pollution control program in the vicinity of its sewage and sanitation facilities.

Currently, the Group is experienced in measuring and model building for odor dispersal systems; it can identify emissions from numerous sources and has remedial resources at its disposal. An olfactometry laboratory was set up to analyze odors and train Group staff and residents living near Group facilities. This expertise can be used to design new facilities with adapted odor control systems and, in collaboration with members of the local community, pinpoint the appropriate corrective measures in the event of a crisis.

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*Dynamic Rainwater Management*

A major program for the projecting and real-time control of rainwater was started in 2006. The purpose is to limit disruptions caused by storm flooding in the event of environmental restrictions on river waters and to offer new services to municipalities within the framework of regulatory restrictions on bathing waters. The purpose of this program is to develop appropriate tools for real-time forecasts, alerts and optimization for rainwater systems, focusing on the quality of water, efficiency of treatment businesses and the measurement of quantities.

• **Health and Environmental Risks**

Lastly, in line with its tradition, the Group is continuing to invest significantly in sanitary monitoring programs related to drinking water quality, to ensure the perfect food quality of water distributed to its consumers' taps. SUEZ Environnement has the world's leading laboratories in the area. Consequently, the Group participates, in conjunction with French and worldwide health authorities, in analyzing and continuously monitoring the actual risks of emerging pollutants, their potential pathogenic effects and the adaptation of technologies to the elimination of these pollutants in the current or new waste treatment businesses.

In 2009, the Group intends to pursue its innovation strategy with increased efforts to improve its environmental performance.

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## 11.2 INTELLECTUAL PROPERTY

### 11.2.1 PATENTS

• **The CRIGEN:**

Ten patents were filed in 2007 and four in 2008. These last four concerned:

- an electronic system used to identify each conductor among the conductors in a cable containing several strands, with each strand identified using a magnetic switch,
- equipment used to encapsulate a flow control system called "DBPE" in a sheath before it is inserted in a gas pipeline,
- equipment to install flow control system in gas piping,
- a process used to determine the integrity of steel piping systems for the transmission of pressurized fluids.

An inventory of the patents held by the different research centers of GDF SUEZ Group was taken in order to group them together into a single management unit. The portfolio of intangible assets comprised of patents, designs and models, brands and domain names is managed by a dedicated entity.

As of end-2008, the GDF SUEZ Group portfolio covered 197 patent categories with over 1,000 patents filed abroad. One quarter of the portfolio of patents is jointly held with external companies or research institutes.

One third of these patents are licensed to companies who sell these technologies for Group Business Units as well as on international markets.

It should also be noted that there has been an increase in the number of software end user licenses granted to third parties. This software is developed by the CRIGEN and includes applications for the financial economy (Quantistock, Opti-Atm, etc.), simulation of physical phenomena (LNGMASTER, Gaspack, Prepre2, etc.), network management models (Carpathe, Bambou, etc.), and surveillance and analysis (Ramces, etc.).

Domain names are purchased on a centralized basis. A large number of names were purchased in 2008 for a total of over 1,800 in the portfolio.

• **SUEZ Environnement**

SUEZ Environnement places the greatest importance on the development and protection of its industrial property assets, brands and particularly its patents. The Group strongly believes that these assets contribute to the added value of the services it offers to its clients. The Group's protection of intellectual property is handled by a central unit based at Degrémont.

The Group possesses a portfolio of 301 patent categories.

In 2008, the Group filed 23 patents. The Group filed 14 patents in 2007 and 18 patents in 2005.

Patents are filed under SUEZ Environnement or under the names of its subsidiaries, such as Degrémont, Lyonnaise des Eaux France, SITA France or Safege. They cover all the water and waste businesses.

Patents are generally filed in the home country, then a request is submitted for an extension to national patents under the Patent Cooperation Treaty.

The Group holds about 2,000 national patents filed in over 70 countries.

Patentable inventions may come from a number of sources:

- Group Research Centers,
- pooling of research resources within the Group (R+i Alliance, etc.),
- one-off collaborations with partners (universities, laboratories, etc.),
- operational subsidiaries (patent generally first filed by the subsidiary, extensions are then handled by the Group after transfer).

These patents protect products, for example a biological reactor used to treat wastewater or household trash cans that compress waste. They also protect processes, for instance the treatment of wastewater from small communities in reed beds or the treatment of rainwater for large cities. Major efforts are made to protect operating techniques for plants or services: many patents involve captors, regulation, or the optimization of operations.

As regards the environment, an area where competition is fierce, the protection offered by patents is essential to apply the innovations of the R&D department in the long term. However, much of the expertise remains protected by confidentiality laws.

Procedures are implemented to reassess patents based on the businesses, so that only those patents covering an existing market are kept.

This portfolio, with its wide variety of patents, is an important and reliable intangible asset.

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**11.2.2 BRANDS**

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In 2008, Research and Innovation filed the GDF SUEZ (word and semi-figurative) trademarks and GDF SUEZ with its slogan “Rediscovering Energy” in different languages across the world (over 60 brands). The year 2008 saw the merger of the portfolio of the Gaz de France and SUEZ brands (just under 2,000 brands).

SUEZ Environnement had about 500 brands at December 31, 2008.

As part of the Spin-off, SUEZ and SUEZ Environnement signed a brand license agreement described in Section 16.2.1 of this Reference Document.

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## INFORMATION ON TRENDS

See sections 6.1.2 and 9.8.

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