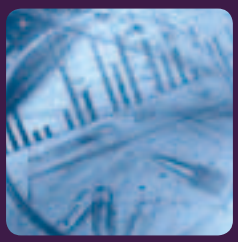
COMMISSION
DE RÉGULATION
DE L'ÉNERGIE



Activity Report

1 July to 31 December 2008

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Message from the College

Philippe de Ladoucette,
Chairman

Michel Lapeyre,
Vice-Chairman

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Vice-Chairman

This Activity Report follows the July 2007-June 2008 report, covering the second half of 2008. Further reports will encompass the entire calendar year, and will therefore be more relevant to the economic and financial environment which is unavoidably shaping the energy sector.

The previous CRE Activity Report was concluded at a time when the financial crisis and the ensuing recession were not yet fully clear. The period covered by this activity report is characterised by a world in crisis and increased demand for regulation.

While the electricity and gas markets remain dominated by offers with regulated retail tariffs, significant progress has been made in providing customers with a more competitive market in 2008.

On the household retail market, the market share of alternative suppliers considerably increased in 2008:

- for electricity, out of a total of 29.7 million sites, 692,000 were customers of an alternative supplier as of 31 December 2008, compared to 31,000 on 31 December 2007;
- for gas, out of a total of 10.8 million sites, 416,000 were customers of an alternative supplier as of 31 December 2008, compared to 54,000 on 31 December 2007.

The increase continued at a steady rate in the first term of 2009: the number of household customers having signed a contract with an alternative supplier is expected to exceed a million for electricity and half a million for gas.

On the non-household customer market, demand for market-based contracts has stabilised as regards electricity, due essentially to the transitional regulated tariff for balancing markets (TaRTAM), but has continued to increase as regards gas.

Operators' vision is clouded by the legal uncertainty currently hanging over regulated retail tariffs. CRE has called legislators' attention to the need to maintain the principle of reversibility on the household customer segment, as other Member States have done, as long as regulated retail tariffs continue to exist alongside open-market prices. Reversibility must be maintained to secure the alternative suppliers' customer portfolio. Moreover, it must be accompanied by measures that contribute to the development of competitive offers.

CRE has promoted greater transparency in the establishment of regulated retail tariffs for the sale of natural gas by publishing the variables in the equation used to calculate trends in GDF Suez's supply costs. It has also approved a draft decree that would improve the decision-making process used to deal with evolutions in regulated tariffs for gas. CRE regrets that this decree has not yet been published.

The main challenge alternative suppliers face remains that of access to resources under competitive conditions. Concentration has, in fact, worsened in power generation and in access to gas resources. The French wholesale electricity and gas markets continue to display high concentration, low liquidity and insufficient transparency. These structural deficiencies explain why legislators have entrusted CRE with the responsibility for monitoring wholesale markets. The first market monitoring report, of the year 2007, was made public in January 2009.

The year 2008 was marked by intense activity regarding tariffs, focussed along two lines. Firstly, considerations involved almost all networks, which now, or soon will, have new tariffs. Secondly, these new tariffs will benefit from an important innovation: the introduction of incentives to encourage system operators to provide customers with more efficient services at a better price.

This activity report gives a detailed description of the financial method governing the implementation of the regulation framework. The tariffs proposed are set to cover depreciation and return on invested capital. The tariff regulation framework adopted by CRE is designed to avoid insufficient investment in grid and network infrastructures and ensures that users will only pay for investments actually made by operators. In the context of the current economic downturn, this framework also provides operators with a return on employed capital which is appropriate for a limited-risk profile. These features are intended to enhance the reliability of forecasted financial flows. Nonetheless, certain safeguards are necessary: the regulator should now ensure that decisions taken by shareholders are supervised and do not jeopardise the operators' financial strength nor their ability to carry out investment plans. For this purpose, it would be useful to endow the regulator with the authority to approve the total amount of investment in electricity distribution grids. As a complement to the essential role played by concession-granting authorities and working in cooperation with them, by being granted this authority, the regulator would be able to check that investments correspond to needs and to ensure that any investments taken into account when setting tariffs for the use of public electricity grids have actually been made.

Jean-Paul Aghetti

For regulation to have a full impact on markets in ensuring they run correctly, regulated retail tariffs for electricity and gas, in compliance with the law, must also cover any costs relating to the use of networks, as well as power generation costs and natural gas procurement costs. In parallel, in view of providing customers with optimal information, the final customer's invoice must clearly indicate which portion is allocated to supply and which is allocated to the grid or network.

Éric Dyèvre

In compliance with European Union legislation, the energy required to cover line losses on electricity grids must be purchased according to competitive, non-discriminatory and transparent procedures, such as public consultations or appeal to Power Exchanges. French law has chosen to entrust system operators with the responsibility for purchasing these losses. Given the considerable financial amounts involved, these purchases represent a decisive factor in setting the tariff for use of the public electricity grid (TURPE). Whilst establishing the tariff for TURPE 3, requests to change the current system were voiced, in view of reducing the impact of line losses on purchasing tariffs. That is why CRE set up a "Losses" workgroup, consisting of recognised experts, in charge of proposing changes in line loss compensation arrangements that could be taken into account in TURPE 4 tariffs.

The numerous power outages that occurred in the winter of 2008-2009, following heavy snowfall and storms, revealed the poor state of public electricity distribution grids due to insufficient investment between 1998 and 2005. These outages confirmed the urgent need for a significant increase in investment. This demand was taken into account in the TURPE 3 proposal prepared by CRE. Nevertheless, to thoroughly analyse needs in terms of distribution grid renewal and maintenance policy, CRE decided it was necessary to set up an "Electricity Distribution Quality" workgroup, whose conclusions will be presented in the fall of 2009.

Hughes Hourdin

Objectives set in the Energy & Climate Package at the Environment Round Table to control energy demand and fight global warming must be translated to the price of energy. For electricity, time differentiation in pricing for use of the grid, starting with TURPE 3 tariffs, contributes to this policy by setting tariffs according to the period in which power is consumed, thereby providing incentive for a more rational use of electricity. Likewise, the structure of regulated retail tariffs should also be completely revised.

The development of smart metering systems, an initiative launched and directed by CRE, carried out by ERDF, will also constitute a major advance in the management of energy demand. In general, these systems are expected to shape the electricity market in the long run: not only will they renew opportunities for opening-up the market to

competition in terms of supply-side diversity, they will also serve as consumption load-balancing tools and allow optimal management of increasingly decentralised flows. CRE will be keeping a close watch on how ERDF manages and communicates on this project to ensure that it remains completely neutral.

France's set objective in terms of generating electricity from renewable energy sources encourages considerable development of all technologies involved. But this process must be conducted under feasible economic and ecologic conditions. That is why, in the opinion delivered on 30 October 2008 relative to the draft decree defining the conditions for purchasing wind electricity, CRE was not in favour of the purchase price, which was considered excessive. Moreover, it is imperative that these new sources of power generation, often decentralised, be connected safely and reliably to existing electricity grids. With this in mind, CRE is working to change operating rules applicable to the European power system for better integration of these power sources. On a national level, it ensures that legal, technical and financial conditions are appropriate for grid connection.

System operators are a core element in the market integration process and their independence is essential to ensuring that the internal gas and electricity market runs smoothly.

In 2008, although France was slightly behind, subsidiary distribution system operators were established, thereby completing transposition of the 2003 directives on internal electricity and gas markets which imposed unbundling competitive activities from regulated monopoly activities. While the degree of independence displayed by electricity and gas system operators in France has proven, to date, satisfactory, CRE has nonetheless noticed a deterioration of this state of independence that it feels compelled to denounce. The restrictions on independence that integrated corporations impose, to a greater or lesser extent, on their system-operating subsidiaries, in terms of financing or communication, are unacceptable in view of EU and national regulations.

CRE is therefore pleased to state that the Third Energy Package on the internal electricity and gas market, finally adopted, clarifies and details the conditions of independence of system operators.

In the two years of discussions on the Third Energy Package, debates were often centred around the issue of unbundling transmission activities from generation and supply activities within vertically integrated groups. In fact, ownership unbundling is only optional and alternative unbundling procedures are accompanied by a clear reinforcement of national regulation authorities' powers, giving them the authority to monitor compliance with regulations on accounting, management and professional ethics, and to guarantee the independence of transmission system operators (TSOs). Distribution system operators are also subject to reinforced monitoring by regulators.

The gas crisis between Russia and Ukraine at the beginning of 2009 highlighted the problems that can result from insufficient interconnection and isolation of various national markets. Simply lining up national markets side-by-side, even after liberalisation, is not enough: as regards both gas and electricity, cross-border interconnections are essential to building the internal energy market. The Third Energy Package therefore provides for the creation of an Agency for the Cooperation of Energy Regulators (ACER), a step towards greater integration. ACER, operational as of 2010, will contribute to resolving cross-border disputes and to introducing new, standardised system codes that will be legally binding for TSOs.

The various texts in the Third Energy Package also reinforce the fundamental role national regulatory authorities have in the process of building the internal market. They have been endowed with greater independence and extended authority to intervene in system regulation and market operations, as well as in consumer protection.

Jean-Christophe Le Duigou

Pascal Lorot

Emmanuel Rodriguez

Introduction to **CRE** and **CoRDiS**

The law of 7 December 2006 relative to the energy sector completes the provisions ensuring transposition of the European Directives of 26 June 2003, especially those measures relating to full opening of the electricity and natural gas markets to competition as from 1 July 2007. This law extended CRE's authority.

1. CRE's powers and organisation

1.1. Powers

According to Article 28 of the Act of 10 February 2000, and within the meaning of Article 5 of the Act of 7 December 2006, CRE's remit is to "assist in ensuring the proper operation of the electricity and natural gas markets to benefit the final customer. In particular, CRE ensures that the conditions of access to electricity and natural gas transmission and distribution networks do not impede the development of competition. It monitors, for the electricity and natural gas sectors, all transactions made between suppliers, traders and producers, all transactions made on the organised markets and cross-border trading. It ensures that bids made by suppliers, traders and producers are consistent with their financial and technical requirements" **INSETS ❶ AND ❷.**

INSET ❶
CRE'S MAIN POWERS (EXCEPT CORDIS' POWERS)

- Power to propose tariffs:
  - for the use of electricity and gas transmission and distribution networks and access to LNG facilities;
  - for the complementary services provided by electricity system operators.
- Power to propose cost levels:
  - for electricity public service;
  - related to the transitional regulated tariff (TaRTAM) applicable only in the electricity sector;
  - of costs assignable to the social hardship tariff for electricity and the special solidarity tariff for gas.
- Power to approve:
  - investment programmes defined by electricity and gas transmission system operators;
  - the rules relative to account unbundling in the electricity and gas sectors:
    - > between supply, transmission and distribution activities
    - > between supply to customers who have exercised their eligibility and those who have not
  - the rules for presenting supply and demand programmes prior to launching and the balancing proposals submitted to the electricity transmission grid operator;
  - billing tariff scales for connecting users to the public electricity distribution grids.
- Ancillary regulatory power in electricity and gas sectors relative to:
  - conditions for connecting users to networks;
  - conditions for using networks.
- Monitoring wholesale markets and conducting inquiries on operators as necessary to accomplish its duties.
- Organising calls for tender decided by the French Ministry for Energy to develop new electricity generating facilities and giving its opinion on companies submitting bids.
- Providing its opinion on regulated tariffs for electricity and gas.

The Law of 7 December 2006 relative to the energy sector extends CRE's regulatory authority to include the gas sector. It monitors the implementation of and compliance with regulations giving customers the right to choose their supplier in a competitive market, allowing new suppliers to enter the market.

1.1.1. CRE monitors the conditions of access to gas and electricity transmission and distribution networks and infrastructure

CRE is responsible for ensuring fair and equitable access to the public electricity and gas transmission and distribution networks and to liquefied natural gas (LNG) facilities. Competition can only come into play if all energy suppliers have transparent and non-discriminatory access to all the networks, structures and facilities in the energy transportation chain through to the final customer. Access must be transparent and non-discriminatory.

Within this context, CRE submits tariff proposals to the government for the use of networks and infrastructure, excluding storage.

CRE also ensures the development and reliable operation of networks. For this purpose, CRE approves the investment programmes defined by electricity and natural gas transmission system operators. It also approves the principles applicable to legal and accounting unbundling of transmission, distribution and supply activities. Each year, it publishes a report on compliance with codes of good conduct and the independence of electricity and natural gas system operators.

1.1.2. CRE monitors the markets

CRE is in charge of monitoring transactions carried out on the organised and non-organised wholesale markets, as well as cross-border trading. Market monitoring entails checking that price structures are the result of fair competition. CRE analyses prices and players' decisions in order to detect any behaviour which may appear suspicious and might indicate price manipulation. Effective monitoring reassures participants, encouraging the development of transactions and reinforcing the market's ability to give relevant price signals. Confidence in how prices are set is also a determining factor for investors.

1.1.3. CRE participates in implementing measures on public service obligations in the energy sector

In particular:
- purchase obligations imposed on incumbent suppliers in order to develop co-generation and renewable energy sources, in the case of electricity;
- the social hardship tariff for electricity and the special solidarity tariff applied to gas;
- national equalising system relative to power generation costs in non-interconnected territories.

1.2. Organisation

Pursuant to the Law of 10 February 2000, as modified by the Law of 7 December 2006, CRE now has a College of Commissioners and a Standing Committee for Dispute Settlement and Sanctions (CoRDiS). CRE is composed of departments that come under the

INSET 2
TYPES OF DELIBERATION ADOPTED BY CRE

- **Decisions:** deliberation notified to parties. These decisions are legally binding and the parties concerned are liable to sanctions if they fail to comply.
- **Proposals:** deliberation addressed to the government (tariffs for access to networks and public electricity service costs). These proposals are made public when the government's decision is published in France's Official Journal.
- **Opinions:** deliberation addressed to the government regarding draft texts. CRE's opinions are not binding on the government. They are made public when the government's decision is published in France's Official Journal.
- **Communications:** deliberation in which CRE makes its position known on a subject that comes within its remit.

authority of the Chairman – or, in the case of missions assigned to CoRDiS, under the authority of the Committee Chairman – and directed by the Managing Director.

1.2.1. The College

As from the Law of 7 December 2006, the College of Commissioners comprises nine members:

- the College Chairman, appointed in 2006 by decree of the French President. In the future, in application of the Law of 2006, appointment of the Chairman will be subject to the opinion of the French National Assembly and Senate committees competent in this matter;
- two vice-chairmen appointed by the President of the National Assembly and the President of the Senate;
- two members appointed respectively by the President of the National Assembly and the President of the Senate;
- one member appointed by the Chairman of the Economic and Social Council;
- one member appointed by decree;
- two representatives of electricity and natural gas customers, added in application of the Law of 2006, appointed by decree at the beginning of 2007.

Members of the College are appointed for a term of six years. Their mandate cannot be revoked or renewed.

In March and April 2008, the College was partially renewed; it was the first renewal since the Law of 2006. This law ultimately allowed the College, which initially included only full-time members, to include only three full-time members (the chairman and the two vice-chairman) and six part-time members. To implement this new arrangement gradually, the two members of the College whose terms of office had expired and who exercised their duties on a full-time basis, were replaced by two new members who exercise their duties on a part-time basis. CRE's College is therefore currently composed of five full-time members and four part-time members. Only after the next renewal will it achieve the final balance provided by law.

In accordance with Article 35 of the Law of 10 February 2000, the members of the College, like all CRE members and employees, are completely impartial in the exercise their duties and receive no instructions from or come under the authority of any institution, person or organisation. As such, they are subject to incompatibility rules, which do nonetheless differ depending on whether a member is full-time or part-time. The offices of Chairman and the two Vice-chairmen are incompatible with any professional activity or elected office at municipal, departmental, regional, national or European level, with membership in the Economic, Social and Environmental Council and with any position in the public sector or any direct or indirect interests held in the energy sector. The offices of all the other members of the College are incompatible with elected office at national or European level and with any direct or indirect interests held in a company in the energy sector.

1.2.2. CoRDiS

1.2.2.1. Founding of CoRDiS

CoRDiS, which is distinct from the College of Commissioners, was created by the Law of 7 December 2006 relative to the energy sector.

It was set up as the result of an amendment put forward by the French Senate's Standing Committee for Economic Affairs. According to a report by Senate member Patrice Gélard, this committee's studies revealed that CRE, in failing to separate its duties regarding regulation, examination and implementation of sanction procedures, risked being in violation of the requirements relative to the right to a fair trial set out under Article 6 of the European Convention on Human Rights (ECHR) and, more particularly, of the principles of independence and impartiality set out in the first paragraph. To resolve this, two options were examined by the Senate Standing Committee: first, to increase the number of College members so that, within the framework of a sanctions procedure, the people responsible for decisions are not involved in the complaints examination procedure; or, second, to set up a separate body responsible for settling disputes and sanctions.

The Standing Committee for Economic Affairs did not think that increasing the number of members of the College would be advisable, so it decided to propose an amendment to set up a special body within CRE.

Article 5 of the Law of 7 December 2006 conferred upon CoRDiS the duties formerly attributed to CRE insofar as regards dispute settlement and sanctions (Articles 38 and 40 of the Law of 10 February 2000).

1.2.2.2. Members of CoRDiS

Article 5 of the Law of 7 December 2006 states that the committee will have four members: "two Councillors of State appointed by the Vice-President of the Council of State (Conseil d'Etat), and two Councillors from the Supreme Civil Court (Cour de cassation) appointed by the First President of the Supreme Civil Court". On 18 December 2006, the First President of the Supreme Civil Court appointed Ms Dominique Guirimand and Ms Jacqueline Riffault-Silk, and, on 5 February 2007, the Vice-President of the Council of State appointed Mr Pierre-François Racine and Mr Jean-Claude Hassan as the members of CoRDiS.

The members of CoRDiS are appointed for a period of six years, except in the case of its initial set-up, for which the term of office of two of its members, drawn by lots, is set at three years. At the CoRDiS meeting on 28 February 2007, this draw attributed a three-year term of office to Jacqueline Riffault-Silk and Jean-Claude Hassan. Pursuant to the Decree of 15 February 2007, Pierre-François Racine was appointed Chairman of CoRDiS.

1.2.3. Departments

See the CRE organisation chart to the right.

1.3. CRE's activity in figures

Between 1 June 2008 and 31 December 2008, the CRE College held 137 sessions resulting in 105 proceedings TABLE 1.

CRE proceedings are made public on its web site, except for those involving confidential information protected by law.

1.4. Budget resources

The Commission's budget resources are allocated in the French State budget. Under the heading "Economy", they fall in the "Business and Employment Development" programme and constitute "Energy Market Regulation and Monitoring" activities.

The budgets attributed to CRE by successive finance laws since 2006 have not been sufficient to face the challenges resulting from full opening to market competition and the additional missions required by the Law of 7 December 2006. During this period, this was reflected in the need for additional operating funds, which could only be resolved through makeshift budget measures, and the pressing need for additional staff to fulfil these new missions.

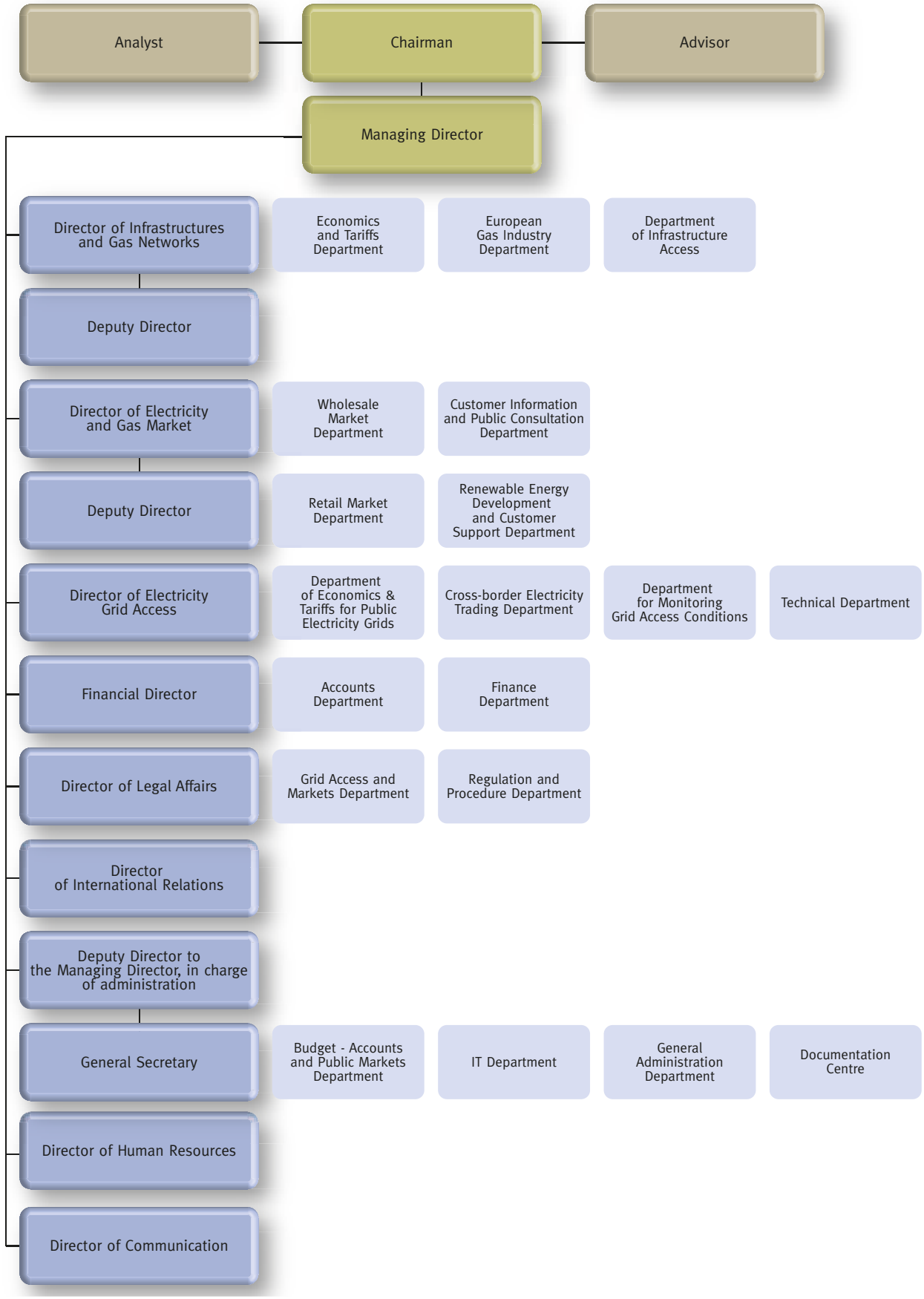
In 2009, the budget granted to CRE by the initial budget act (outside of any budgetary regulation measures) is €19.9 million, of which €11.8 million is allocated to personnel costs for a ceiling of 131 employees, unchanged from 2008, and €8.1 million allocated to operations, also unchanged from 2008.

TABLE 1
CRE ACTIVITY IN FIGURES
FROM 1 JUNE 2008 TO 31 DECEMBER 2008

	Gas	Electricity	Gas and Electricity	Total
Hearings	88	155	-	243
Opinions	75	7	-	82
Communications	1	-	-	1
Public consultations	3	4	-	7
Decisions	9	7	1	17
Comments to the French competition authority	-	1	-	1
Proposals	2	4	-	6
Dispute settlements	1	2	-	3

Source: CRE

CRE ORGANISATION CHART ON 31 DECEMBER 2008



These measures, in terms of allocations for operations and staffing, are inadequate, given that the extension of CRE's obligations since 2006 has resulted in growing activity in the context of the new Community legislative package that will be adopted in 2009.

The structural deficit in CRE's operating budget cannot continue to be dealt with through limited, random measures, as concluded in a 2008 audit report from the French Court of Auditors (the *Cour des Comptes*).

Stabilising a structurally balanced budget is therefore essential in order for CRE to fulfil its obligations and contend with the consequences that its extended responsibilities will have on the 2010 and future budgets.

Draft directives plan to reinforce the authority of national energy regulators in order to strengthen their role in monitoring system operators, monitoring markets opening to competition and promoting effective competition in cooperation with competition authorities, while also ensuring full protection for customers.

A draft EU regulation proposes to create an Agency for the Cooperation of Energy Regulators (ACER), which will receive consultancy services from national regulators.

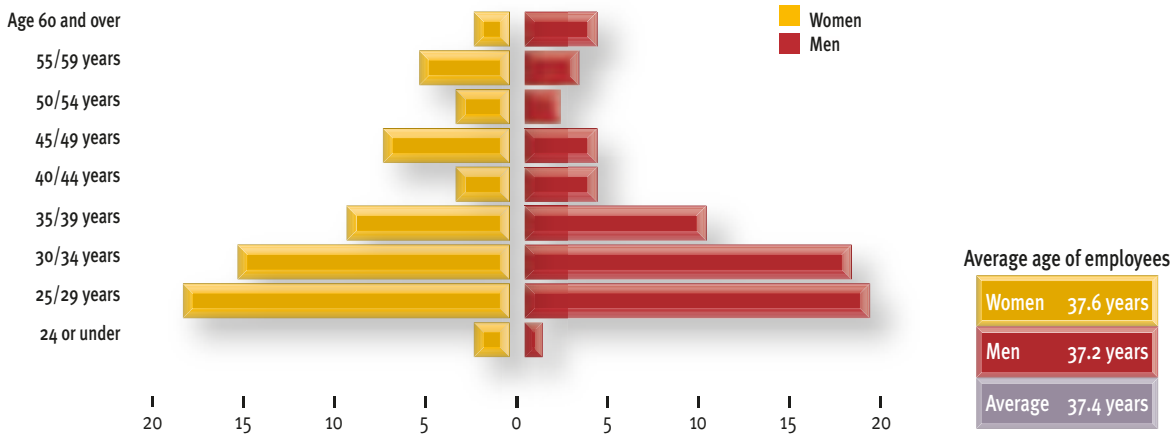
New European Union measures also anticipate increasing the independence of national regulators, a fundamental condition for gaining market trust. The regulation proposes that "regulatory authorities be endowed with legal personality, budgetary independence, appropriate human and financial resources and self-governing management".

1.5. Personnel

The number of full-time equivalent personnel working for CRE rose from 117 employees at the end of 2006 to 120 at the end of 2007 and to 129 as of 31 December 2008. This includes four trainees working under short-term contracts.

In 2008, 84% of personnel were management-level staff. The proportion of women and men was nearly equal (64 women and 65 men). The average age was 37.4. The average length of service was 2.7 years FIGURE 1.

FIGURE 1
AGE PYRAMID AND AVERAGE AGE OF EMPLOYEES



Source: CRE

86% of staff is under contract, with over a third coming from energy sector companies, the other 14% consisting of civil servants.

The employees' broad range of professional backgrounds (business, consultancies, universities, other regulatory bodies, etc.), their technical expertise and the wealth of their experience must be emphasised. CRE's authority and responsibilities mean that it requires a high level of expertise in the field of energy, as well as in financial and legal auditing. Recruited employees therefore boast a very high level of education and usually have many years of experience behind them (currently only 21 CRE employees are in their first job). The majority are graduates from selective universities specialised in engineering or business administration, or come from auditing firms.

Nearly 80% of staff is directly assigned to regulation duties and perform jobs related to CRE's specialist activities (engineers, economists, technical economists, financial and legal experts), while 20% is involved in support jobs (administration, accounts, IT, etc.). A human resources directorate was created in 2008.

A proactive and continuous training policy ensures that skills are continuously updated to deal with changing regulatory duties, to improve personal performance (IT skills and foreign languages) and to support employees' career development plans, including courses that result in recognised diplomas related to CRE activities. In 2008, 60% of CRE personnel participated in one or more training courses.

CRE's pay policy is based on recognition for professional ability (level of training and experience) and takes into account the level of responsibility held as well as the effort made by each employee to achieve planned objectives. In 2008, average gross annual salaries, including bonuses, were as follows: €34,800 for non-managerial and administrative staff, €46,000 for special analysts, €66,300 for heads of department and €117,600 for directors.

2. CoRDiS' activity

In the second half of 2008, three cases were referred to CoRDiS, but only one resulted in a decision. The two others ended with withdrawal of the parties, since referral to the committee no doubt contributed to finding compromise solutions.

The cases submitted to CoRDiS involved conditions for the transfer of storage capacities, during supplier switching, and the gas they contained (CRE, CoRDiS, withdrawal decision of 5 September 2008, Altergaz), financing connection work on a residential building (CRE, CoRDiS, withdrawal decision of 14 November 2008, Mr and Mrs Neret) and performance of a contract for access to the public transmission grid (CRE, CoRDiS, 15 December 2008, Condat).

2.1. Admissibility

The CoRDiS decision of 15 December 2008, which opposed Condat and RTE, helped specify conditions for referral to the committee.

In this case, RTE maintained that since Condat did not comply with the preliminary proceedings set out in Article 12.6 of the general terms and conditions of the access to the public transmission grid contract (CART), its request was not admissible.

CoRDiS held that, first, Condat, having sent a letter to RTE on 3 July 2008 stating its claim and offering to hold an amicable meeting according to the terms of the contract and, second, that since no agreement was reached in the 30 days following this notification, Condat's referral to CoRDiS on 16 September 2008 was admissible.

2.2. Fundamental issues

Article 38 of the Law of 10 February 2000 provides CoRDiS with the power to rule on the technical and financial aspects of disputes related to access to networks, structures, facilities or their use. It follows

that two cumulative criteria must be met for CoRDiS to have the authority to settle a dispute.

First, a structural criterion relating to the capacity of the parties: the dispute must involve a system operator and a system user. Next, a material criterion relating to the object of the dispute: it must involve access to or use of the network or facilities.

2.2.1. Third-party access to natural gas storage facilities

On 7 July 2008, Altergaz filed a case with CoRDiS to settle a dispute involving the conditions for transfer of gas and storage capacity to a new supplier when switching suppliers.

While the parties have withdrawn, it is important to underline problems related to storage access, involving a transfer of storage capacity when a final customer switches suppliers. The first problem is setting the date for transfer of storage capacity from the old to the new supplier. To date, regulations provide for two allocations per year, one on 1 April, and the other on 1 November [1]. Finding the number of allocations inadequate, Altergaz contested the legality of this point and requested that CoRDiS display it.

While the committee did not have the opportunity to rule on this issue, the question is regularly asked whether, for a reliable and fluid gas market, a system which allocates storage capacity twice a year is adapted to a competitive market.

The second issue raised by this case involves the transfer of gas contained in the storage facilities. This question is divided into two sub-questions: the principles to be used for calculating the transfer price and the role of the storage facility operator in the transfer process.

Discussions underway in the working group led by the Ministry, in which CRE is represented, should lead to the drafting of an annex to the contract with TIGF (gas transmission system operator, subsidiary of Total) called "Method for Transferring Stored Gas". This annex will define the principles for transferring capacity by indicating the price calculation method, setting the transfer periods and specifying the operator's role.

CRE considers that in the current gas market and, given that network technical constraints make more frequent allocation of capacity unfeasible, the transfer of storage capacity cannot be dissociated from transfer of the stored gas. Storage operators must therefore guarantee the transfer of stored gas to all users with complete transparency and without discrimination at a price that reflects the cost of the inventory investment.

In addition, the annex to the storage contract regarding "Rules for Allocating Storage Capacity" is currently being drafted by TIGF in cooperation with suppliers and will be validated by the minister.

To date, the annex on "Rules for Allocating Storage Capacity" stipulates that when a customer switches supplier, the customer's storage rights are attributed to the new supplier while deducting them from the capacity able to be released of all TIGF storage facility users.

The question that arises is whether these rights should be deducted from the storage rights held by the former supplier or from the capacity able to be released held by all infrastructure users.

In this matter, CRE recommended that when switching suppliers, the storage rights associated with the customer be deducted from the rights held by the former supplier.

(1) Decree No. 2006-1034, relative to access to natural gas underground storage facilities, and amended Order of 7 February 2007, relative to consumption profiles, storage capacity rights and rules for allocating storage capacity, approved by the Minister for Energy on 12 March 2007.

2.2.2. RTE's strengthened obligation of means regarding voltage dips

Condat, which is directly connected to the transmission grid, specialises in manufacturing wood-free coated paper. Its industrial process is very sensitive to the quality of the electrical power supply, especially voltage dips. Having decided that the power supply quality provided by RTE was insufficient, Condat referred its case to CoRDiS on 16 September 2008.

This decision gave CoRDiS the opportunity to specify the notion of effective grid access. RTE maintains that the referral was devoid of purpose since Condat, faced with a risk of significant voltage disturbance on the public transmission grid, could opt for islanding of its installations using a nearby cogeneration plant.

CoRDiS considered that these circumstances do not imply that Condat, like any other user of public electricity grids, must renounce its access to the grid, particularly outside islanding hours.

This decision also provided the opportunity for CoRDiS to assert that RTE is under a strengthened obligation of means and must therefore undertake all due diligence to find solutions to provide electrical power of regular quality to all grid users under identical situations. This obligation is all the more justified by the fact that the public electricity transmission system operator has a monopoly with regard to users of the public grid.

Acknowledging that the level of quality required by Condat exceeds what is required for "normal use" of electric power in the sense of Article 21-1 of the Law of 10 February 2000, CoRDiS considered that it could not require RTE to take measures to reinforce or secure the electricity transmission grid to prevent the losses suffered by Condat from voltage dips, without substituting RTE's strengthened obligation of means for a performance obligation.

CoRDiS nevertheless considered that it is RTE's responsibility, under its strengthened obligation of means, to offer its customers, according to their individual characteristics, a commitment to ensure improved compensation for losses resulting from recurring voltage dips. As a result, it asked RTE to offer Condat to take commitments on voltage dips so that it would compensate better for its damage.

2.2.3. End of consultation process on the new DSO-supplier contract

The third quarter was marked by the end of the consultation process on the new DSO-supplier contract.

On 7 April 2008, CoRDiS asked ERDF to change its DSO-supplier draft contract so the final customer can directly hold the system operator liable for its contract commitments.

The committee also asked ERDF to address the following three points during the consultation process set up by CRE:
- setting a reasonable response time to a customer's claim in the case of alleged losses;
- drawing up a document identifying ERDF's obligations to the customer in a perfectly clear manner;
- improving the presentation of customer guidelines.

An ad hoc "DSO-supplier" working group was set up within the 2007 "Electricity" working group.

Since consensus on the three points of the consultation process was reached on 19 September 2008, the participants moved to close the process.

2

Pursuing construction of the **internal energy market** requires **independent network operators** and **reinforced regulation**

The texts proposed by the European Commission in September 2007 take up three main issues:

- the conditions for unbundling production and supply networks within integrated companies and the new types of authority this implies for regulators;

- the reinforcement of national regulatory authorities' power;

- the creation of a European Agency for the Cooperation of Energy Regulators (ACER).

1. Independence of network operators and compliance programmes

Non-discriminatory access to transmission and distribution networks for gas and electricity is at the centre of the move within the European Union to open-up markets to competition over the last 10 years.

Discrimination is indeed a practical obstacle to market access for newcomers. Non-discrimination is, however, also essential to gain the trust of system users.

This topic was central to discussions on the Third Energy Package, intended to supplement existing directives, on asset unbundling for TSOs INSET ❸.

To guarantee non-discrimination, Community and national texts put forward commitment programmes or compliance programmes, as well as the independence of network operators.

1.1. Universally known and applied compliance programmes

Network operators have worked hard over the last four years to establish and implement compliance programmes. The current results have proven satisfactory.

To date, all network operators concerned have compliance programmes published on their web sites. These programmes specify the measures taken to guarantee to system users that discriminatory practices are prohibited and that enforcement of these measures is appropriately monitored.

To ensure the compliance programmes are applied correctly, the system operators involved have set up internal monitoring, and, for some, external monitoring. None of these audits revealed deliberate discriminatory practices, or showed that commercially-sensitive information had been intentionally disclosed. This was confirmed both by audits carried out by the CRE and by the "mystery customer" survey that it initiated.

As well as issuing these compliance programmes and monitoring their enforcement, the CRE is committed to evaluating their actual efficiency. On these grounds, the "mystery customer" surveys conducted by distribution system operators and the CRE examined how these operators receive customers. Efforts for training and informing staff, in particular for employees in contact with system users, must be increased, with regards to both non-discrimination and transparency.

1.2. Divergence in TSO independence

RTE shows a genuine desire for independence. GRTgaz, the gas transmission system operator, must strive to clarify its relationship with the parent company, especially regarding communication. TIGF, however, needs to aim for significant improvements, particularly where investment is concerned.

In terms of organisation and decision-making, electricity and natural gas TSOs show genuine independence that is well protected under current legislation.

Nevertheless, the CRE ensures this independence is not jeopardized by the parent company, particularly regarding communication and access to financial resources.

On the one hand, any information regarding topics under network operator responsibility must not be communicated in any way by the parent company. Parent companies must prohibit all communication linking competitive activity and regulated activity as well as any interference in the subsidiary's communication policy.

On the other hand, independent access of TSOs to financial resources is generally decisive in guaranteeing that those resources are appropriate for their needs and, in particular, for investment requirements.

1.3. Increasing DSO independence

The CRE annual report on the implementation of compliance programmes and the independence of electricity and natural gas network operators falls within a new context this year: DSOs supplying more than 100,000 customers must now be legally unbundled.

In this context, different projects for legal unbundling have been adopted by operators. The unbundling project that operators had the most reservations on is known as the "light DSO". In this model, the subsidiary DSO does not have the technical and human resources to intervene on the network and subcontracts these operations to the parent company. As is currently defined, the project for the Third Energy Package rules out such an option.

Whatever programme is chosen, it is advisable to implement the safeguards required to protect network operator independence and adapt them to the chosen unbundling programme. In most instances, this has not been done.

It is too early to give a final assessment of the actual independence of DSOs, in particular that of local distribution companies (LDCs) whose legal unbundling is still recent. ERDF and GrDF have taken measures to increase their independence.

The general public is for the most part unaware of DSOs and what they do. In addition, in most cases, their names and logos are too similar to those of their parent companies. This lack of public recognition, of which DSOs are aware, maintains a certain ambiguity, which is detrimental to the opening-up of markets to competition. It is therefore essential to take action to make system operators better known.

It is advisable to implement the safeguards required to protect network operator independence and adapt them to the chosen unbundling programme.

2. Reinforcing and harmonising the obligations and authority of national regulators

2.1. Negotiating the Third Energy Package

Through the common decision procedure, the European Parliament adopted on first reading several proposed texts on 18 June 2008: the "Electricity" directive, the "Electricity" and "ACER" regulations and, on 9 July, the "Gas" directive and "Gas" regulation (see the European calendar in the Appendix).

This vote pushed aside the Council positions of 6 June 2008 on ownership unbundling of transmission grids in the electricity sector by maintaining only the possibility of asset unbundling.

On 10 October 2008, the Energy Council confirmed the Member States political agreement on all measures

concerning the internal energy market. On the basis of the Council's agreement, reached on 6 June 2008, work continued under the French presidency to finalise the texts and reach a conclusion on the two matters still under discussion: the clauses on third-party countries and conditions of fair competition within the European Union INSET ❸.

2.1.1. The Third-Country Clause

The purpose of this clause is to restrict takeovers of transmission system operators (TSOs) by third countries in order to ensure the independence of the TSOs concerned and to avoid jeopardizing the security of supply of a Member State or of the entire European Union.

The text gives, as a last resort, national regulatory authorities the power to certify TSOs and to authorise investment.

2.1.2. A "Level Playing Field" clause

In September 2008, a "level playing field" clause was introduced by five Member States (Denmark, Spain, Netherlands, Poland and Portugal). It provides that Member States who opt for total unbundling of TSOs can implement national measures to guarantee that vertically integrated companies of other Member States are not authorised to take over the sector's companies within their territory. The measures will not be implemented until they have been approved by the European Commission.

INSET ❸
THE THIRD ENERGY PACKAGE AND THE REGULATOR'S ESSENTIAL ROLE IN GUARANTEEING NETWORK OPERATOR INDEPENDENCE

The Third Energy Package plans to grant TSOs greater independence.

Various alternatives concerning TSO independence have been considered. Discussions now focus on three models:

1° **Asset unbundling,** in which the network operator owns the network without being economically dependent on an electricity generator or supplier.

2° **The Independent System Operator (ISO) model,** in which the network is owned by a subsidiary of an integrated company, the subsidiary being endowed with a certain degree of independence and being responsible for financing network development and maintenance. The network is operated by a company that is not economically dependent on an electricity generator or supplier. The same company is responsible for investment decisions.

3° **The Independent Transport Operator (ITO) model** in which an integrated company owns the network, but a subsidiary of this company is responsible for operating and developing it. Strict preventive measures are implemented, under regulator control, to guarantee the independence of TSOs and non-discrimination.

The regulator's role and authority vary depending on the model. Asset unbundling implies that the regulator certifies the TSOs.

Moreover, in the ISO model, the regulator controls the investment plan and monitors the operator and owner of the network. His role is extended in the ITO model, which includes nearly 80 requirements to guarantee network operator independence (in contrast with the four requirements in the present directive). The regulator therefore has the power to oppose the principal actions of the company, the power to approve actions, in particular regarding service agreements with the parent company, and the power to monitor. In these two models, the regulator's action is the core element that guarantees the independence of TSOs.

The draft texts resulting from the Energy Council of 10 October 2008 introduce the option of choosing between the three models. If the text is adopted as it is, it is likely that the ITO model, which is closest to the present situation, will be adopted by the three French TSOs.

As regards distribution, the planned changes will strengthen requirements applicable to DSOs. This should give them the necessary technical and human resources to carry out their missions. They are also responsible for promoting a new business identity, completely distinct from existing suppliers and producers. Furthermore, the regulator would have greater authority to control the amount of resources allocated to the system operator.

The common position of the Council was officially submitted to the European Parliament in January 2009 for a second reading. This new legislative package is expected to be adopted during the first semester of 2009.

2.2. Content of the European Union Council agreement of 10 October 2008

2.2.1. Reinforcing the independence of national regulators

The new measures aim to increase regulator independence. They must be endowed with legal personality, budgetary independence and the appropriate human and financial resources.

2.2.2. Extended authority

The agreement stipulates that regulatory authorities will set or approve the tariffs for the use of transmission and distribution networks before these go into effect, or at least set or approve the method used to calculate them.

In particular, national regulatory authorities must ensure that TSOs meet their obligations and must monitor the use of income from congestion management at interconnections as well as the quality of electricity and gas supply.

The European Parliament proposes that regulators approve and modify procedures for congestion

INSET 4
CRE CONTRIBUTES TO FINDING A COMMON APPROACH TO REGULATING INTERNATIONAL ENERGY MARKETS

- Since its creation in December 2006, the CRE's chairman, Philippe de Ladoucette, has presided over the International Strategy Group (ISG) of the Council of European Energy Regulators (CEER). CEER was set up in 2000 by national energy regulators from European Union Member States and the European Economic Area.
- Within the dialog that it maintains with regulatory authorities outside the European Union, the ISG continues to concentrate on improving the security of supply, promoting the *acquis communautaire* (body of EU law), and encouraging good practice.
- During the second half of 2008, the ISG has continued to foster ties with partners. The Ukrainian regulator was invited to the ISG to discuss a cooperation project, aimed at strengthening regulation on gas distribution companies. In addition, the ISG closely monitors discussions between the EU and Russia on energy issues. The ISG has also established a cooperative framework between CEER and the African Forum for Utility Regulators (AFUR).
- Finally, the ISG has worked to set up tools and identify the financial instruments which are necessary to the implemention of CEER's cooperation strategy. The CEER database brings together a hundred experts from 27 European regulation authorities, who are willing to take part in longer-term cooperation projects. The ISG has made promising ties with the Directorate-General for Enlargement, the Directorate-General for Development and the European Commission's Europe Aid cooperation office, as well as with bilateral development aid institutions.
- The CRE takes part in Energy Community Working Group (ENC)'s activities, which consist of liaising between CEER and the bodies created by the Energy Community Treaty between the European Union and the Balkan countries. The ENC group manages relations between the regulators of these countries and helps them implement a framework that should ultimately be more adapted to European institutions and networks. The CRE actively participates in the activities of the Euro-Mediterranean Energy Regulators (MEDREG) having presided over the group dealing with institutional questions since its creation in November 2006. The first study conducted by this group was a comparison of the organisation and obligations of regulators in the region. The study in turn resulted in the adoption in November 2008 of recommendations in favour of common governance principles and a basic definition of regulatory authority to guarantee the independence of Mediterranean energy regulators. At the request of the General Assembly, the institutional group has begun to examine the issue of consumer protection in the Mediterranean region.

Regulatory authorities will set or approve tariffs for the use of transmission and distribution networks before they go into effect, or at least the method used to calculate them.

management and allocation of cross-border capacity proposed by TSOs. Regulators should also approve annual TSO investment plans.

To encourage effective competition and ensure the market operates correctly, regulators could impose measures such as the creation of virtual power plants or the transfer of gas capacity.

Finally, to protect customers, regulators must ensure that data pertaining to final customer consumption is available in a uniform format.

Without always waiting for a formal request, regulators have often taken joint, spontaneous initiatives to favour market development. This is particularly true for members of the CEER, in an international context **INSET ❹**.

3. European regulatory agency has created in a policy agreement signed by Member States

The organisation and authority of the future Agency for the Cooperation of Energy Regulators (ACER) are based on an institutional framework also found in other Community agencies, but adapted to ensure that regulators are independent from both the Council and the European Commission and from the restrictions created by the Meroni Order issued by the Court of Justice of the European Communities on 13 June 1958, which defines the European Commission's ability to delegate general authority and regulatory power.

The Agency will issue justified opinions on:
- the work programme and priorities for cooperation between TSOs;
- technical codes prepared by TSOs in a collaborative context;
- the European 10-year programme for network development.

It must also ensure that the decision-making procedures implemented to resolve cross-border issues are effective.

Under certain conditions, it will be endowed with the power to take decisions independently at a European level in two main areas: on issues relating to access and operational reliability applicable to cross-border infrastructure and on the infrastructure exemptions stipulated in Article 22 of the "Gas" directive **INSET ❺**.

INSET ❺
CRE ACTIVELY CONTRIBUTES TO REGULATORS' EFFORTS TO IMPLEMENT THE THIRD ENERGY PACKAGE AND THE TRANSITION PERIOD

⇢ On 21 October 2008, the European Regulators' Group for Electricity and Gas (ERGEG), a group created by the European Commission as part of the implementation of the 2003 directives, whose purpose is to advise and assist in the consolidation of the internal energy market, initiated a public consultation. The aim is to define the role of energy regulators during the period between the final vote on the Third Energy Package, scheduled for spring 2009, and the moment the ACER becomes operational. This consultation primarily concerns relations between national regulators, European TSOs and other Community institutions, as well as the preparation of future guidelines that will serve to define codes on grids and networks in the European Union.

⇢ The CEER Energy Package working group has created a fledgling committee consisting of six of its own members, including a representative of the CRE. This committee is responsible for laying the groundwork for the future ACER and studying all aspects of the agency's operations (internal procedures, communication, collaboration with national regulatory authorities and relations with TSOs).

3

The Regulator contributes to the **interconnection of European networks, operational reliability** and **security of supply**

The Third Energy Package proposes, in addition to the creation of an Agency for the Cooperation of Energy regulators (ACER), the establishment of a European Network of Transmission System Operators for Gas (ENTSOG) and Electricity (ENTSOE). The goal is to improve coordination of action taken by national regulators and TSOs to remove persistent obstacles to the creation of a internal market. At the same time, regulators are pursuing their efforts to reinforce operational reliability and improve operation of European infrastructure and interconnected networks.

Electricity grids

1. Regional initiatives and ERGEG's efforts contribute to building the internal market

1.1. While waiting for adoption of the Third Energy Package, ERGEG is preparing the future operating rules for electricity grids

For electricity, ERGEG has already set up a workshop on issues to be covered by operating codes.

Working through ERGEG's Electricity Network and Market Task Force (ENM), CRE is drafting recommendations regarding operational reliability, grid connection and access and integration of balancing markets. Once they have been adopted by ERGEG, these initial recommendations can serve as a working basis for the future ACER in drafting these codes.

The recommendations on operational reliability will serve to set up guidelines for drafting operating rules on interconnected power systems, for implementing the rules by European TSOs, and for rule enforcement. After public consultation in spring 2008, they were published by ERGEG on 27 November 2008.

The recommendations concerning grid connection and access must define the common requirements to be applied to all users of the European electricity grid. Drafting of these recommendations, which began in 2008 and will continue in 2009, is carried out in consultation with all stakeholders concerned.

Recommendations for integrating the balancing markets will be approved by ERGEG and submitted again for public consultation in 2009.

1.2. CRE devotes significant efforts to the electricity market integration process

Seven regions have been defined with identical priorities: harmonising and enhancing congestion management at interconnections (calculating the

capacity of available interconnections and defining capacity-allocation processes), harmonising market transparency and developing balancing energy exchanges at borders.

France participates in four of the seven regional energy initiatives defined by the European Commission (Central-West, Central-South, South-West and France-United Kingdom-Ireland).

CRE co-chairs the Regional Energy Initiative working group responsible for monitoring progress on the different regional electricity initiatives, ensuring the coherence and convergence of the different regions and defining a common vision for the future European energy market. To this end, in September 2008 ERGEG published its second regional electricity initiative coherence and convergence report, identifying the barriers to implementing the target model in each region and proposing action plans to remove them.

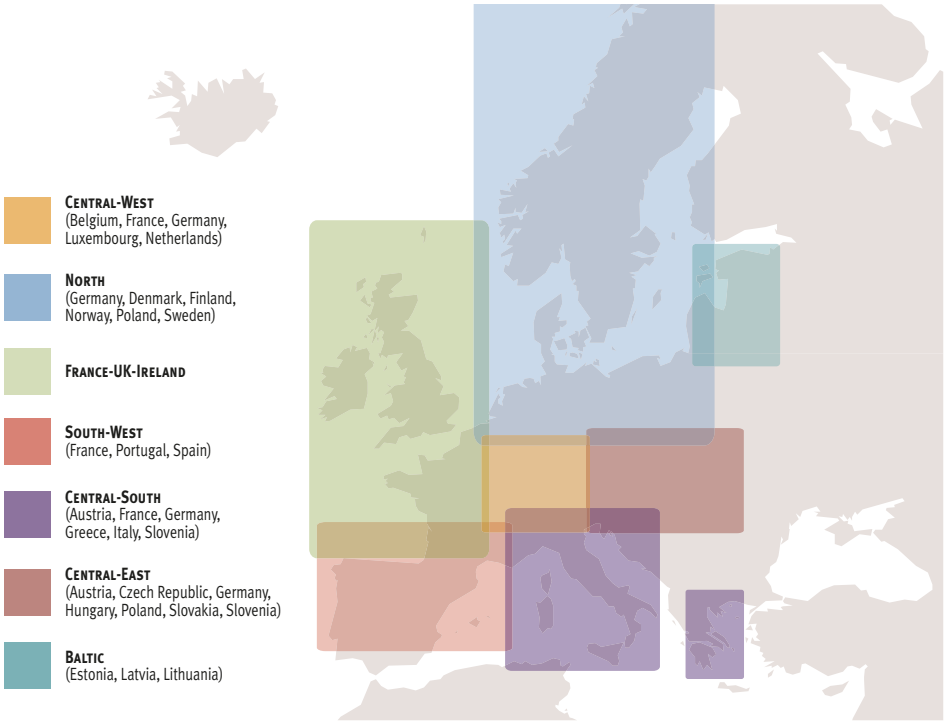
The regional energy initiative process has led to a consensus on the main principles of congestion management that would allow interconnections to be used more efficiently to meet the needs of each market.

1.2.1. Stakeholders expressed their approval in the *Interconnections* report published by CRE in June 2008

In June 2008, CRE published its second annual report on the management and use of electricity interconnections, which pursued two objectives:
- assess interconnection management in 2007 from the viewpoint of economic efficiency of cross-border exchanges over each time period (long-term, daily, intraday and balancing);
- review the model adopted in Europe and draw up the list of important questions to be resolved to reach this objective. While the main principles of this model have been clearly established, its implementation raises several questions.

The Tri-lateral coupling between the French, Belgian and Dutch markets has shown its efficiency for over two years. Over this period, prices in the three markets converged 65% of the time.

FIGURE 2
REGIONAL ELECTRICITY INITIATIVES



Source: CRE

Following the publication of this report, a public consultation was conducted and CRE set up a working group to gather the opinions of interconnection users. The stakeholders involved insist on the need to harmonise rules for allocating capacity and stress the importance of having firm knowledge of long-term capacity. They also request that priority be given to drawing up a European road map to coordinate coupling projects.

1.2.2. An important harmonisation effort and substantial improvements achieved through regional initiatives

The year 2008 was marked by a considerable harmonisation effort and significant improvements to the rules for allocating capacity at French borders, which will eventually be applied as the automatic resale mechanism of long-term capacity on the intraday market is extended to all French interconnections. The automatic resale mechanism avoids the significant transaction costs associated with the on-demand resale mechanism previously in effect for both market players and TSOs.

1.2.2.1. The Central-West region (France, Benelux and Germany)

In the Central-West region, system operators have created a common subsidiary, the Capacity Allocation Service Company for the Central West-European Electricity market (CASC-CWE), which constitutes an auction platform, unique in the region, to facilitate cross-border exchanges. A single set of rules should soon go into effect, featuring all the functionality of the CASC platform, with improvement expected in the firmness of exchange programmes, which performed poorly on the French-German border in 2007 **INSET 6**.

In addition, all stakeholders in the Central-West region are working on the market coupling project, which will extend the coupling mechanism in place between France, Belgium and the Netherlands since November 2006 to Germany.

Market coupling is a target set by ERGEG for managing day-ahead market exchanges. The Tri-Lateral Coupling (TLC), uniting the French, Belgian and Dutch markets, has shown its ability to operate efficiently for over two years: prices in the three markets converged 65% of the time over this period. CRE estimates the collective gain from extending the coupling principle to all French borders at €330 million per year, one-third of this contributed by the France-Germany interconnection.

The proposed extension of TLC to Germany should be in place in 2010. Several months of intense study are still necessary, due to the complexity involved in modelling the dense electricity grid in this region.

INSET 6
ERGEG'S POSITION ON EXCHANGE PROGRAMME FIRMNESS

- CRE warned the European Commission of problems concerning French-German interconnection management in December 2007. Without consulting CRE, German grid operators RWE netz and EnBW netz published new allocation rules for the French-German interconnection which led to degraded service for market players.
- This unilateral change abandoned the principle of exchange programme firmness: these programmes, in which the quantity of energy to be transmitted through the interconnections is declared on a day-ahead basis by interconnection users, were no longer firm. This means that system operators could reduce their programmes, without pleading force majeure. On the other continental French interconnections, and on most interconnections in Europe, exchange programmes are firm (except in the case of *force majeure).*
- Following this alert, the European Commission requested ERGEG to take up the case and find a workable solution for all interconnections in Europe. ERGEG's effort resulted in an official document published in July 2008 which considers that system operators must guarantee exchange programme firmness except in the case of *force majeure.*

1.2.2.2. The South-West region (Iberian peninsula)

In the South-West region, a new common set of rules for capacity allocation on the French-Spanish interconnection comes into effect on 1 May 2009. The regulators' proposal to compensate the price differential in the case of a reduction in long-term allocated capacity was accepted INSET 7.

As for transparency, regional regulators undertook a comparative analysis of TSO compliance with Article 5 of the annex to Regulation 1228/2003. A report was presented by the regulators and submitted for public consultation. The points of non-compliance were presented and Spanish, Portuguese and French system operators agreed to achieve complete compliance by the beginning of 2009.

1.2.2.3. The Central-South region (Italian and German borders)

In the Central-South region, a common set of allocation rules will go into effect in 2009 for all Italian borders. It was approved by all regulators concerned.

Today, the creation of a single capacity allocation platform is under discussion. However, the parties have not yet agreed on the platform status or the number of interconnections that it will cover.

A transparency report was drafted by regulators. It proposes a common interpretation concerning the level of transparency that must be offered to the market. In contrast with reports published in other regions, this one asks that by 2010, system operators provide greater transparency on the cause of constraints limiting interconnection capacity.

1.2.2.4. The France-United Kingdom-Ireland region

In the France-UK-Ireland region, the British (National Grid) and French (RTE) system operators are drafting a new platform for allocating short- and long-term capacity, with a set of rules that complies with European regulations and harmonises with rules in effect on other French borders. The new rules will go into effect in 2009.

1.2.2.5. Introducing market integration incentives

ERGEG's second compliance report stressed the necessity of setting up incentives so that system operators maximise interconnection capacity.

The European Commission has proposed that national regulatory authorities give system operators short- and long-term incentives to accelerate market integration.

INSET 7
COMPENSATING PRICE DIFFERENTIAL FOR A REDUCTION IN ALLOCATED LONG-TERM CAPACITY

- If allocated long-term capacity is reduced before the nomination stage, a stakeholder deprived of its transmission right must balance this out by selling the energy on the source market and buying an equivalent quantity on the target market. Its loss, directly related to the reduction, is therefore the price differential between the two markets. With a reduction compensation scheme based on the market price differential, long-term capacity would be "financially firm".
- Interconnection users have requested financial firmness for capacity for several years. This request has been met with reluctance from system operators and certain regulators. While the presence of financial firmness, in theory, increases capacity auction income (since a firm product has greater value), it transfers the financial risk of market player reductions to the tariff paid by grid users.
- CRE proposed to experiment with "financial firmness" on the French-Spanish interconnection with ceilings on the total sum and the size of the price differential.

The European Commission has gone further by proposing that national regulatory authorities give system operators short- and long-term incentives to accelerate market integration.

The introduction of ad hoc incentives to maximise the level of interconnection capacity and accelerate the introduction of target mechanisms is therefore currently being studied by ERGEG. Work is being conducted by a sub-group of CRE's ENM Task Force.

1.2.2.6. Gradual integration of balancing mechanisms

A concrete project to develop balancing exchanges in the France-UK-Ireland region has been under consideration since 2007. RTE and National Grid have proposed a balancing exchange model for the France-UK interconnection. CRE and the Office of the Gas and Electricity Markets (OFGEM), the British regulator, consider that this proposal will provide reciprocal access to national balancing markets and encourage efficiency and competition in both. Regulators approved this proposal in April 2008. The plan should be fully operational by November 2009.

2. Regulators intervene to improve operational reliability and security of supply on interconnected European electricity grids

Programming and balancing mechanisms for electricity transmission grids will provide RTE with new resources for balancing flow on the electricity grid.

2.1. Customers take a more active part in the balancing mechanism on the electricity grid

Two projects are underway to study how demand management applied through the balancing mechanism can serve to generate revenue.

The first involves sites connected to public distribution grids. At these low-power sites, load reductions implemented individually at each site have a very limited impact. It is therefore necessary to group a number of sites together and coordinate load reductions. This is referred to as "balancing action". On 5 December 2007, CRE approved an experimental project to test whether economic gains could be generated through these balancing actions on the balancing market. The communication and power consumption instruments required to implement balancing actions are currently being introduced to customers.

The second project involves sites connected to public transmission grids. On 2 April 2008, CRE approved RTE's proposed contractual reservation for load reduction by customers connected to the public transmission grid. A call to tender was initiated in spring 2008 to ensure that customer demand was available on the balancing market to reinforce system reliability and ease peak loads. Thirteen companies applied and six were chosen. In exchange for financial compensation, the selected customers agreed to offer the contractual load reduction on the balancing market if so requested by RTE. These new resources have been available to RTE since 1 October 2008.

2.2. Setting up the "BALIT" project for balancing exchange between France and Great Britain

The BALIT project (Balancing Inter TSO) aims to increase resources available to RTE by allowing it to accept and use balancing offers from British market players through the British system operator. This project will increase competition on the balancing market by allowing system operators to exchange reserves that exceed the amount required to maintain system security in each country.

The new balancing resources will be fully available to RTE in November 2009. Setting up the proposed balancing exchange project between France and Great Britain required CRE's approval of a new version of "Rules on programming, the balancing mechanism and recovering balancing charges". This new version of the Rules, available on RTE's site, was submitted to CRE on 30 December 2008 and took effect on 3 March 2009. The new rules authorise RTE to receive and use balancing offers from any foreign grid operator for the purposes of future projects such as BALIT.

Gas infrastructure and networks

1. Regional initiatives and ERGEG's efforts contribute to building the internal market

1.1. Pending adoption of the Third Energy Package, ERGEG is preparing the future operating rules for gas infrastructure and networks

In the natural gas sector, the path to integrating national markets includes improving access conditions for shippers at interconnection points. This must be accomplished using current infrastructure in the short term and by developing cross-border transmission capacity over the long term.

To promote greater uniformity in operating rules applied to national gas systems, the Third Energy Package stipulates that ENTSOG will draft codes to be implemented by TSOs. The drafting effort will be managed by the future ACER, which must issue recommendations in the form of framework guidelines.

To meet these challenges, ERGEG has given priority to three topics: transparency, mechanisms for capacity allocation and congestion management at interconnection points, and the development of European-wide transmission infrastructure. CRE coordinates work in the last two areas to facilitate cross-border gas exchanges in order to stimulate competition and contribute to the development of gas hubs in Europe.

1.2. Regional gas initiatives integrate markets and reinforce security of supply

Regional initiatives aim to advance the integration of national markets within areas involving a small number of countries. Depending on the region, gas markets can display special characteristics that may justify a specific approach, at least temporarily. Based on common priorities, including interconnection development, transparency and interoperability between neighbouring systems, the goal is to find solutions to concrete problems through dialogue between regulators, governments, system operators and shippers.

CRE participates in two of the three regional European initiatives, the North-West and South regions, and co-chairs ERGEG's Regional Initiatives working group with OFGEM, the British regulator.

1.2.1. Progress in the North-West region: optimising use of existing capacity and investing to create new capacity

The North-West region (Germany, Benelux, France, Ireland, United Kingdom, Sweden and Denmark) constitutes the heart of the European gas market. Featuring the strongest demand in Europe, this area combines a large number of interconnected gas systems and includes the principal European hubs. Important issues are therefore at stake in developing cross-border flows in the region in terms of developing competition, promoting efficient hubs and improving interaction between countries to reinforce security of supply.

Despite infrastructure density, there are still numerous obstacles for shippers, such as problems of compatibility between different allocation rules, access to information on available capacity and congestion.

Improving transparency, managing interconnection points more efficiently and increasing cross-border transmission capacity are the priorities. CRE is coordinating two projects: one on interconnection operation and another on open seasons [1].

Significant progress has been made on transparency. System operators are committed to publishing flows and transmission capacity at interconnection points on their web sites. At the end of November, GTE+ (Gas Transmission Europe +) [2] launched the "Transparency Platform". This new online tool

ERGEG has given priority to three issues: transparency, mechanisms for capacity allocation and congestion management at interconnection points, and the development of European-wide transmission infrastructure.

(1) Two-step process used to obtain firm commitments for capacity reservations from shippers to secure investments financially.
(2) http://gas-roads.eu.

Despite infrastructure density, there are still numerous obstacles for shippers, such as problems of compatibility between different allocation rules, access to information on available capacity and congestion.

provides capacity information on all the interconnection points in Europe (technical capacity, reserved and available firm capacity, and reserved and available interruptible capacity) for the coming 18 months.

To improve use of transmission capacity, the North-West region plans for 2008-2012 to develop short- and long-term capacity products, in addition to setting up reservation procedures compatible on both sides of interconnection points.

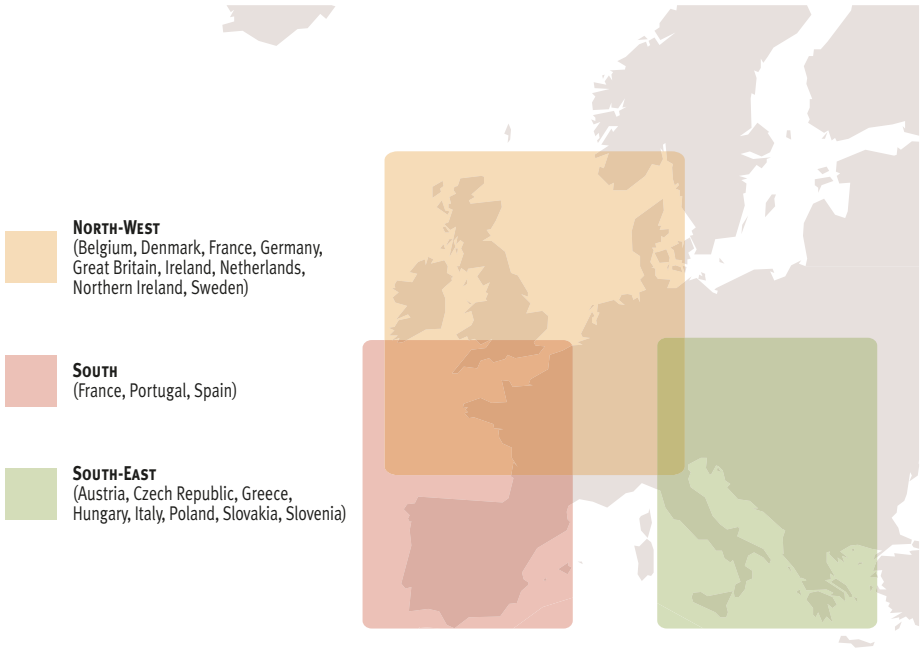
CRE is in charge of a project to follow up commitments made by German, Belgian and French system operators at Blaregnies/Taisnières (Franco-Belgian border) and Medelsheim/Obergailbach (French-German border). To respond to shipper difficulties, German operators (E.ON Gastransport, EGT and Gaz de France Deutschland Transport, GDFDT) and the Belgian operator (Fluxys) have agreed to improve transparency and have made significant operational progress.

Investment in new interconnection capacity relies on setting up market-based procedures, where coordination is crucial. Open seasons have an impact on neighbouring networks. A project led by CRE is using lessons learned from existing procedures to identify the difficulties encountered and complete the Guidelines for Good Practice on Open Season Procedures (GGPOS) published by ERGEG in March 2007.

1.2.1.1. Results of the GRTgaz and Fluxys open season at Taisnières H

In November 2008, GRTgaz and Fluxys resumed the binding phase for allocating cross-border capacity through a coordinated open season, launched in April 2007 and suspended for a year. This took place in parallel with the open season organised by Gas Transport Service (GTS), the Dutch shipper, for part of its network. GTS offered shippers the opportunity to adjust their offers on the basis of the GRTgaz-Fluxys open season results by postponing

FIGURE 3
REGIONAL GAS INITIATIVES



Source: CRE

the binding phase deadline. This initiative extended coordination to three countries.

As a result, 17 shippers booked entry capacity on the French side where all requests were fulfilled for a total of 592 GWh/day. On the Belgian side, 14 shippers booked transmission capacity to France for a total of 316 GWh/day. The difference is due to capacity that was already booked. Allocations were granted for periods for 10 years and over. The scheduled date for commissioning new capacity is 1 December 2013.

1.2.1.2. Results of the E.ON Gastransport open season at Obergailbach

In 2008, E.ON Gastransport (EGT), the main German TSO, launched an open season covering its entire network.

After the binding phase completed in August 2008, final allocation of capacity was delayed due to discussions on investment budgets with the Bundesnetzagentur, the German regulator. This open season was not coordinated with GRTgaz for the Franco-German interconnection point in Obergailbach. In addition, the request for additional capacity at this interconnection point was significantly less than the minimum amount required by GRTgaz for developing the Obergailbach entry point.

The examples above demonstrate two points. First, it is necessary to harmonise rules on both sides of the border. Second, there must be systematic coordination between TSOs to avoid problems resulting from a lack of communication between operators.

These experiences also show that it is important to set up adequate mechanisms during the first phase to oblige shippers to make "realistic" requests that correspond to their needs and so avoid any significant differences in the bookings during the binding phase.

1.2.2. In the South zone, development of gas interconnections between France and the Iberian peninsula makes progress

In the southern region (Spain, France and Portugal), the priority is to improve integration of the Iberian market with the rest of Europe. Development of interconnections between Spain and France is the major project for this region.

1.2.2.1. Results of joint capacity allocation at Larrau from April 2010 to April 2013

Since 2007, Spanish (Enagas) and French (TIGF and GRTgaz) TSOs have been working on a common infrastructure development plan for 2015. In addition to identifying investment required to upgrade existing interconnections (at Larrau and Biriatou), it proposes the creation of a new gas corridor to the eastern Pyrenees (the "Midcat" project).

Important issues are at stake in this development plan, involving diversification of supply in Spain and southern France. The success of the capacity allocation procedures that took place at the Larrau point in October and November 2008 demonstrates this point.

Under the supervision of CRE and CNE (the Spanish regulator), TIGF and Enagas have initiated a procedure for an Open Subscription Period (OSP) for all long-term capacity available from 1 April 2009 to April 2013, as well as short-term capacity from 1 April 2009 to 1 April 2010. Every year until 2011, the 20% of capacity reserved for the short term will be proposed to the market.

Rules on both sides of the border must be harmonised and actions taken must be coordinated systematically between TSOs to avoid problems due to a lack of communication between operators.

1.2.2.2. Development of future capacity: market consultation and open seasons for the 2013-2015 interconnection

Two phases for development of new capacity between France and Spain are planned for 2013 and 2015.

The first involves reinforcing the western branch through Larrau and Biriatou, while the second involves creating a new interconnection point in Catalonia ("Midcat"). On the French side, these projects will require substantial network upgrades up to the GRTgaz North zone. With regard to estimated financial cost, CRE considers that investment decisions should be made following the open season procedures planned for 2009. With firm long-term commitments from shippers, the economic viability of the projects will be confirmed and infrastructure can be sized appropriately.

With this goal in mind, CRE and CNE initiated a preliminary public consultation concerning the organisation of these two open seasons and the capacity products to be offered to shippers.

The conclusions from this public consultation and continued studies are planned for the first half of 2009.

2. Regulators continue their efforts to improve gas infrastructure operation and reinforce security of supply

2.1. Access to gas infrastructure is essential for markets to operate smoothly

There are four types of gas infrastructure, described below.

Transmission networks

France is served by two transmission system operators:
- GRTgaz, a GDF Suez subsidiary, which operates a network with around 32,000 km of pipelines, divided into four balancing zones (to be merged into two zones as of 1 January 2009);
- TIGF, a subsidiary of Total, which operates a network of around 6000 km of pipelines in southwest France, covering a single balancing zone.

Distribution networks

There are 24 distribution system operators (DSOs) in France. In 2008, Gaz Réseau Distribution France (GrDF), a subsidiary of GDF Suez, was responsible for 96% (around 333 TWh per year) of the total amount of gas distributed. The other networks are granted as concessions or state-run by 23 local distribution companies (LDCs), which distribute about 14 TWh per year, with 10 TWh distributed by the two largest LDCs, Régaz (Bordeaux) and RéseauGDS (Strasbourg). Since September 2008, a new natural gas DSO, Antargaz, has been serving the Schweighouse municipality in northeast France. Prior to that, Antargaz operated only propane networks. This is the first network where the DSO is not affiliated with an incumbent supplier.

In 2008, 76 new municipalities were connected to the gas network (compared with 116 in 2007). This brought the number of municipalities supplied with natural gas at the end of 2008 to 9,534, representing 26.1% of the municipalities in France and 76% of the population. Since the municipalities not yet served are small, it is becoming increasingly difficult to connect them while maintaining sufficient profitability.

LNG terminals

Two LNG terminals were operating in 2008, one at Fos Tonkin the other at Montoir-de-Bretagne. Both belong to GDF Suez and are managed by the company's major infrastructure department, DGI.

Fos Tonkin, commissioned in 1972, can unload ships of up to 74,000 m^3 and offers regasification capacity of 7 bcm per year. With startup of the Fos Cavaou terminal, this capacity will be reduced to 5.5 bcm/year following the decommissioning of a regasification unit.

In service since 1980, the Montoir terminal offers regasification capacity of 10 bcm/year and can unload ships of up to 200,000 m^3 TABLE 2.

TABLE 2
NUMBER OF USERS PER TYPE OF INFRASTRUCTURE

	Transmission		Storage		Terminals		Distribution	
	GRTgaz	TIGF	Storengy	TIGF	Elengy Fos	Elengy Montoir	GrDF	ELD
01/01/2009	48	19	22	8	3	5	12	28 (1)
01/04/2008	44	13	22	8	3	5	13	26 (1)

Source: CRE

(1) Including the 22 local incumbent suppliers.

Underground storage facilities

France has two underground storage operators:

- GDF Suez (DGI) operates 12 storage sites divided into six groups. These sites are located in the balancing zones of GRTgaz and represent a capacity of 109 TWh, equivalent to 79% of the storage capacity in France;
- TIGF operates two storage sites in southwest France. These sites have a storage capacity of 28 TWh, or 21% of national storage capacity.

2.1.1. Assessment of gas infrastructure use as of 31 December 2008: positive changes in infrastructure access

In distribution networks at the end of 2008, shippers other than GDF Suez Branche Énergie France were active on 99% of the transport/distribution interface points, as compared to only 91% at the end of 2007. However, this geographic diversification of shippers took place mainly on the GrDF network rather than the LDC networks.

The number of shippers in the transmission network also continued to grow.

Use of marketable capacity at links and interconnections remained very high.

Due to new allocation mechanisms, the number of shippers with firm transmission capacity to access the South zone of GRTgaz increased from 11 in January 2008 to 21 in January 2009. This capacity has been completely booked.

Firm entry capacity into France has all been booked, except at the Taisnières H entry point, for the six-month period from January to June 2009.

At the Taisnières H entry point, the number of shippers increased from 16 in the first half of 2008 to 19 in the first half of 2009, primarily as a result of new products marketed upstream by Fluxys following work conducted as part of the North-West Regional Initiative.

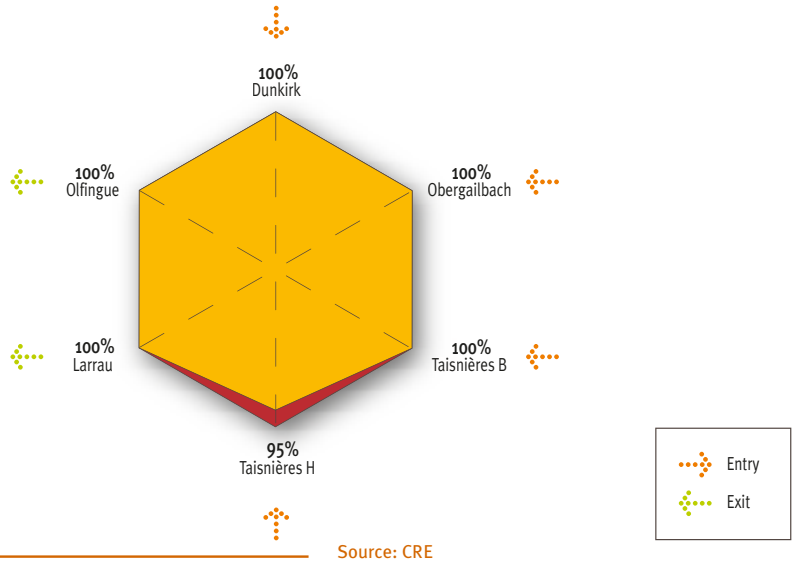
2.1.2. Reduced LNG consumption

Lower consumption due to the moderate weather in 2008 and high levels of gas inventory led to lower gas prices in Europe as compared with those of other hubs FIGURE 4.

Since LNG is to some extent a balancing element in the supply chain, shippers unloaded only two vessels at the two French terminals using the "band" service compared with three during all of 2007.

Lower consumption due to the moderate weather in 2008 and high levels of gas inventory led to lower gas prices in Europe as compared with those of other hubs.

FIGURE 4
RESERVATION OF ENTRY OR EXIT CAPACITY ON GAS TRANSMISSION NETWORKS (JANUARY TO JUNE 2009)



Source: CRE

Total quantity unloaded in 2008 was slightly less than in 2007. Fos Tonkin received only 60 TWh (or -1%) and Montoir received only 80.5 TWh (or -4%). The number of subscribers is stable (seven companies).

2.1.3. Stability of storage facility use compared to 2007

As of 1 November 2008, the total number of customers at GDF Suez storage facilities remained constant at 22 (including GRTgaz). The number of TIGF subscribers remained at eight.

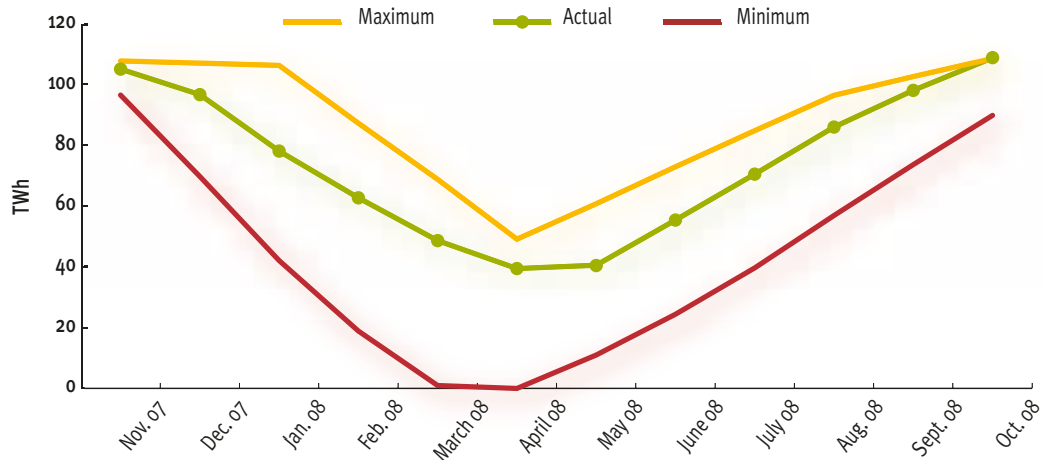
As in 2007, suppliers replenished their storage capacity by the beginning of October 2008 **FIGURES 5 6**.

2.2. Balancing on the GRTgaz network

In order for the market to operate correctly there must be a physical balance on the transmission network.

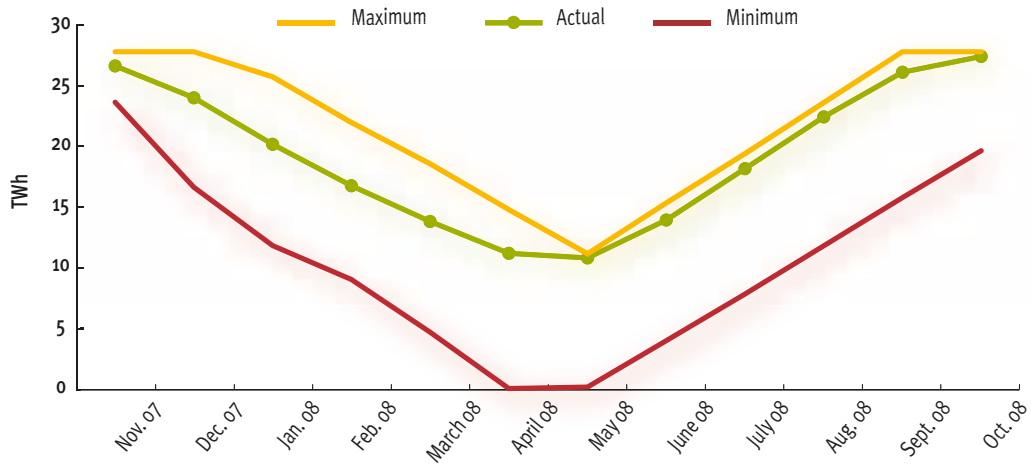
For this purpose, each shipper is obliged to balance its gas injections on the networks (imports, production, gas exchange point purchases and withdrawals

FIGURE 5
GDF SUEZ DGI STORAGE FACILITIES



Source: CRE

FIGURE 6
TIGF STORAGE FACILITIES



Source: CRE

from storage facilities) with its withdrawals (customer consumption, exports, gas exchange point sales and injections into storage facilities).

Until 2006, the two TSOs relied exclusively on underground storage facilities. They billed shipper imbalances based on the Zeebrugge hub price for gas transported through the balancing zone in question.

A new balancing system was set up by GRTgaz during 2007 to gradually change to a market system. GRTgaz uses the market to cover part of its balancing needs (around 20%) through Balancing GRTgaz, an exchange platform operated by Powernext. The average transaction price on the Powernext platform has been used to invoice shippers for part of their imbalances.

This system was used throughout 2008. In November 2008, 16 companies were registered on the Balancing GRTgaz exchange platform, compared with 11 at the end of 2007.

In practice, the balancing price remains close to the Zeebrugge day-ahead price. Consequently, the new balancing system has the advantage of giving shippers information on the cost of their imbalances based on economic data rather than a standardised reference.

In the second half of 2008, measures were taken to prepare for coming changes to the GRTgaz balancing system in 2009 (see Figure 7) **FIGURE 7**.

2.2.1. Coordination with Powernext

In its deliberations of 23 October 2008, CRE approved GRTgaz's proposal to increase the size of traded lots (from 150 to 250 MW per day) on the Balancing GRTgaz platform to make them equivalent to lots on the gas trading platform launched by Powernext on 26 November. This measure was taken to facilitate any future merger of the two platforms.

2.2.2. Redistributing balancing tolerance to favour the South zone

In its deliberations of 26 November 2008, CRE approved GRTgaz's proposals to adapt the balancing system to the new transmission structure effective as of 1 January 2009.

The following measures were adopted:
- new distribution of balancing tolerance favouring the GRTgaz South zone and small portfolios;
- a temporary (12-month) arrangement to accompany removal of the mechanism for sharing imbalances between balancing zones.

CRE also asked GRTgaz to continue its work in 2009 within the consultation working group for transportation on gas-transmission networks, with particular focus on the following important topics:
- changes in the overall transmission network structure in France;
- impact of combined-cycle gas turbine operation on network balancing;
- gradual move towards market balancing and definition of the target balancing system.

2.3. Consultation process on gas transmission networks launched

The rules for transmission network transport may change on numerous points, including overall gas transmission network structure, rules applicable to gas-fired power plants and changes in the balancing system.

This is why CRE asked GRTgaz and TIGF to organise a consultation process involving all market players (CRE deliberation of 18 September 2008).

The goal is to examine these issues transparently and consistently between the two TSOs and put forward proposals for CRE approval. CRE is taking part in the consultation to ensure that the process runs smoothly.

The plenary committee met for the first time on 7 November 2008, where all represented interests from the industry expressed their positions. Newcomers, incumbent suppliers, industry customers, traders, electricity generators and integrated energy groups have all contributed to a fair and constructive consultation process. The French Directorate General on Energy and Climate Issues (DGEC) is a permanent guest member of the committee.

The new balancing system has the advantage of giving shippers information on the cost of their imbalances based on economic data rather than a standardised reference.

To date, the plenary committee has formulated five main topics: changes in network structure and problems in accessing certain zones, adapting the balancing system, mechanism for allocating transmission capacity and the secondary market, rules applicable to gas-fired plants, and connection issues.

At the request of customers and new suppliers, the first issue considered in November 2008 was improving supplier access conditions in southern France. The working group will submit its first conclusions to CRE in April 2009.

2.4. LNG terminal regulations: preparing future decisions

2.4.1. Montoir open season

At the beginning of 2008, Gaz de France validated the temporal extension, called "extension 0", of the Montoir terminal (maintaining the terminal at 10 bcm/year beyond 2021) and allocated the requested capacities. This allocation will bring terminal bookings to 97% of its technical capacity (123 TWh per year, or 10 bcm/year) between 2011 and 2019. This decision was notified by the operator on 29 December 2008.

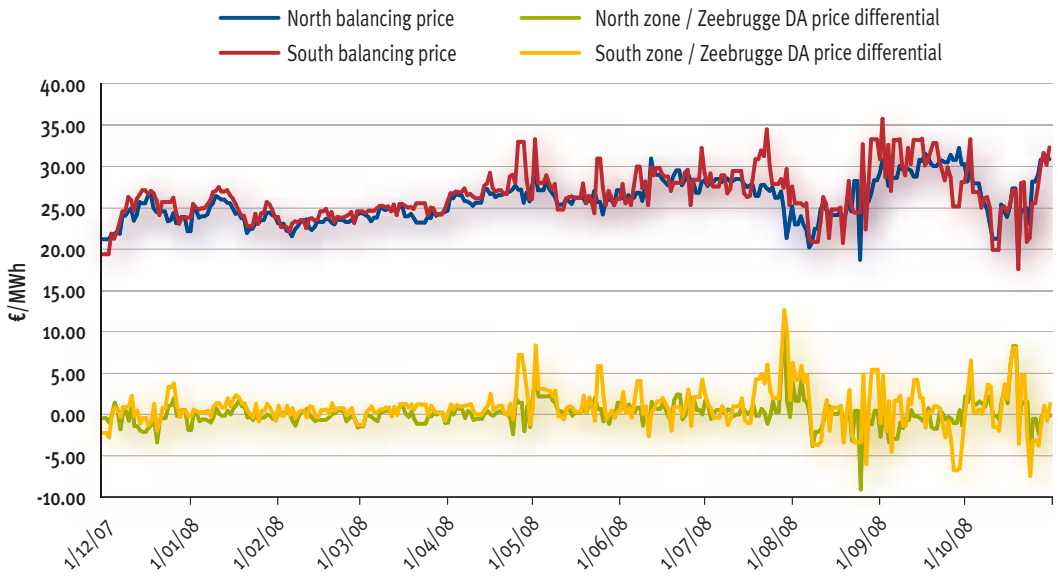
As a result, new suppliers will not be able to access the Montoir terminal after 2011, except for a few spot cargoes during the year.

2.4.2. Fos Cavaou terminal

A terminal with a technical capacity of 8.25 bcm per year, managed by the Société du terminal méthanier de Fos Cavaou (STMFC), a joint subsidiary of GDF Suez (69.7%) and Total (30.3%), is currently under construction. Commissioning, initially planned for 1 April 2008, has been pushed back because of construction delays.

CRE will propose a tariff for use of this terminal in the second quarter of 2009 that will take into account as precisely as possible pertinent factors

FIGURE 7
BALANCING PRICE TREND IN 2008



Source: CRE

(subscription level, amount of investment and operating costs).

CRE regrets the delay in completion and considers that it will have a detrimental impact on competition in the South zone.

2.4.3. Long-term tariff visibility

On 22 July 2008 CRE published a public consultation covering three topics:
- pricing principles for terminal use over the short term (2009-2011);
- the principles of tariff visibility which could be applied over the long term in relation to investment in new capacity for regulated terminals;
- the conditions on which CRE will base its decisions when exemptions are requested.

Twenty-two responses were received and analysed by CRE and a round table was organised on 16 October 2008. The outcome of this consultation was that the majority of market players favour long-term visibility of tariffs, including those at existing terminals.

For regulated LNG terminal extensions leading to a significant and lasting increase in capacity and for new terminals agreed upon after the next tariff takes effect, CRE plans to set the basic rate of return for a period of 20 years. This rate could be equal to the basic rate applicable to transmission assets at the time of the final investment decision for the new infrastructure, in addition to the premium of 200 basis points specific to LNG facilities.

In the case of investment leading to a significant and lasting increase in regasification capacity, CRE may agree to increase the rate over a period of 10 years, depending on the level of risk assumed by operators in terms of the amount invested and the conditions set up to allocate the new capacity.

For extensions and new terminals affected by multi-year pricing, tariffs would be reviewed every four years to take into account deviations observed in certain costs and in capacity subscriptions considered when establishing the tariff.

2.4.4. Investment projects and requests for exemption from Third Party Access (Article 22)

Four new LNG terminal projects in France have been announced. They are located at Antifer (Gaz de Normandie, whose partners are CIM, E.ON Ruhrgas, Poweo and Verbund), Dunkirk (EDF), Fos (Shell) and Verdon (4Gas). The public debate procedure has already been completed for the Antifer, Dunkirk and Verdon projects and, between June and July 2008, the three investors announced their intention to pursue the projects and apply for the operating licence.

Article 22 of European Parliament Directive 2003/55/CE relative to common rules for the internal natural gas market stipulates that an exemption for third party access and/or pricing regulation may be granted according to predefined conditions for new large-scale gas infrastructure (interconnections between Member States, LNG facilities or storage facilities).

In accordance with these measures, developers of new LNG terminal projects may request an exemption.

Given the context surrounding the new terminal projects, on 21 November 2008 CRE published its position on exemption issues relative to the application of Article 22.

It considers that exemptions granted on a case-by-case basis may favour investment in LNG terminals. However, it considers that applying both regulated and exempted conditions at the same terminal may lead to operational problems and the risk of cross-subsidies.

Regarding capacity allocation, CRE sees that most market players are opposed to requiring an open season procedure for exempted terminals. For each project, it will give careful attention to capacity allocation conditions and the results of allocation, by analysing their impact on market operation. Consequently, it reserves the right to request that an open season procedure be imposed on a case-by-case basis. CRE considers that the same company, including affiliated companies, must not hold more than 66% of the technical capacity of a terminal.

For extensions and new terminals affected by multiyear pricing, tariffs would be reviewed every four years to take into account deviations observed in certain costs and in capacity bookings considered when establishing the tariff.

Applying both regulated and exempted conditions at the same terminal may lead to operational problems and the risk of cross-subsidies.

If such is the case, during the exemption file review, the project developer must demonstrate that it has made its best efforts to encourage the participation of other stakeholders.

Moreover, CRE has taken note that market players are not favourable to a requirement imposing that a portion of capacity on exempt terminals be dedicated to short-term contracts. It considers that while this mechanism contributes to smooth market operation, it should not be imposed on LNG terminal projects, given the specific characteristics of the LNG market.

Each project developer must nevertheless demonstrate that the investment project could not be achieved without an exemption in terms of the level of risk and expected profits involved. Moreover, CRE will only be favourable to an exemption request if the financial conditions for releasing unused capacity to the market are clearly defined and published by the project developer.

In the opinion delivered, CRE will analyse the French gas market, but will enlarge its study to include neighbouring gas markets and the French electricity market.

CRE will conduct a public consultation for each terminal and exemption will be granted on a case-by-case basis.

2.5. Access to underground natural gas storage facilities: redistribution of storage capacities on 1 November 2008

Directive 2003/55/CE of 26 June 2003 allows Member States to choose either regulated access (tariffs and access conditions set by an independent regulator) to storage facilities or line pack and negotiated access (tariffs and access conditions set by operators).

This measure is transposed in French law by the Law of 9 August 2004 which stipulates that the conditions for access to storage facilities, in particular the price, are to be negotiated under transparent and non-discriminatory conditions.

The law also stipulates that when an operator runs more than one underground storage facility, it is obliged to submit any storage access contracts as well as the conditions for allocation capacity to the French Minister for Energy.

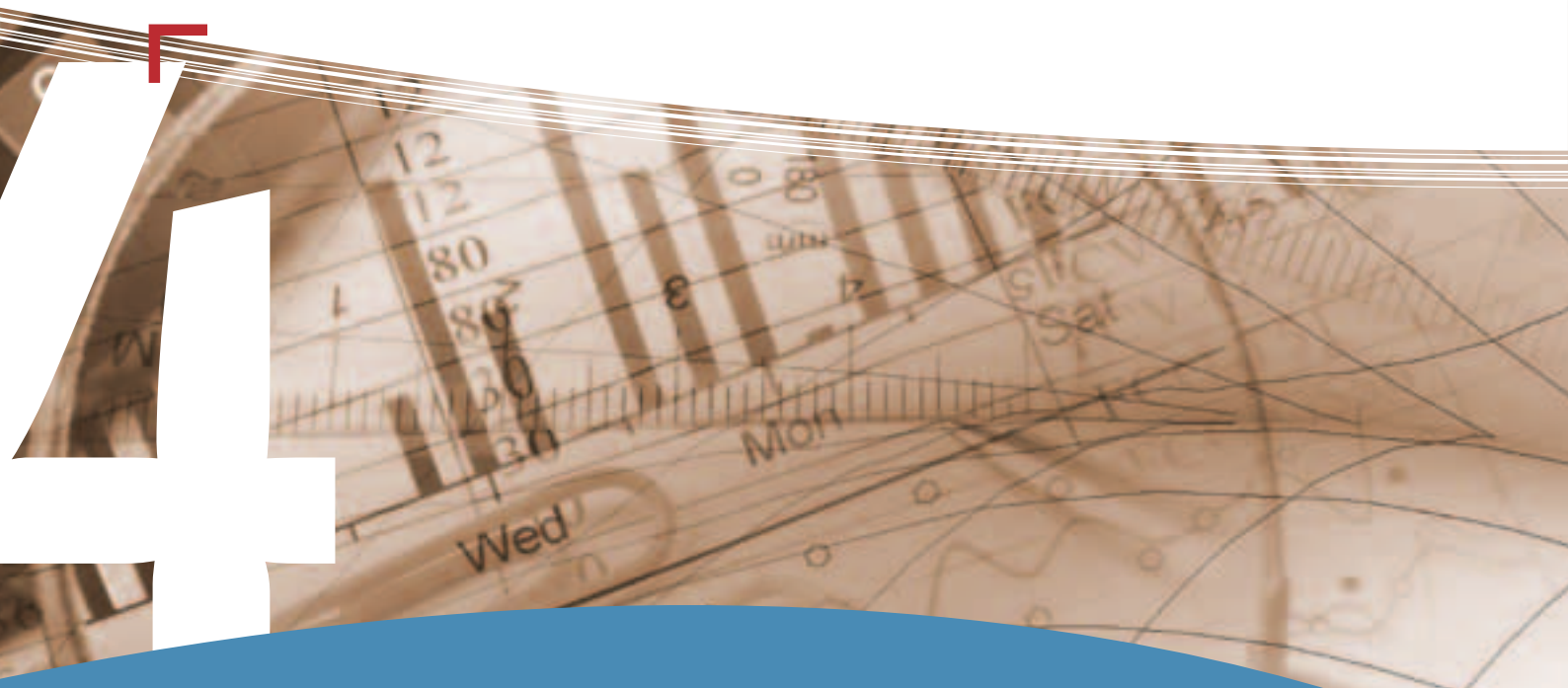
The conditions for access to underground natural gas storage facilities are defined by Decree No. 2006-1034 of 21 August 2006, requiring that on 1 November of each year, all natural gas suppliers active on the French market must have inventory equivalent to 85% of the demand expressed by their domestic customers and their other customers responsible for ensuring public service. For this purpose, regulations stipulate that storage capacity rights are allocated to each final customer according to its consumption profile. If the customer switches supplier, these rights are automatically transferred from the old to the new supplier.

In France, up to 31 December 2008, underground storage facilities were run by two operators: by the Direction des Grandes Infrastructures of GDF Suez (DGI) and by TIGF. DGI owns the second largest capacity in Europe with 12 storage sites divided into six groups on the GRTgaz network, representing a capacity of 9.4 bcm of natural gas (108.7 TWh). TIGF has two storage facilities in southwest France representing a capacity of 2.3 bcm of natural gas (27 TWh).

The total storage capacity in France (136 TWh) represents approximately 25% of national annual consumption.

The various newcomers to storage supply for 2008-2009 represented 11.1% of total storage capacity on 1 November 2008. This market share rose by 1.2% compared with the month of April.

The remaining storage capacity is held by GDF Suez (72.6%) and Total (16.3%).



4

The **regulatory framework** for setting **tariffs** aims to **promote investment**

The year 2008 was marked by the preparation of new tariffs for access to electricity and gas transmission and distribution systems and by the move to a multiannual incentive-based tariff scheme. As a result, new methods were proposed to ensure return on investment in networks and grids.

1. Tariffs set in 2008 for the use of networks and grids introduce a new regulatory framework

1.1. Adequate return on investment for network and grid activities is a necessary but not sufficient condition to attract investment

New methods were proposed to ensure return on investment in networks and grids. These methods, particularly the rate of return set by the regulator, based on the regulated assets base (RAB), are followed closely by finance actors (rating agencies and investors). The conditions governing return on investment are decisive in establishing the financial viability of system operators. From the regulator's viewpoint, they constitute an important parameter that conventionally is examined closely in terms of risk assessment for the regulated business. They must therefore be viewed in the broader context of the adopted regulatory framework. The tariff policy applied to investments and, in general, covering risks in a regulatory framework in comparison to the risk normally incurred by businesses in an open-market context, represents decisive factors, in addition to the strict rate of return on the RAB.

These various factors are crucial to ensuring that system operators have adequate financial resources to carry out the expected level of necessary investment. They do not suffice, however, to ensure that targeted investment is actually achieved. Shareholder arbitrage, while legitimate from the strict viewpoint of corporate law, may enter into conflict with investment in regulated businesses. The regulator's preoccupation with this issue is justified regardless of network ownership, although it may be of even greater concern for vertically integrated corporations.

Safeguards allowing the regulator to monitor investment achievement may be useful. CRE has the authority to approve investment plans for transmission network operators. This is not the case, however, for distribution system operators. Nonetheless, for gas distribution networks, most investment is controlled by regulatory measures (security, peak at 2%, etc.), although there are currently no provisions that provide any type of control over the operators' liability structure. Changes in debt levels and the dividend payout policy to the parent company, decided by shareholders, are also factors that could potentially compete with the investment needs of regulated systems.

1.2. The selected rate of return on the RAB is based on an estimated range of parameters used to calculate the WACC

Like most regulators, CRE proposes tariffs that cover depreciation and return on investment. Investment capital is taken into account through the regulated assets base. The RAB increases as new capital is invested, when assets are placed in service, and decreases by the amounts deducted for depreciation and assets disposal. It is calculated on the basis of fixed assets as they appear in accounting statements. In the case of electricity, fixed assets are considered in nominal (current) values and the rate of return is also nominal. For gas operators, the value of assets is adjusted for inflation (based on the consumer price index). This choice is explained by the valuation method adopted by the Houri Commission in 2002 to valuate gas transmission assets when they were sold by the State to Gaz de France and Gaz du Sud-Ouest (GSO). This valuation was based on inflated historical costs. Consequently, inasmuch as the value of assets follows inflation, the rate of return retained is expressed in real terms.

The rate of return taken into account is based on the usual weighted average cost of capital (WACC) method, within a normative financial structure. Equity capital cost is estimated using the capital asset pricing model (CAPM). The various parameters used in the assessments are expressed as an estimated range.

Shareholder arbitrage, while legitimate from the strict viewpoint of corporate law, may enter into conflict with investment in regulated businesses.

INSET 8
AN INDEPENDENT STUDY ON THE WACC FOR ELECTRICITY AND GAS INFRASTRUCTURES

- An independent consultant conducted a comparative analysis of practices among European regulators in a regulatory framework comparable to the French context and calculated WACC (internal calculation) based on an estimated range of values for each WACC parameter. The study also examined and compared certain methods used to calculate regulated assets bases, such as the revaluation method, depreciation periods, and the set of assets included in the regulated assets base.
- Eight countries were chosen for the comparative analysis: Austria, Belgium, Ireland, Italy, Finland, France, the Netherlands and the United Kingdom. Information was exchanged regularly with the regulators involved throughout the comparative analysis of practices. One of the major aspects of the study consisted of harmonising the rate of return for the various regulators to establish a basis for comparison. Regulators may adopt different conventions to calculate the return rate (nominal vs. real, before or after tax, etc.) that would invalidate a direct comparison. This preliminary processing of data made it feasible to compare return rates by applying the same tax rate (i.e., the rate applicable in France – "iso-tax") on a homogeneous set of companies, to avoid any distortion related to the fiscal system specific to each country.
- As regards the internal calculation, it is based on estimates for the range for each of the parameters used in the WACC (risk-free rate, market risk premium, cost of debt, asset beta and equity, leverage). Estimation of the parameters related to operator risk assessment (leverage, beta, debt spread) took into account the results of the comparative analysis.
- These results reflect a certain dispersion in how the different regulators estimate WACC. For electricity, on a nominal basis, before tax and ISO tax, the regulators' rates show a median value of 7.3% for transmission (ranging widely from 6.5 to 10.2%) and 7.5% for distribution (ranging from 7 to 10.2%). For gas, on a real basis, before tax and under equivalent tax conditions, the regulators' rates display median values of 6.3 and 6.1%, respectively, for transmission and distribution, with benchmarks ranging from 4.7 to 8.2% for transmission and from 5 to 7.25% for distribution.
- Finally, the internal calculation in the study proposed an estimated WACC range for electricity transmission and distribution from 6.7 to 8.4% (nominal, before tax, for an average of 7.5%). For gas, the proposed levels (real value, before tax) were 4.9 to 6.6% for transmission (average 5.7%) and, for distribution, 5.3 to 7% (average 6.2%).

CRE also asked an independent consultant to study the WACC for electricity and gas infrastructures INSET 8.

For electricity, the rate of return envisaged in the public consultation of 26 August 2008 relevant to TURPE 3 ranged from 7.25 to 7.75% (nominal value, before tax).

In the case of gas, the need to cover the risk of fluctuation in the volumes transported by GrDF, and therefore the climatic contingency to which it is exposed due to its tariff structure, explains why the rate of return on gas distribution assets was set to 6.75% (real value, before tax), i.e. 50 basis points below the return levels for ATRD 2. This risk was previously left to the expense of the operator. The rate retained for transmission, however, was maintained at 7.25%.

The difference in return on investment between gas transmission and distribution is materialised in the choice of beta and the subsequent cost of equity.

It reflects the greater risk incurred by TSOs due to uncertainty in the development of capacity subscriptions. Since the purpose of transmission system operators is to provide better market operation, natural gas transmission networks are not only designed to serve final customers. A significant portion of TSO investment is allocated to improving access to their infrastructure (fluidification, simplification, etc.). It is important to note that for these TSOs, the return on investment mechanisms set up also include an incentive, set to 300 basis points over a period of 10 years, for all investments on the main gas network leading to the creation of additional capacity or to a reduction in the number of balancing zones.

Another note of interest is that the CRE tariff policy maintains a difference between the return on assets for electricity (where the retained WACC values are nominal) and for gas (where the chosen WACC values are expressed in real terms). The rates of return selected for gas business are greater than those set for electricity. This difference is materialised structurally in the long-term risk assessment of gas activities, given that there are substitutes for gas energy, unlike electricity.

Fixed assets under construction represent a special case. In its tariff policy, CRE applied the same method to fixed assets under construction, regardless of the type of infrastructure. According to this method, the financial expenses associated with fixed assets under construction are only covered if the regulated activities in question are responsible for financing investments with a long-term expenditure phase before assets are placed in service. This is the case for transmission activities, but not for distribution networks. Consequently, no return on investment with regards to this aspect has been provided for distribution system operators.

For transmission system operators, return on investment for these assets is determined on the basis of the method generally used for calculating interim interest during construction, taking into account an interest rate comparable with the cost of debt. This method complies with normal accounting practice of interim interest payments for project financing. A study on this approach was submitted to an independent consultant who examined the issue from both the accounting and economic point of view. The study supported CRE's approach and also pointed out the need to avoid counting interim interest payments twice, when they have already been capitalised in the regulated assets base.

1.3. A pass-through treatment for investments

Tariff proposals are based on forecast expenditure assumptions for the period up to 2012. Differences may therefore appear between forecast and actual figures. For several cost items, including capital costs, these expenditures are eligible for the expense and revenue clawback account, a system for correcting errors. *Ex post,* this implies that future tariffs will cover expenditures actually made, and not the assumptions in the initial pricing programme (pass-through principle).

From the investor's viewpoint, operators are therefore sure to recover the depreciation and return on investment corresponding to actual investment. They do not incur any financials risks, even if actual investment exceeds the estimated amounts. In this scenario, system operators do not have anything to gain by cutting back on investment.

In the end, an investment pass-through pricing programme eliminates any incentive to withhold investment in the network or grid, while guaranteeing the operator's tariff revenue should investment overrun budget predictions. This system provides the security necessary to encourage investment in infrastructure, while ensuring that system users do not pay any more than what actually corresponds to investment laid out by operators.

Moreover, the situation would not be fundamentally different if incentives were introduced that involved only unit investment costs. Investment volume would still function on a pass-through basis INSET 9.

1.4. The regulatory framework provides safeguards against the risk of volume fluctuations

In addition to capital costs, the pricing programme for 2008 includes several other items belonging to the expense and revenue clawback account, the most significant, in terms of percentage of operator turnover, being variations in volume or withdrawal. In practice, operators are therefore sure to recover the authorised revenue path in the event of a sudden volume fluctuation, regardless of any volume fluctuations that may occur due to climatic or economic contingencies. Another item in the expense and revenue clawback account likely to attenuate the operators' risk profile is purchasing of energy losses for both electricity and gas.

The regulatory system therefore provides a secure context for operators, especially in terms of forecasting operating revenues. Inflation-indexed mechanisms also enhance security against the risk of offset between predicted and actual inflation over the period. The tariffs proposed in 2008 actually guarantee a large portion of operators' future revenues up to 2012. All in all, this regulatory framework provides operators with a return on capital employed and a limited risk profile that are particularly favourable to predicting financial flows. Relieving uncertainty in forecasting is especially appreciated in these times of economic and financial difficulty.

1.5. Cash-flow generations are satisfactory, subject to shareholder decisions

Regulated operators generate most of their turnover through tariff revenue, their major resource.

It would be useful to implement certain safeguards so that the regulator can restrict shareholder decisions when they may impact operators' financial strength or the ability to carry through investment plans.

INSET 9
TOWARDS INCENTIVES BASED REGULATIONS FOR INVESTMENTS

Introducing investment incentives in the regulatory system may be envisaged in upcoming CRE tariff proposals. Theoretically, these measures set out to discourage operators from investing beyond actual system needs, or to encourage them to optimise their investment costs. In practice, incentives may take the form of pricing measures that apply a pass-through approach to a reference forecast path of investment volume, and introduce rules that generate incentives to share earnings from the underlying postulated unit costs. Experience feedback on tariffs proposed since 2008, as well as analyses engaged on investment unit costs will provide fruit for thought on this topic.

This revenue is structured to cover any predicted changes in operating costs, as well as depreciation and return on RAB. In this way, with the exception of any changes occurring between accounting periods for overpayments or losses through the clawback account, earnings before interest, taxes, depreciation and amortisation (EBITDA) can be estimated as the sum of depreciation and return on RAB.

For the period 2009 to 2012, the regulatory EBITDA can be compared to forecast investment to assess operator cash flow. For the four operators subject to the multiannual tariff programme, EBITDA exceeds predicted investments.

This method is used to assess whether operators have sufficient funds to finance their investments under good conditions, especially in the current economic and financial context.

The regulator's proposed tariff programme is not the only instrument used to guarantee the financial health of operators, which can also be influenced by shareholder decisions, particularly in terms of liability structure and its changes.

During legal unbundling of transmission activities, followed by distribution activities, when the opening balances were established for RTE, GRTgaz and GrDF, the parent companies, EDF and Gaz de France (now GDF Suez), transferred part of their debt to these affiliates. In the case of ERDF, the level of shareholders' equity allocated to the subsidiary was 2.7 billion euros, below the level observed in the most recent unbundled accounts available.

The regulatory system provides a secure context for operators, especially in terms of forecasting operating revenues.

Net income appropriation and transfer of dividends to the parent company can restrict the operator's financial resources. Based on 2007 income, the ratio of dividends paid to the parent company was 60% for RTE, 75% for ERDF and 95% (i.e. 100% of distributable income) for GRTgaz. For RTE, after correcting overpayments received in 2007 related to interconnections, the distribution rate calculated on the basis of recurrent income exceeded the entire income amount for the period covered by TURPE 2. These distribution rates are to be compared with the indications given by EDF and GDF Suez to financial markets concerning the targeted dividend distribution rate, equal to 50% of consolidated income (not including exceptional items).

It is worth mentioning that income that could potentially be distributed by system operators can in theory significantly exceed yearly income (share premiums, retained earnings, etc.).

These financial flows can jeopardise the financial health of regulated companies and affect their ability to finance investment. In the case of vertically integrated groups, on top of this concern, there is also the risk that shareholder decisions result from arbitrage between investments in open-market activities, considered more profitable, in theory, even if they involve greater risk, and regulated activities. Another risk is that funds transfers decided by the parent company (to reimburse debt, pay out dividends) may become a permanent upward cash transfer that could be viewed as cross-subsidising between regulated and open-market activities.

From this viewpoint, it would be useful to implement certain safeguards so that the regulator can restrict shareholder decisions when they may impact operators' financial strength or the ability to carry through investment plans. For example, the authority to approve transmission operator investment plans could be extended to electricity distribution grids. In terms of financial liability, the power to control financial flows to the parent company could be granted on a conditional basis, for example, when certain criteria (ratings, financial ratios, etc.) have been reached.

Finally, it should be noted that measures relative to the ITO model of transmission system operator independence in the Third Energy Package stipulate that at the request of the TSO, the vertically integrated corporation must provide appropriate financial resources in due time for future investment plans and/or to replace existing assets.

2. Investment and tariffs for electricity grid use

2.1. The regulator ensures that necessary investment in transmission grids is planned and carried out

The RTE investment plan for 2009 shows a considerable rise in capital outlays.

Total needs inventoried in the long-term investment plan of the public electricity transmission grid for the period 2008 to 2020 reach almost €11 billion.

In accordance with Article 14 of the Law of 10 February 2000, the RTE investment plan is subject to approval by CRE, which ensures that the necessary investments are made to develop grids and provide transparent, non-discriminatory access to them.

The investment plan presented by RTE and approved by CRE for 2009 amounts to €1,029.9 million, up by 21% from the 2008 investment plan approved in December 2007. The major projects involve reinforcing the Tamareau-Tavel 400 kV line, and measures taken by RTE to consolidate power supply security in the Var and Alpes-Maritime regions following the government's decision to cancel the declaration of public interest that had been granted for the Boutre-Broc-Carros 400 kV line in 2006. RTE is also pursuing its efforts to accelerate investment in network asset renewal TABLE 3.

2.2. New tariffs for using public electricity grids were proposed in 2009

New tariffs for use of public transmission and distribution grids (TURPE 3) are necessary to allow system operators to finance growing needs for investment, including:

- the need to mitigate increasing average outage time on distribution grids;
- rising demand for grid connection and reinforcement in response to new growth in power generation;

TABLE 3
2009 RTE INVESTMENT PLAN, APPROVED BY CRE

Investment	2009
Main Transmission Grid and Interconnections - Development	€215.9 m
Main Transmission Grid and Interconnections - Renewal	€66.6 m
Regional Grids – Development	€324.9 m
Regional Grids – Renewal	€261.5 m
Work on Transmission Grids	€3.5 m
Power system tools	€76.3 m
Market management tools	€42.8 m
Logistics	€38.3 m
Total	**€1,029.9 m**

Source: RTE (in rounded numbers)

The new tariff plan has been designed to cover a period of four years to provide transmission and distribution system operators with a clearer view of expected revenue.

- reinforcement of interconnections justified by European integration;
- modernisation of metering systems to adapt to decentralised power generation and energy demand control.

The government did not accept CRE's initial proposal and asked that it be modified to take into account two objectives:

- introduce a greater tariff modulation according to the time of day and/or the season when power is consumed, aiming to reflect costs while at the same time providing greater incentive for customers to limit consumption during peak periods;
- complete high-voltage network infrastructure security by 2017.

In preparing its tariff proposal, CRE conducted several public consultations, leading to the guidelines described below.

2.2.1. A tariff that provides system operators with the means required to fulfil their public service obligation

The main public service obligation for system operators is the development and renewal of electricity grids in order to improve quality and accompany growth in power generation, consumption and interconnection.

For the period from 2009 to 2012, TURPE 3 is expected to finance €11.9 billion for investment in distribution grids, for an average annual rise of 45% compared to 2008. This figure represents the scenario the most conducive to improved quality offered by ERDF.

Investment in the transmission grid should represent €4.7 billion, for an average annual rise of 36% compared to 2008. This mainly covers development of the ultra-high voltage grid and interconnections.

2.2.2. A multiannual incentive-based tariff promoting transparency for operators and suppliers

The new tariff plan has been designed to cover a period of four years to provide transmission and distribution system operators with greater transparency regarding their expected revenue. By extending the tariff period, it will also be easier for system operators to adapt installations to achieve greater cost control and improved quality.

2.2.3. New operating rules for the expense and revenue clawback account

CRE proposed to continue the clawback account mechanism set up for TURPE 2, which serves to measure and compensate any deviations between actual values and the forecasts on which the tariff proposal was based, for previously identified items.

Certain changes in how the clawback account functions have nonetheless been suggested.

Uncertainty regarding withdrawal and injection levels as well as the number of connections, impacted by the increasing number of measures to control energy demand and develop decentralised generation, have led CRE to include (in the clawback account) differences in revenue resulting from any deviations between forecast power consumption and the actual volume of consumption, for any tariff component. In the case of ERDF, the grid access fees paid by ERDF to RTE and revenue from connection operations are also included in the items eligible to appear in the expense and revenue clawback account.

Given the extension of the tariff period, and to keep the clawback account balance reasonable at the end of the tariff period, CRE proposed to clear the account annually, limiting the impact on tariffs to ±2%. In the TURPE 2 programme, the balance was only cleared at the end of the tariff period.

The bonuses and penalties associated with the various incentive-based regulation mechanisms are also accounted for in the expense and revenue clawback account. To smooth out the impact of incentives over time, however, the sum total of financial incentives will be calculated annually and worked into the clawback account balance at the end of the tariff period.

Lastly, the expense and revenue clawback account will collect interest at the risk-free rate.

2.2.4. Power supply quality and quality of service to customers: top priority for CRE

To ensure that investments financed by TURPE 3 lead to improved quality of supply, CRE proposes to set up financial incentives based on average outage time, applicable to both RTE and ERDF. In this context, if the average outage time is greater than an ex ante reference value, the system operator will be penalised. If it is less than the reference value, the system operator is rewarded. The amounts for rewards and penalties will be capped at €50 million/year for ERDF and €20 million/year for RTE.

Financial incentives will also be applied to several other aspects of service quality. For example, if ERDF does not show up for a scheduled appointment, the customer can request a financial compensation for a net lump sum amount of €23 (for 2009). Several indicators to measure quality of service will also be monitored, especially those reflecting the time necessary to connect customers or terminate their contracts.

2.2.5. New working groups created following TURPE 3 consultation process

Following up on preliminary work conducted on the tariff structure, and at the request of the French economics and energy ministers, who have asked for a more finely-tuned time-differentiation pricing system in transmission and distribution tariffs, CRE decided to set up a working group to study this subject in greater depth, aiming for a tariff structure that takes into account grid costs and the growing issue of energy demand control.

A significant part of system operator expenses is due to the costs of compensation for losses. Confronted with this situation, several stakeholders have been considering changing the line loss purchasing mechanism. That is why CRE decided to create a working group to study the terms of compensation for losses. The purpose of this group is to propose several possible alternatives. Conclusions will be presented at the end of 2009.

2.3. Incentive-based regulation is designed to encourage system operators to improve their efficiency

2.3.1. Improving productivity and energy losses management at RTE and ERDF

2.3.1.1. A regulatory incentive plan to minimise RTE and ERDF energy losses purchasing cost

As system operators are responsible for purchasing line losses, it has a considerable impact on tariffs. The average annual volume of line losses on RTE and ERDF grids is close to 33 TWh. Based on long-term predictions (over the next three years) of line losses volume, the system operator contracts on the Futures Power Exchanges for annual, quarterly and monthly products. Power Futures represent the largest portion of purchases related to line losses compensation (approximately 95% of total cost).

Deviations between forecast amounts and actual amounts for this cost item are carried over to the balance of the expense and revenue clawback account according to the principles described in Section 2.2.3. CRE nonetheless exercises its control to ensure that RTE and ERDF employ their best efforts to minimise this cost. With this in mind, CRE has proposed to set up incentives to minimise the purchasing cost of power Futures.

The targeted purchasing cost for these products will be established annually to reflect the purchasing conditions of a system operator defined as the reference. It will be calculated on the basis of a non-weighted arithmetic mean of the Daily Settlement Price observed ex post on the French Power Futures Exchange EEX Power Derivatives (EPD) and the energy volume declared by the system operator for each power Futures required to cover forecast needs for the year.

The difference between the target cost and the cost of power Futures actually purchased is divided equally between customers and system operators. The cost borne by customers for poor system operator performance (purchase cost greater than target cost) is nonetheless limited to €20 million for RTE and €40 million for ERDF. These caps are designed

CRE decided to create a working group to study the terms of compensating for losses. The purpose of this group is to analyse possible alternatives.

to protect customers from excessive cost increases due to system operator inefficiency and are justified by the fact that system operators have control over risk through their purchasing policy.

2.3.1.2. Incentives to bring about controlled change in RTE and ERDF operating costs

To encourage system operators to improve technical economic efficiency in their practices in the 2009-2012 tariff period, CRE has proposed incentives to control operating costs. The authorised revenue path of RTE and ERDF will incorporate the productivity objectives proposed by the system operators to meet this objective.

System operators will also be encouraged to pursue other efforts to augment productivity during the tariff period. If the amount of controlled operating costs actually incurred during the year is less than the amount defined *ex ante* adjusted for inflation, the additional productivity gains will be divided equally between the system operator and customers.

These measures will be accompanied by an incentive mechanism encouraging system operators to improve quality of service to customers so that quality is not sacrificed to productivity.

2.3.2. Monitoring of quality

2.3.2.1. CRE's monitoring of quality of public electricity grids service

CRE monitors quality on public transmission and distribution grids using indicators comparable on a year-to-year basis, covering all quality aspects of electricity: continuity of supply, voltage quality and quality of service.

Through monitoring, public electricity grid performance can be characterised to achieve several objectives:
- check trends of quality indicators;
- prevent any locally quality deterioration;
- assess quality targets set out in regulatory texts;
- benchmark the international results carried out through the Council of European Energy Regulators (CEER).

2.3.2.2. Performance on the public electricity transmission grid

Data collected by CRE relating to performance of the public electricity transmission grid is broken down into the following categories:
- continuity of supply and voltage quality;
- quality of operator service, including management of complaints and commitments related to the quality approach;
- monitoring the user's obligation to exercise caution, particularly with regards to the number of disruptive users.

RTE transmits these information annually or quarterly – following indicator type – for seven geographical areas defined by the grid operator's territorial organisation, referred to as "regions", as illustrated in FIGURE 8 p. 46.

From 2002 to 2007, CRE observed a notable deterioration in the quality of supply in the West, South-West, and North-East transmission grids. Deterioration was particularly dip in the East region. This analysis confirmed results obtained on the public distribution grids for the two regions (administrative area) in southern France.

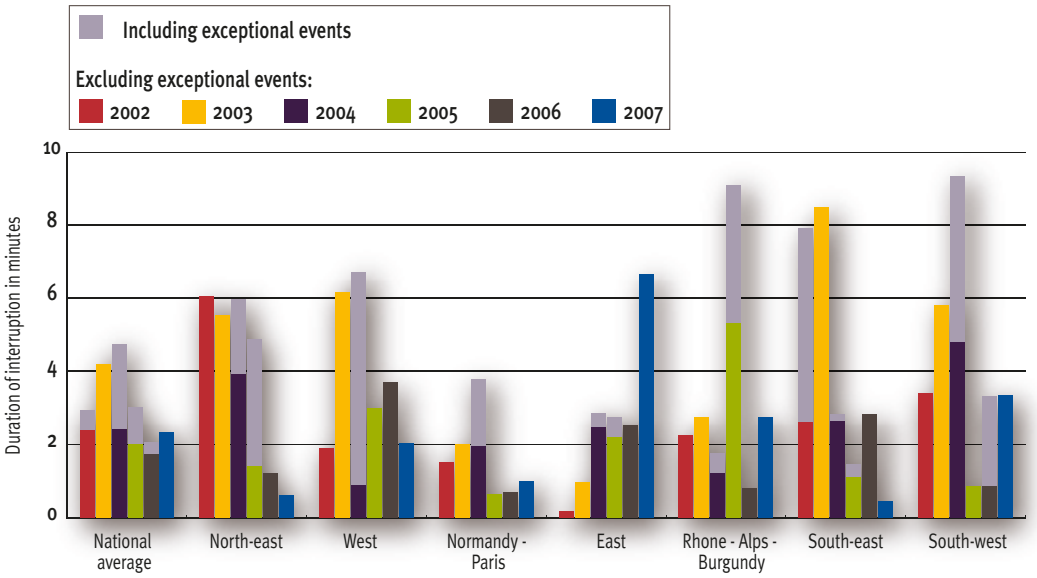
2.3.2.3. Performance on public electricity distribution grids operated by ERDF

Monitoring indicators distribution grid quality was broken down into five themes:
- knowledge of distribution assets, including a description of the grid and customer status as well as physical development of grid infrastructure;
- continuity of supply and voltage quality;
- quality of operator service, including connection conditions;
- routine management of contracts and commitments related to quality approach, and monitoring of metering activity.

ERDF transmits this information annually.

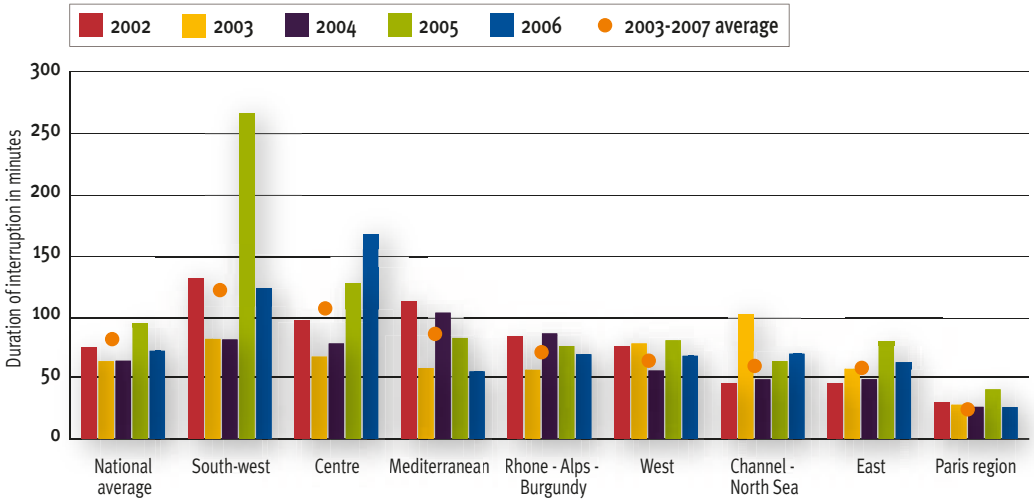
The indicators are known for each eight geographical areas defined by ERDF referred to as "regions" (different from the regions defined by RTE), or nationwide.

FIGURE 8
TRENDS ANNUAL EQUIVALENT DURATION FOR THE LONG INTERRUPTION PER RTE'S REGION ON THE PUBLIC TRANSMISSION GRID – 2002-2007 RESULTS



Source: RTE – Analysis: CRE

FIGURE 9
REGIONAL COMPARISON OF ANNUAL EQUIVALENT DURATION FOR THE LONG INTERRUPTION ON PUBLIC DISTRIBUTION GRIDS OPERATED BY ERDF (CUSTOMERS CONNECTED TO LOW VOLTAGE SUPPLY, ATTRIBUTABLE ANY CAUSE) – 2003-2007 RESULTS



Source: ERDF – Analysis: CRE

Since 2003, the EDF distributor (ERD then ERDF) has provided CRE with an annual activity report on the quality of public distribution grids at the franchise scale. This activity report provides a detailed performance analysis and a close look at defects detected on the grid. Nonetheless, due to changes in its IT system, ERDF has not yet submitted all its 2007 indicators to CRE, who therefore does not have all the data necessary to conduct an analysis.

One of the main indicators of continuity of supply is the annual equivalent duration for the long interruption at low-voltage delivery points FIGURE 9.

These indicators are known at the regional and concession level, and can be used to detect "black spots" on the distribution grid. Indeed a certain uniformity has been established on a regional scale, strong disparities appear at the concession (administrative area) level TABLE 4.

The annual equivalent duration for the long interruption may be higher at the concession level than at the national level. For example, in 2006, annual equivalent duration for the long interruption was 4,838 minutes for one of the municipalities in the "département" (administrative area) Aude i.e. more than three days. Nonetheless, the record annual equivalent duration for the long interruption in the last four years are often explained by exceptional events, such as flooding. By contrast, in the 10 cities with the most customers, the annual equivalent duration for the long interruption is less than the average for the respective regions in which these cities are located TABLE 5.

TABLE 4
ANNUAL EQUIVALENT DURATION FOR THE LONG INTERRUPTION FOR CONCESSIONS (ADMINISTRATIVE AREAS)

Average annual long outage time for concessions (in minutes)	2007	2006	2005	2004
Maximum	1,551	4,838	1,768	1,484
Average	99	181	92	70
Minimum	0	0	0	0

Source: ERDF – Analysis: CRE

TABLE 5
ANNUAL EQUIVALENT DURATION FOR THE LONG INTERRUPTION FOR CITIES WITH THE MOST CUSTOMERS

		Annual average duration for the long interruption to LV connection point (in minutes)			
Cities	Number of distribution customers in 2007 (in thousands)	2007	2006	2005	2005-2007 average
Paris	1,604	10.1	33.0	17.9	20.3
Marseille	472	32.9	48.4	102.3	61.2
Lyon	315	21.2	15.1	29.8	22.0
Toulouse	275	23.7	24.0	12.5	20.1
Nice	247	46.9	59.9	87.3	64.7
Nantes	174	21.9	43.3	38.8	34.7
Bordeaux	167	98.6	114.6	83.9	99.0
Montpellier	160	39.5	35.5	35.5	36.8
Lille	139	37.5	42.2	23.5	34.4
Rennes	125	8.5	33.5	17.8	19.9

Source: ERDF – Analysis: CRE

2.3.2.4. Quality of service on public electricity grids

Quality of service is monitored by indicators, some of which exist since 2003. They are defined separately by each system operator and characterise the relationship between a system operator or supplier and the customer.

The transmission network operator, RTE, uses 10 indicators to monitor service quality. Defined according to the type of customer, they are submitted quarterly or annually, depending on the case. Since transmission grid customers are a special case, they are monitored through a specific set of indicators that reflect the relevant contractual terms and conditions, such as:
- the threshold of annual commitments about long interruptions, per type of customer;
- the threshold of annual commitments about short interruptions, per type of customer;
- the number of contracts where commitments have been customised for one or several of the following criteria: long or short interruptions, voltage dips, per type of customer;
- the percentage of contracts where commitments have been fulfilled on long and short interruptions, and voltage dips per month, per type of customer.

ERDF monitors 18 different national or regional indicators. They cover connection conditions, quality of service in the strict sense (number of connection points commissioning , average time for connecting a new LV customer to the network, number of customers to receive compensation, etc.), and metering activities (rate of meter read for LV customers, rate of meter self read of LV customers, meter failure rate, etc.)

As mentioned previously, however, due to changes in its monitoring system, ERDF has only submitted data for seven indicators regarding quality of service out of the 18 monitored in 2007. CRE therefore has not yet collected all the data necessary to conduct an analysis.

The history of indicators about quality of service was used as a basis for discussion in setting up incentive regulation during preparatory work for TURPE 3.

3. Investment and tariffs for gas infrastructure and network use

3.1. The regulator ensures that necessary investment in transmission networks is planned and carried out

3.1.1. Semi-annual report on execution of 2008 investment plans for gas infrastructure

Since the Law of 7 December 2006 came into force, CRE has had the authority to approve the investment plans of the two gas TSOs, GRTgaz and TIGF.

CRE decisions relative to gas transmission investment plans are based on the following major issues:
- whether the investment plan features projects or project studies on measures necessary to keep the market operating correctly;
- whether market players are treated in a transparent and non-discriminatory manner, for example, with regards to connecting LNG terminals and combined-cycle gas turbines;
- whether project cost control is included in the investment plans.

In deliberations held on 12 December 2007, CRE approved the annual investment plans of the gas TSOs, GRTgaz and TIGF, for the first time, for the respective amounts of €585 million and €191 million.

On 9 October 2008, GRTgaz and TIGF submitted status reports to CRE on execution of their investment plans for the first half of 2008.

3.1.1.1. GRTgaz

In reviewing the plans, CRE noted a €10 million increase in the amount forecast for investment expenditure in 2008, which is now at €595 million. The difference is explained by the rise in project costs and the increasing number of studies for connecting combined-cycle gas turbines.

The state of progress of major GRTgaz projects nonetheless complies with the plan approved by CRE.

3.1.1.2. TIGF

The review process disclosed a €4 million drop in the forecast amount of investment costs for 2008, which is now at €187 million. The difference is explained by work postponed from 2008 to 2009. Phase 1 of the Artère de Guyenne pipeline project has fallen far behind schedule due to compression problems, but this has not affected operations, since commissioning of the Fos Cavaou terminal has also been pushed back. The project cost has risen considerably compared to the forecast budget.

According to TIGF, the extra cost comes from a substantial rise in expenditure for engineering, materials and structural works required to comply with new regulations on safety and the environment, and to anticipate Phase 2 of pipeline development. CRE will initiate an audit on Phase 1 of the Artère de Guyenne project. It has also begun an analysis of TSO unit investment costs so that it can help to approve the investment plans of the two TSOs.

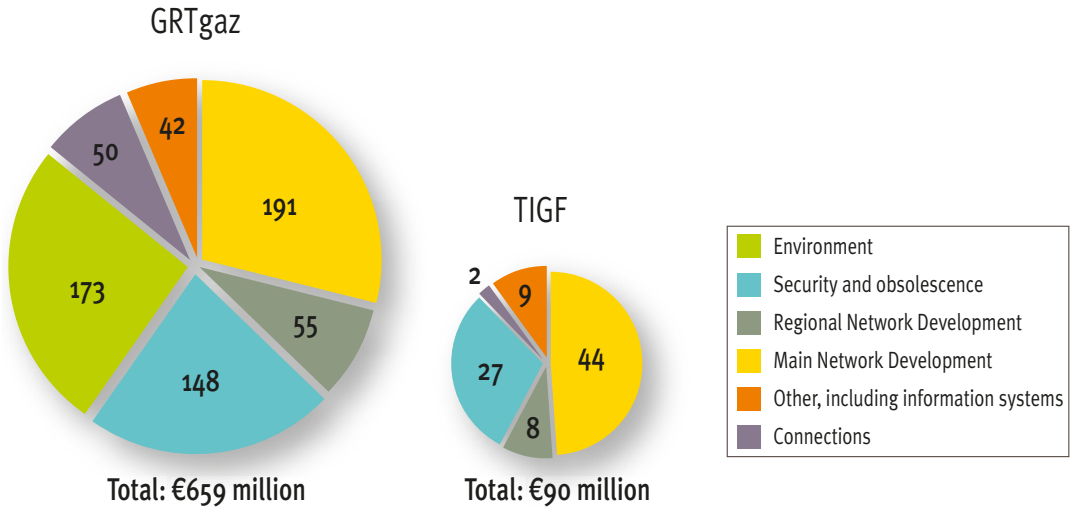
3.1.2. Approval of 2009 annual investment plans defined by natural gas transmission system operators

In deliberation held on 18 December 2008, CRE approved the annual investment plans of the natural gas transmission system operators GRTgaz and TIGF. GRTgaz's 2009 investment plan amounts to €659 million, and TIGF's comes to €90 million FIGURE 10.

3.1.2.1. GRTgaz

Investment budgeted for this year is on the rise compared to amounts forecast in the GRTgaz tariff for network use applicable as of 1 January 2009. The increase corresponds mainly to acceleration of certain projects and an upward adjustment reflecting the impact of the government order on pipeline transportation, entailing greater expenditure for safety issues.

FIGURE 10
GRTgaz AND TIGF INVESTMENT PLANS FOR 2009 (IN MILLIONS OF EUROS)



Source: CRE

In 2009, the most important GRTgaz projects in terms of market operation are:
- the second phase of increasing entry capacity at Obergailbach, planned for November 2009;
- remaining work to merge the North, East and West balancing zones, effective 1 January 2009;
- final connection of the Fos Cavaou terminal to the main transmission network, scheduled for some time in 2009;
- gas deodorisation at Taisnières H, still in the design phase, with startup pushed back from 2010 to 2012.

The investment plan also includes studies on investment for improving operation of the gas market, including:
- development of the main network in the North zone to increase entry capacity at Taisnières, accommodate LNG terminal projects in this zone (Antifer, Dunkirk or Montoir extension) and increase capacity on the North-South link;
- development of the main network in the South zone to increase capacity at interconnections between France and Spain on the west branch (*Artère de Guyenne,* Phase 2) and east branch *(Artère du Rhône)*, accommodate the Fos Faster LNG terminal and increase capacity on the North-South link;
- connections of Antifer, Montoir, Dunkirk and Fos Faster LNG terminal.

Several projects to connect combined-cycle gas turbines are also featured in the 2009 investment plan. Three connection contracts were signed in 2008, bringing the total number of combined-cycle gas turbines to 12 on the GRTgaz network. 10 other projects are currently being studied.

3.1.2.2. TIGF

Major projects planned by TIGF for 2009 include the following:
- completion of Phase 1 of the *Artère de Guyenne* project. With startup scheduled for mid-2009, this project will increase transportation capacity between the GRTgaz South zone and the TIGF zone;
- the first phase of the project to develop interconnection capacity with Spain at Larrau, with commissioning planned for winter 2009-2010.

Several studies aiming to improve gas market operation have also been planned for 2009:
- the second phase of the project to develop interconnection capacity with Spain at Larrau, planned for 2013;
- increased transportation capacity between the GRTgaz South zone and the TIGF zone (*Artère de Guyenne*, Phase 2), planned for 2012.

For 2009, TIGF has also scheduled studies on connection of two projected combined-cycle gas turbines and a projected LNG terminal at the Verdon site.

3.1.3. Projected 10-year investment plans for GRTgaz and TIGF

The 10-year investment plans presented by GRTgaz (in June 2008) and TIGF (in October 2008) amounted to €5.4 billion and €1.7 billion, respectively.

The 10-year investment plans presented by GRTgaz (in June 2008) and TIGF (in October 2008) amounted to €5.4 billion and €1.7 billion, respectively. This represents a substantial increase compared to previous years.

The 2008-2017 plans for GRTgaz and TIGF are characterised mainly by:
- a steep rise in the number of large-scale projects;
- greater uncertainty with regards to execution of investment in the next 10 years.

The plans include major projects designed to develop entry capacity (interconnections and LNG terminals) and alleviate network congestion. These projects would contribute considerably to reinforcing security of supply. They would also provide arbitrage opportunities for shippers between several sources of gas supply, resulting in better terms and conditions for final customers.

The main projects in the TSOs' investment plans are the following.

3.1.3.1. GRTgaz

The main projects to upgrade gas entry points in the North zone are covered in the GRTgaz investment plan.

They include developing interconnections with Belgium and Germany, monitored by the North-West Regional Initiatives:
- upgrading the Obergailbach interconnection following the E.ON Gastransport open season for 2009 and 2010, initiated in May 2005;
- upgrading the Taisnières H interconnection in the direction from Belgium to France for 2012.

Plans also include connecting the projected LNG terminals in the North zone (Antifer and Dunkirk).

GRTgaz proposes development of the main network in the North zone that would be prerequisite to the other projects and would require joint funding.

The main projects to develop gas entry points in the South zone are also covered in the GRTgaz investment plan.

Marketing of capacity on the North-South link at the end of 2007 revealed heavy congestion in North-to-South contracted sales, since shippers' total capacity demand was seven times greater than capacity offered by GRTgaz.

In its 10-year investment plan GRTgaz proposes to eliminate this bottleneck gradually in two phases:
- through a 200 GWh/d increase in transportation capacity between GRTgaz's North zone and South zone by 2015, for a cost of €1.9 billion (certain investment costs will be shared with other projects);
- by eliminating the link through a merger of the North and South zones by 2017, for an additional cost of €1 billion.

In compliance with the plan defined within the ERGEG South Regional Initiative, the GRTgaz 10-year plan incorporates two lines of development for interconnection capacity with Spain:
- increasing capacity in both directions at the Larrau point in 2013;
- creating a new interconnection point at Perthus by 2015.

INSET 10
FUTURE HARMONISATION ON A EUROPEAN SCALE: GUIDELINES FOR TSO'S 10-YEAR INVESTMENT PLAN

Legislation on the Third Energy Package stipulates that every two years ENTSOG must publish a non-binding 10-year network development plan. The purpose is to provide a long-term view of how gas infrastructure will evolve in Europe in order to identify vulnerable points in the system, according to different supply and demand scenarios, and determine which investments should be given priority.

Instrumental to security of supply, the 10-year investment plan should feature a detailed map of existing infrastructure and planned developments, take inventory of announced import projects, and present simulations on how to improve techniques used for coordination between neighbouring operators in the event of a supply crisis. The European plan should be compatible with national and regional plans so as to form a coherent framework.

ACER will be required to issue at least an opinion on the European plan and regulators will have the power to adopt national plans. ERGEG has therefore decided to draft recommandations on the European 10-year investment plan. This work is coordinated by CRE.

3.1.3.2. TIGF

The main projects to develop gas entry points from Spain are also covered in the TIGF 10-year investment plan, in compliance with the plan defined within the South Regional Initiative led by ERGEG:
- increasing capacity in both directions at the Larrau point in 2013;
- creating a new interconnection point at Perthus by 2015.

TIGF's 10-year plan includes connection of the Verdon LNG terminal planned for 2015 INSET p. 51.

3.2. New gas transmission tariffs became effective on 1 January 2009 (in deliberations of 10 July 2008)

On 1 January 2009, the fourth tariff for the use of public transmission networks (ATRT4) came into force. It results from a CRE proposal submitted to the French economy and energy ministers on 10 July 2008.

The new tariffs reflect two major changes:
- merger of three balancing zones (North, East and West) on the GRTgaz network into a single North Balancing Zone, with no change in firm entry capacity. This single zone meets several objectives: first, the various sources of gas made available through suppliers can compete on a single market; second, operators have access to a large customer base, allowing final customers to benefit from more competitive sources; and third, creating a new French hub generates enough liquidity to attract new stakeholders to the French gas market;
- elimination of congestion between GRTgaz and TIGF networks: there is a single contractual interface point between the two zones and capacity sales are coordinated.

These changes should lead to a marked improvement in market operation.

3.2.1. The new return-on-investment framework provides operators with greater visibility

In the new natural gas tariff, the principles defining return on investment and investment incentives have been set for four years for both TSOs. By extending this period, the regulator has given transmission system operators greater visibility regarding their expected revenue.

The rate of return for the previous tariff, 7.25% (real value, before tax), was renewed in the ATRT4 tariff.

A new investment incentive scheme has been laid out for gas transmission networks, based on the following:
- elimination of the 125 basis-point premium previously allocated to any investment on the transmission network that was placed in service by 1 January 2004;
- allocation of a 300 basis-point premium for 10 years for any investment that creates additional capacity on the main network and reduces the number of balancing zones (replacing the case-by-case decisions made in the previous programme).

It is important to emphasise that past decisions on premiums and increases in return rates will remain valid once this new programme takes effect.

3.2.2. GRTgaz tariff path

For GRTgaz, the tariff period is increased to four years, with a mechanism that determines authorised revenue, and incentive-based regulation that stimulates productivity. GRTgaz's detailed tariff scale will be updated on 1 April each year as of 2010 to take into account updated forecasts of capacity bookings, inflation data and any significant fluctuations in the price of energy.

The authorised revenue path for GRTgaz, excluding any impact from the expense and revenue clawback account, is defined by the following:

The new tariffs reflect two major changes: merger of three balancing zones (North, East and West) on the GRTgaz network and elimination of congestion between GRTgaz and TIGF networks.

By increasing gas entry capacity in France and eliminating domestic network congestion, new investment will reinforce security of supply and foster competitiveness.

- the capital cost path calculated as a function of GRTgaz investment forecasts;
- the operating cost path calculated on the following basis:
  - for 2009, based on costs retained by CRE,
  - for each year from 2010 to 2012, excluding any significant fluctuations in the price of energy, based on costs from the previous year multiplied by a coefficient corresponding to the sum of inflation (the INSEE consumer price index excluding tobacco) and a factor of +1.1%.

Given the level of forecast bookings, GRTgaz's average tariff, expressed in current euros, will increase by 6% in 2009 compared to its previous tariff. Over the 2010-2012 period, it should increase by about 2.8% per year.

These increases are explained primarily by the TSO's substantial investment plans, expenditure for compliance with safety regulations and energy costs.

3.2.3. TIGF tariff

For TIGF, the tariff period has been set to two years so that any eventual impact of the new regulations on network safety can be correctly perceived and taken into account accordingly. The detailed tariff scale for TIGF will be reviewed on 1 April 2010 to ensure that it is consistent with GRTgaz's tariff structure and to take into account any significant fluctuations in the price of energy. This tariff reflects all expenses budgeted by TIGF to reinforce security and make the investments required for network development.

Given bookings forecasts, there will be a 10% increase (in constant euros) in the average TIGF tariff over 2009-2010 compared to the previous tariff. The reasons for this increase are the same as those that apply to GRTgaz.

For both transmission system operators, these increases are accompanied by an improvement in the service provided to network customers resulting from restructuration of the transportation offer on the gas transmission networks. By increasing gas entry capacity in France and eliminating domestic network congestion, new investment will reinforce security of supply and foster competitiveness.

3.3. Incentive-based regulation is designed to encourage system operators to improve their efficiency

3.3.1. Stimulating productivity

3.3.1.1. GRTgaz

The tariff scale is based on cost assumptions (authorised revenue) and capacity subscriptions.

For GRTgaz, the authorised revenue path is set for four years, with productivity incentives designed to encourage the operator to control operating costs, while allowing customers to benefit from part of the productivity gains.

Any productivity gains achieved by GRTgaz for a defined base of controllable operating costs, will be calculated at the end of the tariff period. GRTgaz will retain 50% of these gains, the remaining 50% being deducted from costs to be recovered in the next tariff period.

CRE also set up a regulatory system with quality-of-service incentives for both TSOs in key business areas covering metering, publication of maintenance programmes, the environment and quality of the shipper relationship.

Certain published indicators are linked to a system of financial incentives based on bonuses or penalties.

The purpose of this measure is to maintain, or even improve the quality of service provided to network customers and to prevent any deterioration that could occur as operators strive to achieve productivity gains.

The quality-of-service incentive system could be adjusted, based on appropriate experience feedback.

3.3.1.2. GrDF

Regulatory measures relative to the tariffs for use of the GRTgaz and TIGF public natural gas transmission networks (ATRT4), effective as of 1 January 2009, reflect the logical continuation of changes introduced in the last tariff for use of the GrDF public natural gas distribution networks (ATRD3) on 1 July 2008.

Tariffs are multiannual (covering four years, important for the rate of return), a cost-control incentive is introduced by asking the operator to achieve productivity gains and a quality-of-service incentive is set up through regulatory measures, accompanied by monitoring indicators INSET 11.

3.3.2. Monitoring quality

3.3.2.1. Monitoring quality of service on the GrDF gas distribution network

Definition of indicators

The tariff for use of the GrDF public natural gas distribution network (ATRD3), effective as of 1 July 2008 in application of the Order of 2 June 2008, establishes a regulatory mechanism to introduce a quality-of-service incentive for GrDF that is consistent with supplier and customer expectations on issues such as the quality of gas flow, meter readings and invoicing, time required to perform standard catalogue services, repair time, compliance with procedures, availability of DSO web portals, quality and continuity of supply.

To monitor the operator's quality of service, 29 indicators (five of which are tied to financial incentives) have been applied to key areas of activity:
- quotations and interventions;
- relations with final customers;
- the supplier relationship;
- information exchanged with TSOs;
- meter reading and invoicing;
- the environment.

The five indicators that can lead to a bonus or penalty are:
- the quality of daily readings sent to the TSOs for daily allocation to the transport/distribution interface points;
- time required to send daily estimates of the quantities unloaded by suppliers at transport/distribution interface points to the TSOs;
- availability rate of the Omega web portal;
- number of scheduled appointments not kept by GrDF;
- rate of response to supplier claims within 30 days.

Monitoring the indicators

Starting from 1 July 2008, 25 indicators, including the five tied to financial incentives, were monitored by GrDF. Implementation of the environmental indicator is not scheduled before 1 July 2009 and the three indicators concerning the time required to publish readings on Omega are currently being reviewed by GrDF.

Since the beginning of October 2008, results for the 25 indicators have been published monthly on GrDF's Omega portal, but for the moment only suppliers can access this data. GrDF will publish these results in a format open to the general public so that they are made known to all market players, including suppliers, final customers, local government administrations, public authorities, other regulators, etc.

CRE is considering publishing a semi-annual report on the quality of service provided by distribution

system operators and including the major conclusions in its annual report.

3.3.2.2. Monitoring quality of service on the GRTgaz and TIGF gas transmission networks

The tariff for using transmission networks effective since 1 January 2009 includes a regulatory mechanism to establish quality-of-service incentives.

This mechanism is designed to maintain, or even improve, the quality of service provided by TSOs and to prevent any deterioration that could occur as operators strive to achieve productivity gains. It covers the environment, maintenance programmes, quality of the shipper relationship and quality of allocation and meter readings. Safety is not covered by this mechanism, since it is subject to regulatory obligations.

The regulatory mechanism that drives the quality-of-service incentive consists of three types of indicator:
- indicators monitored by CRE, with publication of the results;
- indicators monitored by CRE, with a set target and publication of results;
- indicators monitored by CRE, with a bonus (or penalty) applied when pre-defined targets are surpassed (or not met), with publication of the results. The financial incentives consist of bonuses or penalties that are paid or collected through the expense and revenue clawback account.

The mechanism is based on 13 indicators, three of which are tied to financial incentives. All of these indicators are submitted regularly to CRE by the TSOs and are published on their web sites. They will eventually be certified by an independent authority.

INSET 11
ANTARGAZ BECOMES THE 24TH GAS DSO

- On 25 June 2008, CRE proposed the tariff for use of the natural gas distribution network in Schweighouse-Thann to Antargaz, which has been granted a concession to operate this network. The tariff was approved by the ministers in charge of the economy and energy on 20 August 2008.
- This was the first time the tariff rules relative to new concessions stipulated in the Order of 2 June 2008 had been applied, the tariff scale consisting of applying a coefficient of 2.45 to all the items in the GrDF tariff scale that became effective on 1 July 2008.
- The network in the municipality of Schweighouse-Thann, a village in the upper Rhine area with a population of 800, was commissioned successfully on 15 October 2008 and serves 90 homes.
- This natural gas concession is the first to be assigned to an operator other than GrDF or one of the 22 local distribution companies not affiliated with a group conducting business as a natural gas supplier, making Antargaz the 24th natural gas distribution system operator in France.

Reducing carbon emissions and controlling energy demand require upgraded electricity grids, financial incentives and smart metering systems

EU discussions on the Energy and Climate Package, the Third Energy Package and their interaction demonstrate that energy and the environment are two inextricably linked issues.

The draft European directive, already being transposed to French law in the "Grenelle 1" bill, sets an ambitious target for France, with an objective of 23% of electrical power to be generated from renewable energy sources by 2020.

This will require substantial development of all the related sectors. The CRE's role is to ensure that the development of renewable energy sources is carried out under reasonable economic conditions and, with this in mind, that the CRE decides on invitations to tender and tariffs for purchasing power generated from these sources.

1. Negotiations on the Energy and Climate Package show that energy and the environment are inseparable

On 20 October 2008, Member States in the EU Environment Council encouraged efforts to come to an agreement, on first reading, on the climate package. They did not, however, broach the subject of sensitive details in the package (priority access for renewable energy sources, etc.). The main topics under discussion were the emissions trading scheme and the article on priority access to the electricity grid for power generated from renewable energy sources, as mentioned in the directive on the promotion of the use of energy produced from renewable energy sources.

1.1. The Emissions Trading Scheme

The main point of discord between the European Parliament and the Member States was the option of auctioning emission quotas. Countries relying mainly on coal-fired power plants were afraid that including the electricity sector in this system would raise the price of electricity as of 2013, particularly if free quotas were eliminated. A group of nine countries threatened to form a blocking minority at the December Council meeting to obtain significant concessions. Member States finally came to a political agreement on the energy and climate package during the European Council meeting on 11 and 12 December 2008 and the package was definitively adopted on first reading by the European Parliament on 17 December 2008.

The auction system will apply to electricity generators in 2013. However, in countries where over 30% of the electricity is generated from a single fossil fuel [1], facilities will enter the system gradually (at least 30% in 2013, reaching 100% in 2020 at the latest). 10 per cent of the free quotas will be reserved for the most vulnerable countries, which means that Bulgaria, Cyprus, Hungary, Malta, the Baltic states, Poland, the Czech Republic and Romania will be exempt from the auction system.

1.2. Priority access as defined in the directive promoting energy generated from renewable energy sources

Discussions on the climate package particularly focussed on giving priority grid access (or guaranteed access) to power generating facilities that are based on renewable energy sources. This provision, ratified in the energy and climate package adopted on 17 December 2008, states that system operators must give priority to connection demands for power generating facilities using renewable energy sources. The electricity produced by these facilities would also be given priority on injection processes.

Positions diverged over this article for several months between, on the one side, the European Parliament and the European Commission, who favoured giving priority grid access to renewable energies, and on the other, Member States, who preferred a more flexible formulation that would take into consideration the constraining characteristics of the electricity grids and of the security of supply.

CEER brought the implications this measure would hold for system balance, security of supply and the consequent grid investment needs to the EU legislators' attention.

EU institutions finally chose to opt for a certain degree of flexibility in this measure by stating that it could only be applied if the reliability and security of the electricity grid complied with requirements.

2. Massive development of renewable energy sources will require upgrading and integrating electricity grids in Europe

Integration of these new sources of renewable power must be "safe and reliable", as recommended in the report on energy security presented to the European Council during the French Presidency of the European Union on 16 October 2008.

2.1. Development of renewable energy sources can only be envisaged in a European context

Optimising management of wind-power generation on a large scale, particularly on a European scale, would have the advantage of improving operational security. This is another reason why the CRE promotes market integration. With this goal in mind, the CRE encourages projects aiming at developing high performance mechanisms for intraday exchanges and balancing markets.

The long-term investment plan for the public electricity transmission grid aims to accommodate 20,000 MW of renewable energy sources by 2020.

2.2. Operational security means monitoring the wind-power fleet

In its account of the draft version of the decree defining purchasing conditions for electricity generated by facilities using mechanical wind power, the CRE reminded readers that wind energy is by nature intermittent. To ensure the system's security and deal with this characteristic, it may be necessary for RTE to raise its power margins when wind-power generating capacity connected to the grid goes beyond 10 GW.

In an initiative supported by the CRE, RTE is establishing an experimental platform to connect wind-turbine power to the French power system, which should allow easier monitoring of the wind-power fleet, resulting in higher security when operating.

(1) In addition to this condition, gross domestic product per inhabitant at market prices must be less than 50% of the GDP per inhabitant in the EU.

2.3. The French transmission grid must be reinforced to integrate renewable energy sources

Development of the public electricity transmission grid is essential to accompanying the expansion of renewable energy sources and incorporating them into the power system. Connection capacity on the electricity grid is limited and depends on the geographical location of the renewable energy sources. For wind power, 6,000 to 7,000 MW could be connected to the existing grid. Beyond this volume, it is essential to upgrade existing infrastructure. The long-term investment plan for the public electricity transmission grid aims to accommodate 20,000 MW of renewable energy sources by 2020.

3. CRE assesses measures to support power generation based on renewable energy sources

3.1. Calls for tender cover electricity generated from biomass

In deliberations held on 5 June 2008, CRE concluded in favour of the minister's choice among the projects proposed for the biomass call for tender. After withdrawal of two projects, it gave a favourable opinion on the choice of two complementary projects. The average sales price of electricity generated by the selected projects amounted to €128/MWh, for total power of 310 MW.

CRE was called on to prepare the specifications for the third biomass call for tender, which it submitted for review on 4 December 2008. The call for tender was published by the French Minister for Energy on 6 January 2009 for a targeted electrical power of 250 MW.

3.2. CRE issued its opinion on the tariff for the purchase of wind power

On 30 October 2008 CRE issued an unfavourable opinion on the purchasing tariff for wind power proposed by the French Minister for Energy. This tariff is intended to replace the 2006 tariff, cancelled by the French Council of State and identical to the currently proposed tariff, but it was nonetheless adopted by an order dated 17 November 2008.

The purpose of CRE's opinion was not to judge the adequacy of using wind power to reach the renewable power objectives set by EU directives and French legislation, but simply to give an economic assessment of the tariff used to purchase wind-generated electricity. For a target of 17 GW of wind power by 2015, the purchasing tariff in question led to an extra cost for the community estimated between €1.7 and €2.1 billion/year. This extra cost is disproportionate to the expected benefits of wind power in terms of reduced CO_2 emissions, estimated at €450 million/year. In addition, beyond 5 to 10 GW of installed power, wind power incurs extra costs in terms of balancing and margins.

Extra costs due to wind power result in a cost per tonne of CO_2 avoided between €230 and €280 and up to €490 for off-shore wind farms. In comparison, the budgeted cost of public subsidising is estimated at €2 per tonne of CO_2 saved for thermal insulation of opaque walls, €31 for installing condensing boilers and €97 for installing geothermal heat pumps.

The development of wind power should be considered as one way of reducing the environmental impact of energy consumption. While this solution may be rational in European countries

INSET 12
SMART METERING SYSTEMS

For electricity:

- In the field of electricity, CRE keeps a close watch on projects to roll-out smart metering systems, either through the Audit Committee or the discussion groups.
- Regarding ERDF's smart metering project, working groups set out to analyse the operational consequences of large-scale roll-out of smart metering systems on the mass market. In September 2008, guidelines describing the impact of these systems on current processes and on the flow settlement mechanism were prepared by the Customer Working Group. The conclusions of this document will be issued in a technical directive to be transposed into procedures and rules.
- ERDF also presented the practical aspects of operating and organising the experiment and, based on this information, participants expressed what they expected from the tests.
- An evaluation grid was submitted for stakeholder consultation, in the context of the Customer Working Group. With it, CRE will be able to check that the smart metering systems complied with the CRE communication of 6 June 2007 and validate large-scale roll-out.
- For the major customers, ERDF presented its smart metering system project and gathered feedback from the participants.
- With regards to development of smart metering systems in areas covered by local distribution companies, on 12 November 2008, CRE collected testimony from a group of four of these companies who had developed a specific smart metering system project. It also heard testimony from federations of local distribution companies on issues concerning roll-out of these systems in their respective areas.
- CRE considered that these companies should coordinate their action to roll-out smart metering systems to ensure a certain degree of interoperability between systems and benefit from economies of scale. In 2009, a special working group on roll-out of smart metering systems by local distribution companies will be initiated for this purpose in the context of the Customer Working Group.
- On 3rd June 2008, CRE launched a public consultation concerning the draft decree for execution of Article 4-IV of the Law of 10th February 2000 relative to smart metering systems applied to electricity. Review of the contributions reveals that none of the stakeholders, except for an operator specialised in balancing, is against large-scale implementation of these systems. A few remarks were made, however, on roll-out conditions (lead time, cost, expected benefits).
- On 12th February 2009, CRE sent the minister its draft decree and, in 2009, will update the CRE communication of 6th June 2007 to incorporate remarks concerning the management of energy demand and reduction of carbon emissions (CO_2).
- Smart metering systems are the first step towards implementation of "smart grids". They will provide more accurate knowledge of grid operation and offer perspectives for the development of new applications in this field.

For gas:

- Various scenarios covering smart metering systems for the mass market were presented by GrDF and assessed within the Customer Working Group with regards to operator expectations in terms of functionality. The results of this work were published in an analysis report in October 2008, revealing the operators' preference for a "remote reporting" type solution, given regulatory requirements on gas which, for safety reasons, limit the possibility of conducting remote maintenance operations.
- Concerning monthly meter readings, in the context of the Customer Working Group, GrDF presented the results of an experiment conducted on remote meter reading that could lead to widespread use of the system. In parallel, the main features that the various operators expect from a smart metering system for "key accounts" on gas networks were analysed and summarised in a reference document published in November 2008. CRE is expected to report on this subject in 2009.

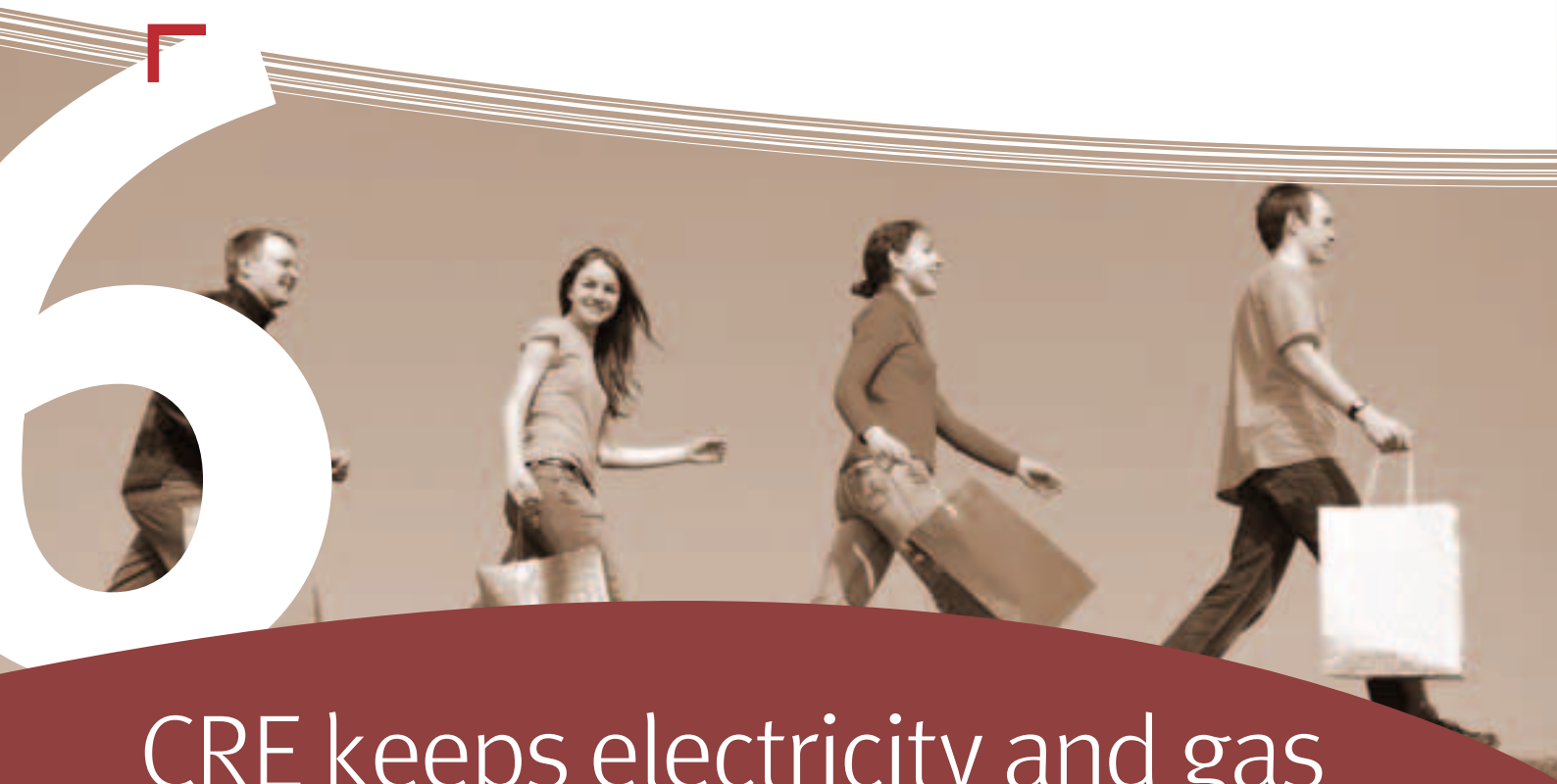
Due to the very small portion of fossil-fuel energy used by its power generators, today, France is one of the industrialised countries that emits the least amount of greenhouse gases per inhabitant.

where the conventional power plant fleet operates mainly on fossil fuels, as is the case in Germany, Spain and Denmark, it is less efficient in mainland France, where 78% of electricity is generated by nuclear power plants and 10% by hydraulic power plants.

Due to the very small portion of fossil-fuel energy used by its power generators, today, France is one of the industrialised countries that emits the least amount of greenhouse gases per inhabitant. In Corsica and overseas territories, however, where a large part of the electricity generated comes from plants fired by coal and low-power fuel oil, which are relatively costly and polluting, the development of wind power could quickly represent significant savings for the nation by reducing the cost of nationwide tariff equalisation.

For an installed power of 25 GW in 2020, the objective envisioned during the Environment Round Table, wind power will increasingly replace nuclear power and will call for greater use of fuel-fired power plants, which respond better to load variations. This will result in deterioration of the environmental balance and increased costs due to wind power, which will be greater than the rate ratio between the 17 GW power plant fleet and the 25 GW fleet.

Although the profitability of these projects has declined since 2006, in most cases it remains quite satisfactory. It is even considered obviously excessive for facilities located in mainland France operating 2,400 hours per year or more (at equivalent full power) and for facilities located in port areas.



CRE keeps electricity and gas markets **running smoothly**

In a context where energy is expensive, networks need to operate smoothly so that professional and household customers benefit from the same quality in transportation and can take advantage of a wide range of products on the market.

Opening markets to competition in France led to various changes in the second half of 2008. The household customer market for both gas and electricity shows a marked rise in activity, while the market for professionals is stable for electricity and more dynamic for gas.

1. CRE keeps an eye on wholesale market pricing

1.1. CRE published its first monitoring report for the year 2007

The Law of 7 December 2006 relative to the energy sector endowed CRE with new obligations involving monitoring the French wholesale markets for natural gas and electricity.

In this context, CRE defined a plan to gradually set up a system for monitoring all segments of the wholesale market. Work began with a study on systems implemented by other European and North American regulators.

In autumn 2007 CRE was ready to begin its first investigation on peak electricity prices observed on the Powernext exchange in October and November 2007. The conclusions of its findings were published in April 2008.

Following this specific analysis, CRE extended its study of market player behaviour to cover the entire year of 2007 for both gas and electricity. After developing tools and setting up the data collection systems and databases required, it surveyed close to 20 companies to obtain further information.

On 15 January 2009, CRE published a report giving the results of the first analyses conducted and specified its plan of action to gain a better understanding of certain types of behaviour observed.

On the electricity market, CRE reported the following facts:

- growth on the wholesale market was low;
- the relevance of the cost evaluation method applied to nuclear and hydroelectric power generation on the wholesale market remains to be verified;
- the power plant utilisation rate was optimal throughout most operating hours. A few situations were noted, however, in which the nuclear and fuel-oil plants appeared to be operating below capacity;
- transparency in generation must be improved;
- on the Powernext Day-ahead Auction, there were no signs of price manipulation;
- no signs of price manipulation were seen at interconnection points, but access conditions led to inefficient use of this capacity;
- VPP auctions generally appear to function satisfactorily, but certain transactions made by EDF on the futures market as auctions were approaching remain to be analysed.

On the gas market, CRE reported the following facts:

- activity on the wholesale market rose, but was nonetheless slow and concentrated in trading of short-term products for delivery to the GRTgaz North-H zone. Most transactions involved unbrokered bilateral trade;
- supply conditions for suppliers who are not incumbent operators in Europe were not satisfactory.

In an efficient market, at any given time, the price is determined by the marginal cost of the last required power plant to meet demand. Wholesale price formation therefore depends on the frequency of marginal generation for each type of generation technology and by the value assigned to the generated power. On the day-ahead market, the price reflected the value of power generated by nuclear and hydroelectric power plants, when generation was marginal, as determined by EDF. This value was generally higher than the marginal generation cost of the relevant power plants. A generator, even one with market power, can legitimately seek to optimise its income, as long as it does not constitute abusive use of market domination or price manipulation. It is therefore necessary to verify the relevance of the cost evaluation method applied to nuclear and hydroelectric power sold on the wholesale market.

Based on these observations, CRE will be conducting further analyses. It will ask for explanations or conduct audits on certain EDF decisions concerning:

- the method used by EDF to manage the various constraints encountered in operating its nuclear and hydroelectric power plants and to determine the corresponding cost of power sold on the wholesale market;
- situations where nuclear and fuel-oil-fired power plants appear to have been operating under capacity for approximately 20-30 hours;
- a few transactions on the futures market as VPP auctions approach.

Furthermore, CRE will survey market players to collect data on bilateral purchase and sale volume on the gas market, so that aggregate and anonymous data can be published. The methods used to collect this data will be defined in concert with market players.

1.2. CRE is to publish a special analysis report on gas and electricity transactions

In a press release dated 16 April 2008, CRE announced its intention to gather information on certain transactions concluded on the wholesale electricity and gas markets. The transactions in question date from 2007 and involve annual delivery (or seasonal delivery for gas) in 2008 and 2009.

After conducting a public consultation to define the practical aspects of data collection, the conclusions of which were published on 2 July 2008, CRE sent out formal surveys to the operators concerned. To lighten the workload of polled companies, for those who had conducted their transactions through brokers, CRE offered the possibility of letting the broker provide the necessary information.

CRE is currently analysing data collected for this survey. For example:

- for electricity, CRE is analysing price trends observed in 2007 and the reasons that led EDF to make significant purchases on the futures market.

In cooperation with financial regulators, CRE led studies on the transparency of wholesale market transactions and the obligation to archive data on these transactions.

It will focus closely on how this strategy affected short-term market operations in 2008;
- for gas, CRE is analysing growth in alternative supplier activity and how the end of the gas release programmes have affected supply.

1.3. CRE has opened a section on market monitoring on its web site

To keep market players informed of its monitoring procedures, CRE has opened a "Monitoring" section on its web site.

Information provided includes:
- regulatory texts defining CRE's monitoring obligations;
- monitoring and investigation reports published by CRE;
- reports on data collected periodically by CRE as part of its obligations;
- the data models and encryption certificates to be used when requesting information from CRE, to format and secure data exchanges;
- contact information for the CRE market monitoring team.

1.4. CRE has contributed to studies conducted by financial and energy regulators for CESR/ERGEG

In December 2007, the European Commission asked the Committee of European Securities Regulators (CESR) and the European Regulators' Group for Electricity and Gas (ERGEG) to issue a formal opinion in the context of the Third Energy Package.

The topics covered in this opinion involved the articulation of industrial and financial regulations relative to market abuse, transparency in trading, obligations to archive data tracing wholesale market transactions, and exchange of information between financial and industry regulators.

CRE took an active part in discussions and, in cooperation with financial regulators, led studies on the transparency of wholesale market transactions and the obligation to archive data tracing these transactions. It is in full agreement with the conclusions submitted to the European Commission on 1 October 2008 and 12 January 2009 INSET 13.

INSET 13
CESR/ERGEG JOINT OPINION SUBMITTED TO THE EUROPEAN COMMISSION

In June and December of 2008, the Committee of European Securities Regulators (CESR) and the European Regulators' Group for Electricity and Gas (ERGEG) submitted two opinions to the European Commission in the context of the Third Energy Package.

In these opinions, the regulators recommended the following:
- a legal framework appropriate for preventing market abuse on gas and electricity markets, since the Market Abuse Directive in effect on securities markets cannot be effectively applied to the energy market. One of the results should be greater market transparency;
- transparency requirements applied to standard products traded on the electricity and gas trading platforms (which would be obliged to publish detailed information in quasi-realtime conditions as well as end-of-day aggregate indicators, provided through non-discriminatory access);
- requirements on archiving certain data on wholesale market transactions, with no specific instructions on storage format, but with the obligation to submit the archived data electronically to the competent authorities at their request;
- a legal framework allowing financial regulators to send information on certain transactions under their jurisdiction to industry regulators.

2. CRE helps maintain efficient retail market functioning

2.1. CRE reviews the opening up of the market to competition in 2008

2.1.1. The electricity retail market

As of 31 December 2008, although regulated retail tariffs still applied to 96% of electricity customers (compared to 98% on 31 December 2007), the market share of alternative suppliers progressed during the year: 1,046,000 sites have now contracted with alternative suppliers, compared to 364,000 sites on 31 December 2007 FIGURE 11.

On the household segment:

In 2008, opening to market competition continued steadily: on an average, alternative suppliers gained 58,000 customers every month.

On 31 December 2008, they held a portfolio of 692,000 household customers, up from 31,000 on 31 December 2007. Incumbent suppliers shared the rest of the market (29.1 million customers on 31 December 2008).

On the non-household segment:

Opening to market competition stabilised in 2008. Alternative suppliers gained 1,250 professional customers per month and at the end of 2008 and held a portfolio of 354,000 non-household customers, compared to 333,000 on 31 December 2007.

As of 31 December 2008, alternative suppliers held 3% of the market in terms of both the number of sites and annual consumption. Sites under a TaRTAM contract (transitional regulated tariff for balancing markets) represented 19% of total annual consumption FIGURE 12.

2.1.2. The natural gas retail market

As of 31 December 2008, although regulated retail tariffs still applied to 91% of electricity customers (compared to 98% on 31 December 2007), the market share of alternative suppliers progressed during the year: 512,000 sites have now contracted with alternative suppliers, compared to 126,000 on 31 December 2007 FIGURE 13 p.68.

On the household segment:

In 2008, opening to market competition continued steadily: on an average, alternative suppliers gained 30,000 customers every month.

At the end of 2008, they held a portfolio of 416,000 household customers, up from the 54,000 counted at the beginning of 2007. Incumbent suppliers shared the rest of the market (10.4 million customers on 31 December 2008).

On the non-household segment:

Market growth continued in 2008, with alternative suppliers gaining 2,000 customers per month, on an average.

At the end of 2008, they held a portfolio of 96,000 household customers, compared to 72,000 at the beginning of 2007. Incumbent suppliers shared the rest of the market (590,000 million customers on 31 December 2008) FIGURE 14 p.68.

As of 31 December 2008, alternative suppliers held 4% of the market in terms of the number of sites (512,000) and 14% in annual consumption (72 TWh).

2.2. CRE consulted on regulated retail tariffs and social hardship tariffs

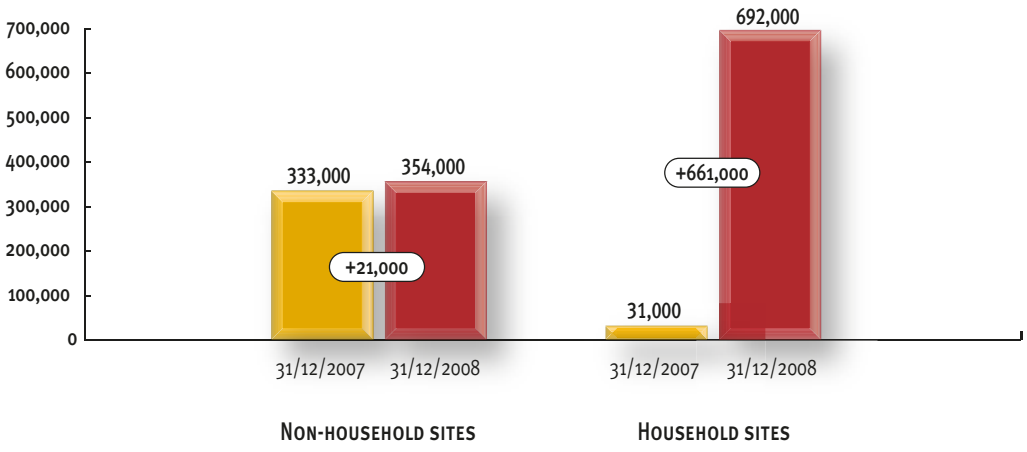
2.2.1. Regulated retail tariffs for electricity and gas

Regulated retail tariffs for electricity changed on 15 August 2008 (+2% on blue tariffs, +6% on yellow tariffs, +8% on green A tariffs). Consulted for the projected price rise, CRE checked whether the proposed tariffs covered EDF's costs, in compliance with the Law of 10 February 2000. This work was based on a reassessment of EDF's original book cost, estimated by a consulting firm as being between €41 and €43/MWh in 2007, the original book cost being €35/MWh.

FIGURE 11
ELECTRICITY: NATIONAL ALTERNATIVE SUPPLIERS (1) IN FRANCE

Sources: GRD, RTE, énergie-info – Analysis: CRE

FIGURE 12
ELECTRICITY: GROWTH IN NUMBER OF ALTERNATIVE SUPPLIER SITES



Sources: GRD, suppliers – Analysis: CRE

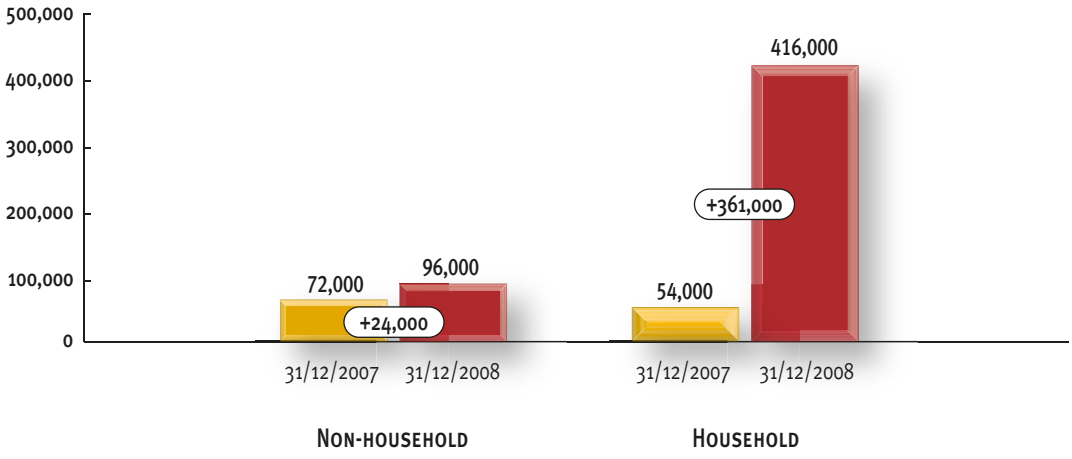
(1) The list groups together active suppliers registered in the supplier search engine according to postcode (at the www.energie-info.fr web site), i.e. suppliers who meet one of the following conditions:
- the supplier has at least one site under a single contract;
- the supplier is responsible for balancing at least one site through a distribution grid or transmission grid access contract (CARD/CART);
- the supplier is responsible for balancing and has delivered a portion of a site's consumption during the previous quarter.

National suppliers declared that they proposed offers in at least 90% of French municipalities connected to the electricity grid.

FIGURE 13
GAS: NATIONAL ALTERNATIVE SUPPLIERS (1) IN FRANCE

Sources: GRD, GRT, énergie-info – Analysis: CRE

FIGURE 14
GAS: GROWTH IN NUMBER OF ALTERNATIVE SUPPLIER SITES



Sources: GRT, GRD – Analysis: CRE

(1) The list groups together active suppliers registered in the supplier search engine according to postcode (at the www.energie-info.fr web site), i.e. shippers who supply at least one customer.
National suppliers declared that they proposed offers in at least 90% of French municipalities connected to the natural gas network. The deployment condition did not apply to non-household site transmission suppliers.

Based on this information, in the opinion issued on 11 August 2008, CRE considered that the tariff increases should have been higher, but were nonetheless an important first step on the way to covering costs as provided by law.

In this opinion, CRE asked that the regulated retail tariff structure and price levels be reassessed as soon as the next tariff for use of the public electricity grids comes into force. It participates in the working group set up for this purpose by the French economy and energy ministers.

In parallel, CRE was asked to review an increase in the tariff for transferring electricity to non-nationalised distributors, raised on an average basis by 8%. It ruled favourably on this increase, which was the first to occur since these tariffs became effective, although it considered the percentage too low.

In August and October 2008, regulated gas retail tariffs submitted by GDF Suez were based on a new equation for evaluating the supplier's average cost of procurement, sent to CRE on 21 July 2008.

Pending results of an audit on the new basis of calculation, the Commission did not give a favourable opinion on the submitted changes. They were nonetheless applied **FIGURE 15**.

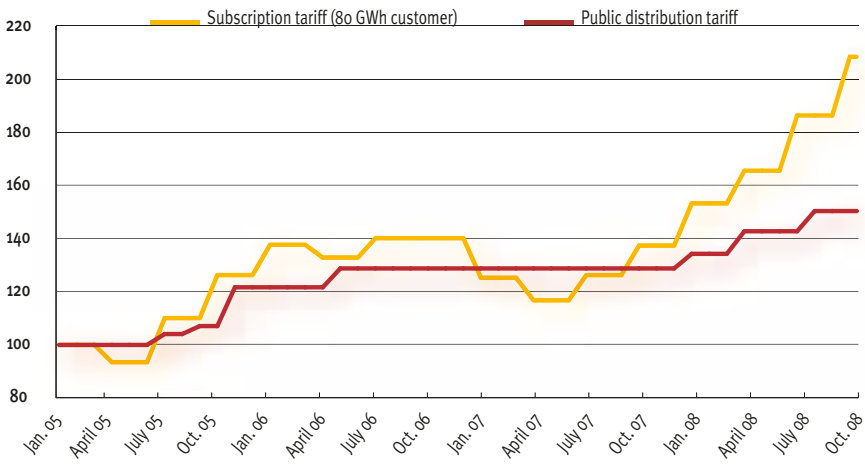
The audit on the new equation was initiated by CRE on 22 September 2008 and lasted three months.

In comparison with the previous equation, which was indexed on heavy fuel oil (with low sulphur content), domestic fuel oil and the euro/dollar exchange rate, the new equation introduces another index for the price of oil (Brent) expressed in euros. It also incorporates the results of negotiations conducted since 2006 between GDF Suez and its suppliers. This equation was established by GDF Suez and applies to 2008, 2009 and 2010.

In deliberations held on 17 December 2008, CRE indicated that the new equation provided a correct estimate of GDF Suez procurement costs on the French market. Another audit should nonetheless be conducted before the end of 2009 to check the robustness of the equation in a context of declining oil prices.

FIGURE 15

CHANGES IN GDF SUEZ TARIFFS FOR PUBLIC DISTRIBUTION AND SUBSCRIPTIONS BETWEEN JANUARY 2005 AND OCTOBER 2008 (JANUARY 2005 = 100)



Source: CRE

INSET 14
CONTRIBUTION TO THE PUBLIC ELECTRICITY SERVICE (CSPE)

The Contribution to the Public Electricity Service (CSPE) finances costs borne by EDF, non-nationalised distributors and Electricité de Mayotte (operator in French overseas territory) resulting from measures taken to support renewable energy sources and co-generation, tariff equalisation in favour of non-interconnected zones and social hardship measures. This contribution also finances the budget of the French National Energy Mediator. If it reaches an amount less than €4.5/MWh, it also serves to finance part of the costs related to the TaRTAM balancing market tariff.

Costs recognized for 2007

CRE assessed costs incurred for 2007 on the basis of supplier statements. Costs reached €1,964.1 million, broken down into €1,148.6 million for purchasing contracts in mainland France, €771.7 million for tariff equalisation and €43.9 million for social hardship measures.

The development of wind power and, to a lesser extent biomass and solar energy power, associated with declining wholesale market prices in 2007, explains why costs related to renewable energy sources tripled between 2006 and 2007. The total cost results from volume purchased by incumbent suppliers and the price differential between the purchase price for electricity and the market price.

Costs related to tariff equalisation grow every year basically due to rising consumption and fuel costs.

CRE reports cost forecasts for 2009

On 9 October 2008, CRE submitted forecast costs for 2009 to the amount of €1,885.1 million to the French Minister for Energy, including an adjustment of €353 million for costs in 2007. CRE also proposed a contribution to the public electricity service to cover these costs at €4.80/MWh for 2009.

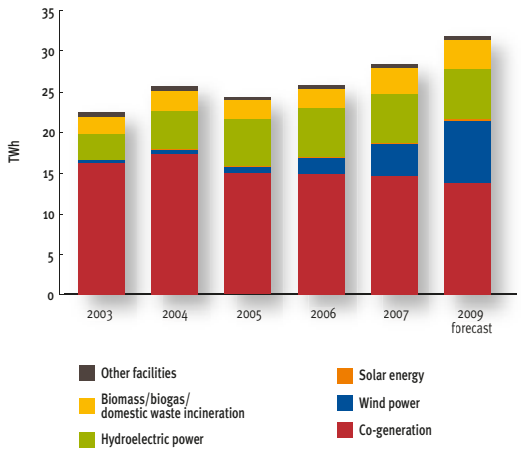
Since the government did not issue an order to set the contribution for 2009, however, the 2008 contribution was automatically renewed for 2009, in application of Article 5 of the Law of 10 February 2000. The Contribution to the Public Electricity Service applicable for 2009 is therefore €4.50/MWh.

On 11 February 2009, CRE published a new prediction of costs for public service obligations for 2009, taking into account changes in economic data since its previous proposal (lower futures prices for 2009, a lowered gas retail tariff, etc.), which led to a €352.6 million rise in costs, bringing them to €2,237.6 million. Based on this report, it notified the relevant suppliers of their costs.

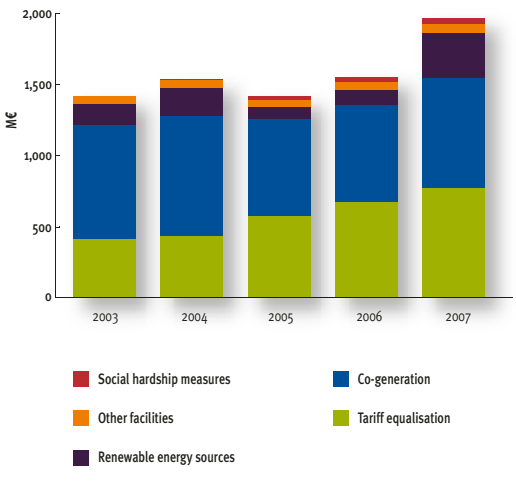
The theoretical contribution to cover these costs is €5.8/MWh, thereby exceeding the ceiling set by the Law of 10 February 2000, which is equal to 7% of the 6 kVA baseload regulated retail tariff (excluding subscriptions), in other words, the current €5.6/MWh. The difference between the applicable contribution and the theoretical figure will lead to a collection deficit estimated at €482 million, according to the forecast contribution base.

This collection deficit will lead to a compensation debt for EDF that will be taken into account in calculating the forecast public service costs for 2011 for these operators and will therefore not be offset until that time.

Volumes purchased in mainland France



Public service costs



Source: CRE

The mechanism to compensate suppliers bearing TaRTAM-related costs caused cash flow problems for these suppliers, in conflict with the compensation principle.

On 24 July 2008, CRE issued its opinion on a draft decree to harmonise various procedures used to set regulated gas retail tariffs for public distribution and subscriptions with Gaz de France, TEGAZ and local distribution companies. In the opinion, CRE put forward several recommendations specifying the procedure envisaged and how to make it more transparent.

2.2.2. Electricity and gas social tariffs

The Order of 5 August 2008 set the maximum annual household income for consumers to be eligible for the electricity social tariff (electricity being considered a basic necessity) to the same income level used to determine eligibility for national universal health insurance. In its opinion dated 17 July 2008, CRE recommended that the law extend the right of incumbent suppliers to apply this special tariff to all electricity suppliers to guarantee equal access to national customers, as stipulated in the 26 June 2003 directive.

The decree setting the special solidarity tariff for natural gas supply was published on 14 August 2008. Several recommendations suggested by CRE in its 27 March 2008 opinion of the draft decree were followed.

The forecast costs resulting from this tariff and the unit contribution to finance them were set for 2008 and 2009 in an order issued on 17 December 2008, based on the CRE proposal of 13 November 2008. CRE posted the half-year contribution statement form on its web site, making it available to all natural gas suppliers.

2.3. TaRTAM, a temporary measure that produced supplier lack of compensation, extended to 2010

The transitional regulated tariff for balancing markets (TaRTAM) was extended to 30 June 2010 by the Act to Modernize the Economy of 4 August 2008. But the mechanism used to compensate suppliers bearing TaRTAM-related costs caused cash flow problems for these suppliers that are in conflict with the compensation principle.

For 2008, the unit contribution was set by an order issued on 10 April 2008, in compliance with the CRE proposal of 13 March 2008. The proposal was established based on information available to CRE at the time, in particular an estimate of the cap on procurement costs taken into account in the compensation mechanism, based on electricity wholesale prices valid at the time. Since then, prices have risen considerably, entailing a marked rise in procurement costs for electricity suppliers. Furthermore, an order dated 22 December 2008 changed the calculation basis for the cap on supplier procurement costs. Consequently, the unit contribution set for 2008 was clearly too low to compensate total quarterly costs estimated by suppliers. For the entire year of 2008, about 20% of these costs, representing €120 million, had still not been compensated at the end of January 2009.

On 9 October 2008, CRE submitted its proposal on the forecast total costs and the unit contribution for 2009 to the French Minister for Energy.

CRE estimated the cost prediction for 2009 at €1,214 million. Since the 2009 Contribution to the Public Electricity Service could not finance these costs, the unit contribution payable by EDF and CNR on nuclear and hydroelectric power generation must cover them completely. The unit contribution is €2.57/MWh. The cap on this contribution, set to €1.30/MWh, was raised to €3/MWh by the 2008 budget act amendment of 30 December 2008 INSET 12.

2.4. CRE encourages a consultation process to improve retail market functioning

Consultation is still necessary to accompany the change towards open-market competition. On 17 July 2008, CRE deliberated on work conducted throughout the past year by the Customer Working Group, the Electricity Working Group and the Gas Working Group, created as part of the consultation process directed by CRE.

One year after the market opened to all customers on 1 July 2007, feedback did not reveal any major dysfunction in relations between DSOs and suppliers. The continuous improvement process and regulation modifications introduced any necessary changes in procedures.

A series of studies was initiated in September 2008 in the gas and electricity working groups, covering the following:

- the possibility for electricity suppliers to automatically provide their customers with delivery point numbers, which is already the case for gas supply;

- taking into account self-reported meter readings for new connections where the power supply was maintained (electricity);
- making the "supplier-initiated termination" procedure the same for both gas and electricity;
- extending to major customers those measures initially defined for gas customers with six-month readings and no supplier;
- finalising the supplier failure procedure, given the decree issued on 19 April 2008 relative to "last-resort" supply of natural gas to non-household customers with public service obligations.

With regards to the supplier/customer relationship, examined in the Customer Working Group, a growing number of subscription disputes during electricity supplier switching was identified, although the proportion was still quite small (less than 1% of household sites with market-based contracts). This type of dispute is very rare in the gas sector.

In light of feedback requested by CRE, the corresponding procedure was changed to specify its scope, describe in greater detail the customer/supplier relationship, simplify procedures for the customer and the initial supplier and set down processing deadlines. More work is still necessary to define the financial arrangements to be applied between the customer and the disputed supplier during the settlement period.

The Act to Modernise the Economy of 4 August 2008 changed the consumers' rights code, making it mandatory to sign a supply contract either physically or electronically. This measure resulted in a

For electricity, the customer databases of ERDF and EDF (the incumbent supplier) will be separated at the end of 2009 for professional customers with regulated tariffs.

INSET 15

FEEDBACK AND IMPROVEMENT OF RETAIL MARKET FUNCTIONING THROUGHOUT EUROPE: WORK CONDUCTED BY THE ERGEG CUSTOMER FOCUS GROUP

- On 23 September 2008, within the context of work conducted for ERGEG, CRE organised a seminar on supplier switching. About 60 participants (European associations representing customers, suppliers ,DSOs, representatives of the European Commission and national energy regulators) came together to exchange accounts of their experience and discuss ERGEG recommendations.
- ERGEG recalled the conditions applicable to opening the market, with focus on providing customer service *(ERGEG Status Review on Supplier Switching Process,* 19 September 2008), implying: a simple change process (the customer only needs to contact the new supplier), performed quickly (no more than one month to change supplier and close the account with the previous supplier) and free of charge (suppliers cannot retain their customers).
- Another purpose of the seminar was to prepare the kick-off meeting for the Citizens' Energy Forum. The first meeting of the Forum, bringing together governments, consumer associations, trade associations and national energy regulators, was organised by the European Commission and was held in London on 27 and 28 October 2008. CRE participated as national regulator and chaired the ERGEG Customer Focus Group.
- The Forum defined a common work programme for 2009 for all participants. ERGEG has therefore set out to work on the question of vulnerable customers, processing complaints, setting up market monitoring indicators and other instruments useful in controlling customer consumption (smart metering systems).
- In London, ERGEG unveiled its report on transposing European legislation on energy-related consumer rights issues *(ERGEG Transposition of Consumer Rights Report,* 13 October 2008).
- This report will serve to set priorities for action taken by CRE in France. While ERGEG considers that consumer rights have been adequately transposed to French legislation, there is still room for improvement. For example, cost-free supplier switching is not guaranteed in France. Consumers are not informed beforehand when regulated retail tariffs change. Along the same lines, it remains difficult for consumers to compare offers between different suppliers. CRE and the French National Energy Mediator are working on setting up a tool for this purpose on the Internet.

declining number of contested subscriptions when switching suppliers, a trend observed already in November 2008.

Other issues dealt with by the Customer Working Group included:
- monitoring DSO quality-of-service indicators from the customer viewpoint (supplier switching, connection to the grid, termination, etc.);
- presentation of statistics on customer questions and complaints received via the *énergie-info* customer service desk.

The French National Energy Mediator was active in the consultation process set up by CRE and took part in the Customer Working Group. It will be presenting a documented analysis of its recommendations on market operating rules, which will serve to identify any necessary changes.

Follow-up on issues related to information systems remains a priority for CRE.

For gas, between May and July 2008, CRE ordered an audit on the information system used to manage gas transportation and the associated customer processes at GrDF (the Omega system). In deliberations held on 25 September 2008, it issued recommendations and the corresponding plan of action:
- reinforce communication and consultation with suppliers to give them a clearer view of upcoming changes to the Omega information system;
- improve administration of the Omega information system to limit the number of releases and improve fault management;
- develop customer service awareness at GrDF;
- eliminate overrides granting the incumbent supplier, GDF Suez, access to the DSO's information system.

With regards to the last point, progress was observed concerning the following:
- since 23 September 2008, GDF Suez can no longer use the override procedure to submit to GrDF certain applications for connections or terminations. Like the other suppliers, all applications must now go through Omega;
- GrDF and GDF Suez have agreed on an agenda for eliminating direct uploads of metering data through the DSO's legacy applications, as long as GrDF complies with the quality-of-service indicators defined by GDF Suez.

For electricity, the customer databases of ERDF and EDF (the incumbent supplier) will be separated at the end of 2009 for professional customers with regulated tariffs. This deadline has been set to the end of 2010 for multi-site customers and local government administrations. For certain specific customers, it will not be possible to separate the databases for several more years. Separating customer management data and metering data management in the legacy system has nonetheless been planned out in a programme designed to integrate all contract data in the new EDF information systems five years from now. A decisive milestone has been set for the end of 2010, when roughly 10 million customers will be managed through new information systems.

The Act to Modernise the Economy of 4 August 2008 changed the code on consumers' rights, making it mandatory to sign a supply contract, either physically or electronically.

3. With the *énergie-info* customer service desk, CRE and the French National Energy Mediator aim to provide customers with a better information service

3.1. Customers still do not have enough information

Two annual surveys were conducted to measure the customer's perception of opening the market to competition.

In November and December 2008, CRE issued an update on consumer barometers: the second one for household customers and the fourth for non-household customers. The surveys were performed by the LH2 Institute. They cover two markets at different stages of maturity.

Two samplings of 1,500 contacts, homes for household customers, private business and state-owned companies for non-household customers, were questioned over the phone.

While 85% of professionals are aware of their right to change electricity suppliers, only 39% of the individuals surveyed at home were aware of this possibility.

Seventy-seven per cent of professionals stated they did not know what procedures to follow to switch supplier, 61% knew that it was free of charge and 45% thought that the procedure would be complicated. As for household consumers, 82% of households surveyed did not know how to switch supplier, only 52% knew that it was free of charge and the procedure seemed complicated to 39% (compared to 44% in 2007).

3.2. *Énergie-info:* a single source for customer information

The *énergie-info* service system is based on a website and a customer helpline. The helpline consists of an out-sourced call centre that provides answers to simple questions on the opening up of the market to competition and an internal specialist group that deals with more complex questions.

The customer service system provides information on practical aspects, suppliers and their offers and customers' rights in the energy sector.

The www.energie-info.fr web site was created on 1 July 2007, when the gas and electricity markets were opened, and since that date has continuously updated the content to keep customers informed. It was developed by CRE and the French National Energy Mediator, in cooperation with the French directorate on energy and climate issues (DGEC) and the French directorate for competition, customer rights and protection against fraud (DGCCRF).

Since September 2008, the space dedicated to household customers has been updated with information on energy-saving ideas, in partnership with the French environment and energy management agency (ADEME). A search engine that locates suppliers by entering the customer's postcode was developed with help from suppliers and DSOs. Using this application, household and professional customers can locate the electricity and natural gas suppliers registered to serve their community and that correspond to their consumption profile. The site also provides contact information for distribution system operators.

Suppliers registered in the search engine are obliged to comply with rules that guarantee the authenticity of information made available to customers. Registration is voluntary and does not confer any legal rights. At the end of December 2008, over 200 incumbent and alternative suppliers had registered. After just a few months of operation, the search engine has become the most frequently consulted page on the web site.

Professional customers [1] also have their own dedicated space since September 2008: www.energie-info.fr/pro. It features information that previously appeared on the CRE web site, as well as new content.

In the second half of 2008, the number of visitors to the www.energie-info.fr web site rose considerably, reaching nearly 40,000 per month. At the request of the French National Energy Mediator, as part of the regulatory obligations stipulated in the order relative to electricity and gas invoices of 2 July 2007, the address of the *énergie-info* web site must gradually appear on the invoices of all 40 million electricity and natural gas customers, along with the following statement: "You can find everything you need to know on procedures, your rights and energy saving at www.energie-info.fr, the public authority information web site" **FIGURE 16.**

The *énergie-info* customer service desk provided help to 241,000 customers in the second half of 2008:

- 65% of these customers consulted the list of electricity and natural gas suppliers on the interactive voice server (available 24 hours a day by calling 0 810 112 212, for the cost of a local call on a landline);
- 35% of the customers obtained a personalised response to their questions from an *énergie-info* counsellor (reply by phone, mail or e-mail, depending on the customer's choice);

In the second half of 2008, the number of visitors to the *énergie-info* web site rose considerably, reaching nearly 40,000 per month.

(1) Mainly independent business customers who subscribe for electrical power not exceeding 36 kVA or who consume less than 30,000 kWh of natural gas per year.

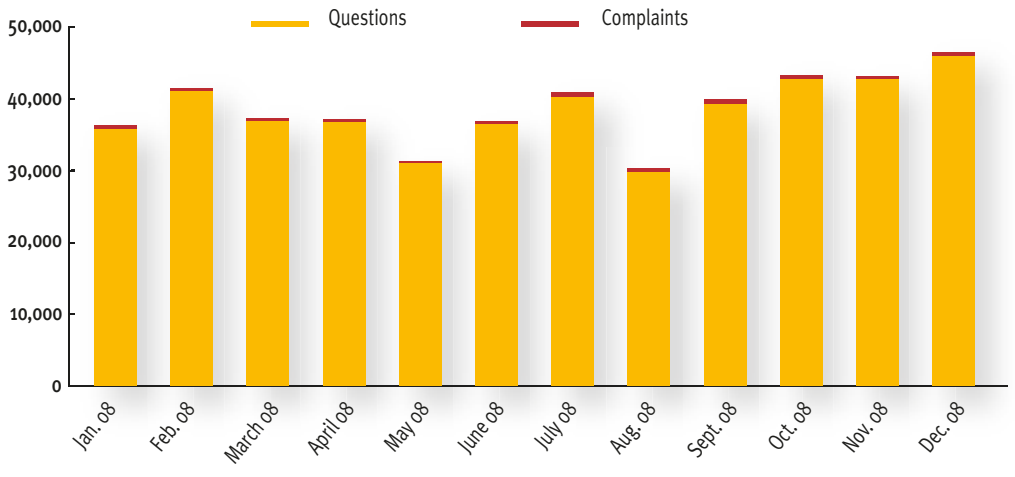
- in the last half of 2008, *énergie-info* handled 3,512 questions on complex issues, representing 4.3% of the "personalised" contacts. Complex questions, especially those involving disputes, are followed up through an individual case number. *Énergie-info* counsellors analyse the situation of each customer and inform the person of the procedures to be followed to solve the dispute, while also providing information on customer rights.

In compliance with the Law of 12 April 2000 relative to citizen relations with public administrations, customers are directed to the competent authorities to handle their dispute: depending on the case, this may be the DGCCRF (for non-compliance with the Consumer Rights Code, breach of contract by a supplier, etc.) or the French National Energy Mediator (disputes between a low-consumption customer and the supplier concerning performance of the supply contract).

In the second half of 2008, 2,372 subscription disputes were recorded by the *énergie-info* service. The other cases recorded involved energy invoices (especially those based on estimated volumes instead of actual meter readings), the quality of customer service, problems encountered while connecting to the grid or network, or when switching on the power source or terminating a contract.

Since 1 July 2007, over 660,000 customer contacts have been processed by the *énergie-info* service.

FIGURE 16
CUSTOMER CONTACTS RECEIVED THROUGH THE *ÉNERGIE-INFO* SERVICE DESK



Source: CRE

Appendices

1. Summary of main CRE deliberations

CRE deliberations may be viewed at the www.cre.fr web site.

1.1. From June to August 2008

Opinion of 5 June 2008 relative to the bids selected by the French Deputy Minister for Industry concerning the call to tender for facilities to generate electricity from biomass energy

In application of Article 13 of Decree No. 2002-1434 of 4 December 2002, the French Deputy Minister for Industry submitted his choices to CRE for its opinion on 29 November 2007 concerning the call to tender for facilities to generate electricity from biomass energy.
Subject to postponements specified in the bid specification, until 1 January 2030, the selected candidates will receive payment for the electricity generated at the price proposed and shall also be subject to any penalties for failure to honour contract commitments. Related costs in excess of the wholesale market price shall be financed by the Contribution to the Electricity Public Service (CSPE).
Fifty-six offers were submitted before the 9 August 2007 deadline. The bid assessment was submitted to the minister in CRE's deliberation of 30 January 2008. The minister's choice corresponded to the ranking resulting from the commission's assessment. The average weighted retail price of the electricity generated was set at €128.10/MWh. CRE issued a favourable opinion on the minister's choice of projects.
Twenty-two projects are on the list of retained offers, published by the minister on 12 June 2008, at the end of the tendering process.

Decision of 5 June 2008 relative to approval of the report on management and use of electricity interconnections in 2007

On 5 June 2008, CRE published its second report on the management and use of electricity interconnections in 2007.
In this report, CRE assesses the current methods used to manage congestion at French borders.
It demonstrates that the interconnections are not currently used to maximum capacity.
The CRE report emphasises three projects currently being developed by European network operators and by electricity trading platforms to improve interconnection use:

- in the Centre-West region (Benelux, Germany and France), the creation of a single auction platform to allocate interconnection capacity over the long term;
- in the same region, coupling of "flow-based" power exchanges to make optimal use of the grid for day-ahead exchanges;
- in the "France – United Kingdom – Ireland" region, reciprocal balancing exchanges have been set up on the France-England interconnection.

CRE considers that completion of these projects will lay the foundations for a new congestion management system for interconnections across Europe and will give concrete expression to the work conducted as part of the regional electricity initiatives launched in 2006 by the European regulators group.

Tariff proposal of 25 June 2008 for use of the public natural gas distribution network of the municipality of Schweighouse granted to ANTARGAZ

On 25 June 2008, CRE proposed a tariff for use of the public natural gas distribution network of the municipality of Schweighouse, to take effect on 1 September 2008. It is the first distribution concession that is not subject to tariff equalisation.
Following a call to tender launched in 2006 for natural gas distribution in the area of the five Haut-Rhin municipalities, Antargaz, the only candidate, signed a concession contract on 8 March 2007 for the construction of a network and service for the municipality of Schweighouse.
The combined provisions of Section III of amended Article 7 and Article 25-1 of Law No. 2003-8 of 3 January 2003, relative to gas and electricity markets and public service obligations in the energy sector, establish the principle of tariff non-equalisation for new concessions for natural gas distribution granted after markets have opened up to competition. The Order of 2 June 2008 approving tariffs proposed by CRE on 28 February 2008 for the use of public natural gas distribution networks sets out the applicable pricing rules.
These provisions implement a single tariff structure for all natural gas distribution networks. The provisions must facilitate access to networks and the flow of data between DSOs and suppliers. For local authorities, they will also simplify the analysis of DSO bids on calls to tender.
The tariff scale proposed by CRE for Antargaz requires a multiplication factor of 2.45 to be applied to GrDF's tariff scale. The Order of 20 August 2008 approved the CRE proposal.

Tariff proposal of 10 July 2008 for use of natural gas transmission networks

In accordance with the provisions of Article 7 of the Law of 3 January 2003, CRE proposed new tariffs for the use of natural gas transmission networks to take effect on 1 January 2009.
The consequences of the tariff proposal will include:

1. a reduction in the number of balancing zones, thus simplifying the interface between the GRTgaz and TIGF networks;
2. a new scheme for return on investment and incentive for investment in gas transmission networks;
3. long-term transparency in relation to tariffs for TSOs and network users. For GRTgaz, the tariff period is raised to four years; for TIGF, the tariff period is set to two years.

For both operators, the principles of return on investment and investment incentives have been set for four years and a regulatory system to provide quality-of-service incentives has been implemented.
For GRTgaz, the authorised revenue increase in 2009 expressed in current euros amounts to 8% compared to the current tariff, which means an average increase in unit price of around 6%.
For TIGF, the authorised revenue increase over 2009-2010 amounts to 20% compared to the current tariff which translates to an average increase in unit price of around 10% in current euros.
These increases are explained by new investments that the TSOs will make to improve security of supply, simplify the interface between GRTgaz and TIGF to improve access to the transmission network and resolve internal congestion on the network.
CRE considers that additional changes in transmission structure must be planned to simplify the transportation offer and take into account the development of interconnections with the Iberian Peninsula and the possible commissioning of new LNG terminals.

Deliberation of 17 July 2008 on the consultation process within the Consumer Working Group, Electricity Working Group and Gas Working Group relative to retail electricity and natural gas retail market operation

Since May 2005 CRE has implemented a consultation process bringing together all stakeholders involved in opening the retail electricity and gas retail markets: consumers, installers, suppliers, system operators and public authorities are represented. This consultation process involves consumer, electricity and gas working groups that have been in existence since 1 July 2007. In a document released on 27 September 2007, CRE requested that these working groups provide feedback on the procedures and measures that have been implemented.
In particular, it asked the Consumer Working Group to take action to improve consumer information and

protection, to ensure consultation on a proposed experiment by system operator ERDF on smart metering systems for low-voltage users (≤ 36 kVA) and to organise discussions on advances in gas metering systems. The priority for the electricity and gas working groups was monitoring deployment of DSO information systems for smoother exchanges between DSOs and suppliers.
A year after 1 July 2007, feedback brought no major problem to light. The rules controlling relations between DSOs and suppliers are understood and applied by all stakeholders and the proposed changes are more the result of a continual improvement process than a corrective measure.
In its deliberation, CRE addresses the current situation on requested projects in a document released on 27 September 2007 as well as other work conducted since that time; it makes known its decisions and sets the direction for consultation groups beginning in the third quarter of 2008.
CRE notes that the procedures prepared within CRE's consultation process are approved by customers as well as system operators and constitute, as stated by CRE's Standing Committee for Dispute Settlement and Sanctions (CoRDiS) in its decision of 26 September 2007, "practices which are not deprived from any legal value".

Opinion of 11 August 2008 on the proposed order relative to the retail price of electricity

The government proposed an increase in regulated tariffs differentiated by tariff category: +2% for blue tariffs, +6% for yellow and +8% for green A tariffs. CRE notes with satisfaction the fact that the government proposes a change in regulated tariffs differentiated between blue, yellow and green A, which apply to household customers and small businesses, small- and medium-sized enterprises and industries, and large corporations, respectively.
The analysis conducted by CRE shows that the tariff hikes should be bigger than those proposed.
It considers that the planned rises nevertheless constitute an important first step on the path to reaching the level of covering costs required by law.
As a result, CRE gave a favourable opinion on the proposed increases.
CRE emphasises that tariff structure and level must be reassessed when the next tariff for use of the public electricity grid goes into effect so that tariffs reflect costs, as required by law.
Finally, since disposal sales tariffs were implemented so local distribution companies could serve their customers using regulated retail tariffs, CRE would like them to change rapidly to take into account changes in regulated retail tariffs that have occurred since their evaluation.

1.2. From September to December 2008

Deliberation of 18 September 2008 relative to the creation of a consultation process on rules for transportation on gas transmission networks

Over the past several years, the two French TSOs, GRTgaz and TIGF, at CRE's request or on their own initiative, have conducted public consultations on transportation on their gas transmission networks.
Today there are several working groups, consultation processes and discussions dealing with different issues. Within this context, several users of the transmission network asked CRE to create a formal consultation process on rules for transportation on gas transmission networks. CRE considers that rules for transportation on gas transmission networks may change substantially on several points.
The public consultations set up by GRTgaz and TIGF have improved transparency and the level of information for gas transmission network users. Nevertheless, it is essential for the different issues to be handled consistently and that the consultation processes conducted separately by the TSOs do not lead to unjustified differences in transportation rules between the two networks.
To meet these objectives, a consultation process relative to rules for transportation on gas transmission networks will be set up.
The Gas Working Group will maintain its authority, especially concerning questions relative to distribution and interfaces between distribution and transmission networks. The public consultation on transmission has authority on matters relative to transmission and interfaces with gas infrastructure other than distribution networks.

GRTgaz and TIGF will prepare and organise the first meeting of the plenary committee by 31 October 2008 at the latest.

Deliberation of 25 September 2008 on the information system for managing transportation and customer processing for Gaz Réseau Distribution France (GrDF) and separating the information systems of GDF Suez and GrDF

One of the consequences of complete opening of the natural gas market is the significant increase in the volume of data to be managed and shared by information systems of DSOs and suppliers.

To meet this challenge, GrDF has opted to replace its current information system for managing transportation and associated customer processes, called "Sygard", implemented for the opening of the market to non-household customers on 1 July 2004, with a new information system called "Omega".
Given the important role of DSO information systems in keeping the natural gas market functioning correctly and certain persistent problems encountered by suppliers, CRE wished to ensure that development and operation of the Omega information system were well managed. CRE therefore requested an external audit, conducted between 13 May and 31 July 2008, which focussed on technical and functional features of Omega and the system's adaptability.
The audit also covered overriding access conditions for GDF Suez, a supplier, to GrDF's legacy applications and the schedule for phasing out these conditions.
The audit conclusions were positive regarding GrDF's ability to develop and adapt Omega. In contrast, Omega operation, subject to several recurring faults, was judged unsatisfactory for suppliers and penalizes them in their work. A clarification on the organisation set up by GrDF to administer Omega, as well as greater cooperation between GrDF and suppliers in decisions concerning Omega, will improve GrDF's efficiency and responsiveness, leading to better system operation.
Finally, regarding equal access of suppliers to GrDF's information system, the audit highlights the need to closely administer elimination of access overrides for GDF Suez so that they are no longer effective some time in 2009.

CRE made requests and recommendations in four areas:
- improving communication and consultation with suppliers;
- improving administration of Omega;
- development of customer service awareness;
- elimination of GDF Suez's access overrides to GrDF's information system.

Deliberation of 9 October 2008 on the interim execution report for the 2008 GRTgaz investment plan

In accordance with CRE deliberation of 12 December 2007, GRTgaz presented the current state of its investment plan for the first half of 2008 to the Commission.
During review of the execution report presented by GRTgaz, CRE observed an increase of €10 million in the provisional amount for investment expenditure in 2008, now set at €595 million. The difference was explained mainly by a rise in project costs and an increase in the number of studies for connecting combined-cycle gas turbines.
Major projects have advanced according to the provisional programme approved by CRE in its deliberation of 12 December 2007. The differences observed in GRTgaz's 2008 investment plan do not justify modifying the plan approved by CRE on 12 December 2007.
In mid-2009, GRTgaz will submit an execution report on the 2008 investment plan to CRE.

Deliberation of 9 October 2008 on the interim execution report for the 2008 TIGF investment plan

In accordance with CRE's deliberation of 12 December 2007, TIGF presented the current state of its investment plan for the first half of 2008 to the Commission.
During review of the execution report presented by TIGF, CRE observed a decrease of €4 million in the provisional amount for investment expenditure in 2008, now set at €187 million.
The difference is explained mainly by postponement of work from 2008 to 2009. The differences observed with respect to TIGF's 2008 investment plan do not justify modifying the plan approved by CRE on 12 December 2007.

In mid-2009, TIGF will submit an execution report on the 2008 investment plan to CRE.

Proposal of 30 October 2008 relative to tariffs for use of public electricity transmission and distribution grids

On 30 October 2008, CRE sent its proposal for new tariffs for use of the public electricity transmission and distribution grids to the French economy and energy ministers.
In accordance with the provisions of Article 4 of the Law of 10 February 2000, CRE proposed new tariffs for use of the public electricity grids to the French economy and energy ministers.
To prepare this proposal, CRE held two public consultations:
- the first, in February 2008, on the pricing principles under consideration;
- the second, in August 2008, on guidelines for tariff levels and assessment of the regulatory framework and the average tariff scale.

Proposition of 30 October 2008 relative to complementary services provided by monopolies operating public electricity grids

On 30 October 2008, in accordance with the provisions of Section III of Article 4 of the Law of 10 February 2000, CRE sent the French economy and energy ministers a reasoned proposal of tariffs for complementary services provided by monopolies operating public electricity transmission and distribution grids.
This proposal follows an initial proposal, dated 15 May 2007 and approved by the ministerial decision of 19 July 2007, which was limited to complementary services necessary to open the household customer market to competition under proper conditions.
The second is concomitant with the other proposal relating to tariffs for the use of public electricity grids (TURPE), since these two tariffs are closely related.
In accordance with Article 4 of the amended Law of 10 February 2000, CRE formulated its proposal after consulting with stakeholders, in particular through a public consultation conducted between 18 September 2008 and 8 October 2008.
CRE recalls that services provided by public system operators are divided into four categories:
- basic services covered by the tariff for using the public electricity grid, the content of which is determined by concession specifications or regulations applying to state-run services applicable to public system operators;
- complementary services provided by monopolies operating public grids, covered in this proposal;
- complementary services provided by public system operators in a competitive context. Prices for these services are set freely by public service operators;
- the services for connection to the system which result from the provisions of Articles 4, 14 and 18 of amended Law No. 2000-108 of 10 February 2000.

CRE also indicated that public service operators must specify in their publications the category to which each service belongs.

Opinion on a draft order defining conditions for the purchase of electricity generated by mechanical wind-power facilities

On 30 September 2008, CRE was asked to review a draft order from the French Minister for Ecology, Energy, Sustainable Development and Town and Country Planning and the French Minister for Economy, Industry and Employment that defines conditions for the purchase of electricity generated by mechanical wind-power facilities.
This proposal follows cancellation of the Order of 10 July 2006 by the French Council of State on 6 August 2008 defining conditions for the purchase of electricity generated by mechanical wind-power facilities such as those described in Section 2 of Article 2 of Decree No. 2000-1196 of 6 December 2000.
The purpose of CRE's opinion is to assess the purchase obligation tariff level proposed for wind power and not to judge the relevance of using wind power to achieve targets set by EU directives and national law.
The proposed order corresponds on all points to the Order of 10 July 2006. The tariff is unchanged, including its indexing method (indexed annually).
The tariffs proposed for facilities in mainland France and French territorial waters are greater than the total generation costs saved by the electricity system over the long term, increased by the contribution of the wind sector to the objectives of French energy

policy as evaluated by CRE. As a result, they may breach provisions of Article 10 of Law No. 2000-108 of 10 February 2000, stipulated in the Decree of 10 May 2001.
The surplus generating costs for launching a 17 GW wind farm in the French electricity system by 2015 are estimated between €1.7 and €2.1 billion/year, in comparison with a reference situation where electricity is generated using conventional means. This surplus is out of proportion with the benefits resulting from the contribution of wind power to the objectives defined by the Law of 10 February 2000, assessed at €450 million/year based on conservative assumptions. In addition to this surplus cost for generation, other costs incurred by introducing wind power on the electricity system must also be added. Beyond 5 to 10 GW of installed power, wind power leads to extra costs in terms of balancing and margins.
Extra costs due to wind power result in a cost per tonne of CO_2 avoided between €230 and €280 and up to €490 for off-shore wind farms. In comparison, the budgeted cost of public subsidising is estimated at €2 per tonne of CO_2 saved for thermal insulation of opaque walls, €31 for installing condensing boilers and €97 for installing geothermal heat pumps.
To conclude, CRE has given an unfavourable opinion on the draft order defining conditions for the purchase of electricity generated by mechanical windpower facilities

Deliberation of 26 November 2008 regarding changes to the balancing rules on the GRTgaz gas transmission network

Balancing the transmission network is a core obligation assigned to the TSOs GRTgaz and TIGF. When insufficient or excess quantities of gas are injected into the system by transmission network users, physical balance on the transmission network is lost. To limit the extent of imbalance to be offset by the TSOs, each shipper must maintain an overall balance in each of the balancing zones where it has booked capacity.
Within the framework of the new natural gas transmission network tariff in force on 1 January 2009 and in accordance with CRE's deliberation of 7 December 2006, GRTgaz submitted a proposal to change the balancing rules applicable to its gas transmission network for CRE's approval on 31 October 2008. The proposal calls for:
- adjusting the distribution of tolerances to take into account restrictions related to shipper portfolio size and the balancing zone;
- implementing an arrangement to facilitate removal of the mechanism for sharing shipper imbalances between balancing zones. This arrangement would involve invoicing each shipper and the South zone at market price without penalty for the daily imbalance observed above the tolerance and under certain conditions.

In addition to the consultation process carried out by GRTgaz, CRE conferred with shippers on GRTgaz's proposal between 7 and 14 November 2008. The participants appeared largely favourable to GRTgaz's two proposals.
With its final deliberation, CRE approved the distribution of tolerances proposed by GRTgaz to come into force on 1 January 2009, as well as the temporary arrangement to facilitate removal of the mechanism for sharing imbalances between balancing zones, which will apply for a period of 12 months from 1 January 2009.
CRE also asked GRTgaz to provide feedback for these changes during the second half of 2009 and to pursue these efforts in 2009 through the consultation process concerning transportation on gas transmission networks.

Proposals of 13 November 2008 relative to costs related to the natural gas special solidarity tariff and the unit contribution for 2008 and 2009

The natural gas special solidarity tariff became effective on 15 August 2008 by Decree No. 2008-778 of 13 August 2008. To implement the mechanism to compensate costs borne by natural gas suppliers related to the application of the natural gas solidarity tariff in accordance with Decree No. 2008-779 of 13 August 2008, CRE proposed to the French Minister for Energy, for both 2008 and 2009, the forecast costs related to the natural gas solidarity tariff and the unit contribution payable by all natural gas suppliers to cover these costs.

The forecast costs borne by suppliers resulting from supplying gas at solidarity tariff prices for a given year cover the reductions and payments that household customers receive with the solidarity tariff, as well as the resulting administrative costs incurred by suppliers, the health insurance system and the public financial institution *Caisse des dépôts et consignations.*

CRE established the cost forecasts based on a scenario featuring a growing number of solidarity tariff beneficiaries for 2008 and 2009 and forecast data from suppliers. CRE noted that the additional forecast administrative costs are high in relation to the costs in question. It reserved the option of auditing the actual costs once they have been reported by suppliers.

Twenty-eight gas suppliers are expected to bear the costs related to the solidarity tariff in 2008, estimated at €12.8 million, and 29 suppliers in 2009, for costs that may amount to €44.1 million.

As for the unit contribution paid by all natural gas suppliers, the decree provides that the calculation base for a given year is equal to the number of kWh invoiced by suppliers to all final customers for the year under consideration.

The forecast contribution bases are 484 TWh for 2008 and 492 TWh for 2009, based on data supplied by public network operators and public administrations. A unit contribution of €0.026/MWh in 2008 and €0.089/MWh in 2009 is necessary to finance the forecast cost assessments related to the solidarity tariff.

Deliberation on 3 December 2008 relative to changes to the rules for transferring natural gas transmission capacity on the secondary market

The European Regulators' Group for Electricity and Gas (ERGEG) stressed the importance of developing gas transmission capacity on the secondary market as a way of optimising use of the transmission network. Sharing this viewpoint, CRE wished to define the rules for transferring capacity in the natural gas transmission networks on the secondary market. To reach its decision, CRE consulted users of the gas transmission networks between 10 and 27 October 2008 and organised a round table with them on 27 November. It also conducted hearings with one of the TSOs, GRTgaz.

At present, liquidity on the secondary market for gas-transmission capacity in France remains very limited. For example, between January and September 2008, transferred capacity represented only 2% of primary capacity and 71% of capacity traded was exchanged exclusively between four key players.

In this respect, GRTgaz's proposal supporting a platform to match capacity supply and demand would promote greater liquidity and transparency on the secondary market for transmission capacity. In addition, GRTgaz's proposal to share the platform with Fluxys (a Belgian TSO) and open it to all European TSOs would contribute to building the European gas market and reduce costs for users.

In its final deliberation of 3 December 2008 and in accordance with the pricing rules in effect on 1 January 2009, CRE stated that, on an experimental basis, GRTgaz may propose services related to the Capsquare platform for exchanging gas transmission capacity. The service for registering transmission capacity exchange notifications, an essential feature of the regulated gas transmission offer, must remain free of charge and offer the same quality as that offered by the GRTgaz transmission capacity exchange customer portal, ECT. The conditions for access to the registration service for transmission capacity exchange notifications, submitted to CRE for prior approval, must be defined in the transportation contract.

CRE also extended the rules for coordinated capacity transfer at the interface between the TIGF and GRTgaz networks (output from one TSO's network and input into the other TSO's network) to the secondary market. CRE asked that, in their operating rules to take effect on 1 January 2009, GRTgaz and TIGF stipulate that any transfer of capacity at the GRTgaz/TIGF interface be notified to both TSOs and concern the same purchaser and the same capacity (level and duration) on both sides of the interface. This provision applies to both the transfer of usage rights and full transfers.

Deliberation on 17 December 2008 relative to the new equation used to calculate changes in regulated retail tariffs for natural gas sold by GDF Suez

Pursuant to Article 7 of the Law of 3 January 2003, CRE gives an opinion on regulated retail tariffs for natural gas sold by GDF Suez for public distribution and subscription tariffs.
On 21 July 2008, GDF Suez submitted to CRE a new equation for estimating procurement costs to be taken into account in regulated retail tariffs, thereby replacing the previous equation. This equation is to be applied for the years 2008, 2009 and 2010.
On 17 December 2008, CRE published its opinion.
It considers that this new equation provides a correct estimate of GDF Suez's natural gas supply costs on the French market and states, given the new economic context and the declining price trend for oil products, that CRE will conduct a new audit of this equation in a year.

Deliberation on 18 December 2008 relative to the fourth annual report on system operators' compliance with codes of good conduct and their independence

In its fourth annual report on system operators' compliance with codes of good conduct and their independence, CRE acknowledges that these codes have been successfully implemented, contributing to the successful transition towards an open market by ensuring transparent and non-discriminatory access to the transmission and distribution networks.
However, regarding operator independence, CRE recommends that calling on the services of the integrated company (for financial services, human resources and accounting) should be the exception.
CRE will continue to keep a close watch on the dividend and borrowing policies of parent companies to ensure that they do not compete with investments planned for developing networks and improving quality of service.
Finally, in its report CRE stresses that communication regarding system operators' obligations is their sole responsibility and must be improved so that operators are better known to the public at large.

2. Calendar for European Events

2.1. Calendar for the French Presidency

"INTERNAL ENERGY MARKET" LEGISLATIVE PACKAGE

June 2008	
6 June 2008	Council on Transportation, Telecommunications and Energy (TTE)
18 June 2008	Plenary session of the European Parliament: vote on first reading of the Electricity Directive, Electricity Regulations and ACER Regulations
July 2008	
9 July 2008	Plenary session of the European Parliament: vote on first reading of the Gas Directive and Gas Regulations
October 2008	
10 October 2008	Council on Transportation, Telecommunications and Energy (TTE)
15-16 October 2008	European Council
December 2008	
8 December 2008	Council on Transportation, Telecommunications and Energy (TTE)
11-12 December 2008	European Council

ENERGY AND CLIMATE LEGISLATIVE PACKAGE

September 2008	
11 September 2008	Parliamentary Commission's Committee meeting on Industry, Research and Energy (ITRE): adoption of the Renewable Energy Report (ENR)
October 2008	
6 October 2008	Parliamentary Commission's Committee meeting on the Environment: adoption of reports on the emissions trading scheme, effort sharing and geological storage of CO_2
10 October 2008	Council on Transportation, Telecommunications and Energy (TTE)
15-16 October, 2008	European Council
December 2008	
5 December 2008	Environmental Council
8 December 2008	Council on Transportation, Telecommunications and Energy (TTE)
11-12 December 2008	European Council
17 December 2008	Plenary session of the European Parliament: vote on first reading of the Energy and Climate Package

2.2. CEER/ERGEG and Forum Agenda

CEER & ERGEG General Assembly	
3 June 2008	43rd CEER General Assembly
8 July 2008	44th CEER General Assembly
9-10 September 2008	45th CEER and ERGEG General Assembly
7 October 2008	46th CEER General Assembly
19 November 2008	47th CEER General Assembly
9-10 December 2008	48th CEER and ERGEG General Assembly

Forums	
16 October 2008	Gas Forum, Ljubljana: Energy Community Gas Markets
27-28 October 2008	Energy Forum, London: Citizens' Energy Forum
6-7 November 2008	Madrid Forum: UE Gas Markets
24-25 November 2008	Florence Forum: UE Electricity Markets
3 December 2008	Athens Forum: Energy Community Electricity Markets
19-21 October 2009	World Forum on Energy Regulation, Athens

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4. Glossary

Access protocol: internal agreement, equivalent to a grid access contract, governing access to the EDF-Generation or EDF-Distribution transmission grid within EDF itself.

Access to distribution grid contract: contract signed between an electricity distribution system operator and a user of this grid, which defines the legal, technical and economic conditions for access and use of the grid.

Access to transmission grid contract: contract signed between the electricity transmission system operator and a user (producer or consumer) of this grid, which defines the legal, technical and economic conditions for access and use of the grid.

Account unbundling: obligation requiring integrated companies to keep separate balance sheets and income statements for production (electricity), transmission, distribution (electricity and gas), storage (gas) and other activities. These accounts, as well as the principles governing their preparation (allocation rules, account scope, financial relationship between activities) appear in the attachments to the operators' annual accounts.

Alternative supplier: suppliers that are not incumbent suppliers are considered as alternative.

Avoided costs: when an operator is obliged to buy a quantity of electricity as part of feed-in obligations imposed by public authorities, this quantity takes the place of energy which it would have been obliged to procure itself (by generating or purchasing it). The resulting savings constitute avoided costs.

Balancing mechanism: mechanism enabling a transmission grid operator to balance generation and consumption at all times by generating surplus amounts of electricity on the supply side and by asking consumers to reduce consumption on the demand side.

Balancing Responsible Entity: any operator who is committed to RTE, through a balancing contract, to settling the costs of imbalances observed after the fact between electricity injected (by generators within the defined area) and electricity consumed (by consumers within the defined area).

Balancing zone: geographical area on the main transmission network on which the shipper must maintain the daily balance between gas supply and consumption.

Baseload (or *Baseload product)*: on the wholesale electricity market, a "baseload" contract entails the delivery of a constant power, all day long, throughout the term of the contract. The other standard delivery profiles are "peak", "off-peak" and "blocks".

Capacity netting: carried out by grid operators, this action consists of taking into account firm nominations for commercial flows in all directions in order to free up additional capacity.

CEER (Council of European Energy Regulators): association created in 2000 by national energy regulators from Member States of the European Union and the European Economic Area. CEER's organisational structure includes a general assembly (the sole decision-making body), an executive board, working groups specialised in a range of fields (including electricity and gas, consumer rights, international strategy, etc.) and a secretariat located in Brussels. A work programme is published every year. In accordance with the association's statutes, decisions are taken by consensus or, failing that, by qualified majority vote.

Cogeneration: simultaneous production of thermal energy and electricity.

Combined cycles: see Combined-cycle power plant.

Combined-Cycle Gas Turbine: thermal power plant, usually running on gas-fired turbines, where electricity is generated in two consecutive cycles: first, through gas combustion in the turbines; and second, using the energy produced in the gas combustion process to heat boilers that feed steam generators. This process achieves high thermal efficiency (55 to 60%, compared with just 33 to 35% for conventional thermal power plants).

Commercially sensitive information (CSI): information which, if disclosed to non-authorised persons, is likely to impede free and fair competition between natural gas and electricity suppliers. In terms of natural gas, information

that must remain confidential is covered by Article 9 of Law No. 2003-8 of January 2003 and Decree No. 2004-183 of February 2004. In terms of electricity, this information is covered by Article 20 of the Law of 10 February 2000 and Decree No. 2001-630 of 16 July 2001 modified by Decree No. 2007-1674 of 27 November 2007.

Compression station: industrial facility where gas is compressed in preparation for transport via pipelines.

Conditions of Delivery Contract: contract signed between a distribution system operator and a final customer or another distribution system operator, relative to:
- natural gas delivery conditions (pressure, flow rate, etc.);
- characteristics and ownership conditions of the delivery equipment (rental of the delivery station, etc.);
- conditions for determining the quantities of energy delivered.

Congestion: state of saturation of a power line or gas pipe which prevents operators from transmitting or distributing all the quantities injected or withdrawn, given the features and performance characteristics of the grid or network.

Connection: action allowing a user to be physically connected to a network.

Continental plate: grouping of European electricity systems (Germany, Austria, Switzerland, the Benelux countries and France), where the degree of interconnection is sufficient to allow smooth physical exchanges.

Control area: geographical area where the electricity transmission grid is managed by a single operator; there is a single control area in France, but other countries can have several.

Conversion: The transmission network operated by GRTgaz has two different types of zone: the H zone supplied with gas that has a high calorific value (H gas) and the L zone, supplied with gas from Groningen having a low calorific value (L gas). The two gases are not interchangeable. Gaz de France offers a conversion service allowing shippers to exchange resources they own in the H zone against L gas.

Conversion point: virtual points assigned to balancing zones North H and North B, where the conversion takes place between these two zones.

Cross-subsidies: using resources from one activity to benefit another activity under conditions that are not determined by market forces between two separate companies.

Day ahead market (spot market): market on which exchange, purchase and sales transactions are carried out for amounts of electricity or volumes of gas deliverable the next day.

Day-ahead product: contract signed for next-day delivery.

Delivery point: point on a transmission or distribution network where a transmission or distribution system operator makes gas available to a shipper, final customer or other system operator.

Delivery station: facility located downstream of a transmission or distribution network, providing one or more of the following functions: pressure relief, regulation and metering. A delivery station is used to deliver gas to a distribution network or final customer.

Distribution System Operator-Supplier Contract: a bipartite contract between distribution system operator (DSO) and a supplier (S), which states the rights and obligations of the parties with regards to system access, system use and any data exchanges required with respect to customer delivery points connected to the distribution system. The purpose of the contract is to allow the supplier to offer customers (for whom it is the exclusive supplier) a single contract that groups together electricity supply as well as access to and use of the distribution grid.

Electricity (or power) block: on the wholesale electricity market, a “block” contract entails the delivery of constant power for several consecutive hours. The other standard delivery profiles are “baseload”, “peak” and “off-peak”.

Electricity supply: in electricity demand, a distinction is made between four types of consumer:
- a “baseload” (or “uniform”) electricity supply, which is produced or consumed permanently throughout the year;
- “semi-baseload” supply, where production and consumption are concentrated in the winter season;
- “peakload” supply, which corresponds to periods during the year when production or consumption is high;
- “spot” supply, the complement to “uniform” supply.

Electricity transmission and distribution grid: system designed for the transmission and transformation of electricity between power plants and consumption sites. It consists of power lines that provide connections at given voltage levels and substations consisting of voltage transformers, connection and cut-off devices, measuring instruments, command and control equipment and equipment to compensate reactive energy. There are three grid hierarchies:
- bulk transmission and interconnection grid which routes large amounts of energy at 400 kV or 225 kV over long distances, with low loss;
- regional distribution grids that distribute energy at a regional level, supplying the public distribution grid and large-sized industrial customers with 225 kV, 90 kV and 63 kV;
- distribution grids at 20 kV and 400 V which supply final customers with medium voltage (SME-SMI), or low voltage (household customers, tertiary sector and small industrial facilities).

Eligible customer: electricity or gas consumer authorised to apply to one or more electricity or gas suppliers of its choice for the purpose of supplying power to one of its sites or for reselling energy.

Entry point: point on a transmission or distribution network where a transmission or distribution shipper makes gas available to a transmission or distribution system operator under the terms of a transmission or distribution transportation contract.

Entry-exit tariffs: tariff system applied on gas networks in many European countries (Great Britain, the Netherlands, Italy, France). It consists of splitting the capacity subscriptions at the entry and exit points on the main network and invoicing the two transmission components (entry and exit) separately.

ERGEG (European Regulators Group for Electricity and Gas): created by the European Commission as part of implementing the 2003 directives, ERGEG's role is to advise and assist the Commission in consolidating the internal energy market by contributing to full implementation of European directives and regulations and preparing future legislation in the areas of electricity and gas. ERGEG is composed of the European Commission and independent regulators from the 27 European Union Member States. Member States of the European Economic Area and countries that have applied for membership to the Union are invited as observers. To achieve its objectives, which are also part of a public work programme, ERGEG has a structure similar to that of CEER. In addition, ERGEG widely consults energy sector players on issues where its opinion is required. This opinion also involves the European Commission, which can then give it legally binding status through the Community comitology process.

Exceptional events: circumstances beyond the control of electricity transmis- sion and distribution system operators that cannot be controlled using current techniques, that may be qualified as *force majeure,* and that have disrupted grid operations. Exceptional events that may impact public electricity grids are defined in Article 19 of the standard specifications for electricity transmission grid operators.

Exit zone: geographical grouping of delivery points belonging to the same balancing zone and having the same exit tariff.

Expense and revenue clawback account: a fiduciary account not recorded in regular accounts, provisioned with any surplus earnings and, if necessary, any loss of earnings for a public system operator. Depending on whether the balance of this account is positive or negative, it is reconciled by decreases or increases in the costs to be covered by public electricity grid tariffs in the following years.

Fixing: system for quoting a product (for example, hourly block on Powernext) by crossing aggregate supply and demand curves at a given time in the day in order to determine the price and balancing volume. Mechanism used, for example, on Powernext Day-ahead Auctions.

Florence Forum (electricity) and Madrid Forum (gas): periodic meetings, created at the initiative of the European Commission, bringing together for electricity and gas respectively, government representatives, regulators, TSOs, associations of producers, users and consumers under the supervision of the European Commission.

Forward product: forward exchange contract signed to deliver a given quantity at a given price according to a defined schedule.

Future product: forward contract negotiated on an exchange (organised market). The proposed terms vary according to the organised markets (weekly, monthly, quarterly, every six months, annually). The term Y+1 corresponds to the calendar year following the year in progress.

Gas connection facilities: pipelines and installations that connecting a final customer or distribution network to a gas transmission or distribution network. These connection works are composed of one or several of the following elements: connection, delivery stations, distribution network extension.

Gas day: period of 23, 24 or 25 consecutive hours, starting at 6:00 am on a given day and ending at 6:00 am the following day.

Gas exchange point: virtual points on a French gas transmission network where shippers can exchange gas. There is a gas exchange point in each balancing zone in the French network. Each gas exchange point is a virtual hub.

Gas quality: all physical characteristics (pressure, temperature, gross and net calorific values, Wobbe index) and chemical characteristics (amount of methane, propanes, butanes, nitrogen and other inert gases) of a distributed natural gas.

Gas release: obligation for a supplier to release part of its gas resources to other suppliers for a given period. The purpose of this operation is usually to stimulate competition by offering alternative suppliers the opportunity to secure supply without having to negotiate directly with the incumbent supplier.

Gas storage facility: facilities used to constitute gas reserves stored in the form of gas (in underground storage facilities) or LNG (in above-ground tanks).

Gas year (storage): 12-month period between 1 April and 31 March.

Gate closure:
- with referral to generation scheduling and balancing mechanisms: deadline for submitting, changing, or withdrawing a balancing bid, or for re-submitting the generation schedule and/or technical requirements and performance data of a group;
- with regards to interconnections: deadline to submit either interconnection (allocation) capacity requests or nominations of acquired capacity.

HTA: High voltage A. Voltage level between 1 and 50 kV.

HTB: High voltage B. Voltage level greater than 50 kV.

IFA 2000: France-England interconnection, with a maximum power rating of 2000 MW of direct current.

Imbalance: within a given scope, difference between total amount of energy injected and total amount of energy withdrawn.

Incumbent supplier: for electricity, incumbent suppliers are EDF, local distribution companies (LDCs) and their subsidiaries; for gas, the incumbents are Gaz de France, Tegaz, local distribution companies (LDCs) and their subsidiaries. An incumbent supplier is not considered as an alternative supplier outside its incumbent service area.

Integrated electricity company: vertically or horizontally integrated company. A horizontally integrated company conducts business outside the electricity sector and also performs at least one of the following: generation, sale, transmission and/or distribution of electricity. A vertically integrated company's business includes electricity transmission and/or distribution along with electricity production and/or supply.

Integrated natural gas company: vertically or horizontally integrated company. A horizontally integrated company is one carrying out at least one of the following functions: generation, transmission or distribution, supply and/or storage of natural gas, as well as an activity outside the gas sector. A vertically integrated gas company's business includes at least one of the following: transmission, distribution, LNG or storage, along with at least one of the following: natural gas production or supply.

Interconnected system: network or grid made up of several electricity or gas transmission and distribution networks connected together by one or more interconnections.

Interconnection: equipment used to connect two electrical grids, or pipes connecting two gas transmission networks.

Interruptible capacity product: capacity product for which the TSO is not able to guarantee continuous use throughout the entire length of the contract. Consequently, under specific conditions, the TSO may refuse nomination requests filed by the shipper who owns this interruptible capacity product.

Line pack: storage of gas in the gas transmission and distribution networks using compression.

Liquefied natural gas (LNG): natural gas transported in liquid state by cooling to -160°C, mainly so that it can be carried in LNG ships.

LNG ship: ship transporting liquefied natural gas (LNG) in its tanks.

LNG terminal: facility used to receive and store liquefied natural gas (LNG) and ship it to the main transmission network after regasification.

Load-balancing: term referring to the difference between a customer's actual gas consumption pattern and the pattern corresponding to a regular withdrawal over the year of this customer's average daily consumption. Consumption variations (daily, weekly or seasonal) are generally covered by underground storage facilities, to which the customers and their suppliers can have access, either directly (in countries where regulated or negotiated third-party access to storage systems is allowed) or in the form of a load-balancing service (as is the case in France).

Load-balancing service: service proposed in addition to the transmission or transportation contract, designed to improve management of fluctuations in natural gas use by customers on a daily, monthly, or seasonal basis. This service is provided at a virtual point, called a load-balancing point, within each of the balancing zones on the transmission network.

Local distribution company (LDC): local distribution company (non-nationalised distributor) who distributes electricity and/or gas within a given geographical area.

Main and regional gas transmission network and gas distribution network:
- the main transmission network is a set of large-diameter, high-pressure pipes linking interconnection points with neighbouring networks, underground storage facilities and LNG terminals, and to which the regional transmission networks, distribution networks and high-consumption industrial consumers are connected;
- the regional transmission network is part of the transmission network used to transport natural gas to the distribution networks and high-consumption final customers;
- the distribution network is a set of medium- and low-pressure transmission pipes used to transport gas to final customers and to other distribution networks, as necessary.

Main network exit point: point on a natural gas transmission network used as an interface between a main transmission network and a regional transmission network.

Market coupling (explicit auctions, implicit auctions): coupling several markets implies grouping their supply and demand curves and processing them all together according to their economic relevance, i.e. matching the highest purchasing orders with the lowest sales orders, independently of the market where they were placed, while taking into account the daily interconnection capacities. In other words, within the limits of available interconnection capacity, the counterpart of a transaction on an electricity exchange may originate from a foreign exchange, without participants being obliged to explicitly buy the corresponding capacity at the border in question. It is a type of implicit auction, as opposed to explicit auctions where participants trading energy across borders must buy the corresponding interconnection capacity.

Metering or estimation point: point on a transmission or distribution network where a quantity of energy is determined using meters or estimates.

Metering: measurement of the various characteristics of electricity or gas in order to determine the amount of energy produced or consumed.

Mibel: single market shared by Spain and Portugal, set up on 1 July 2007.

Mibgas: Spanish and Portuguese gas market. Work began on creating this integrated regional gas market in 2007.

Natural monopoly: a sector of economic activity characterized by strictly increasing returns, i.e. the cost of the last unit produced is lower than all the previous ones. In these conditions the average production costs are strictly decreasing, i.e. the average cost decreases with the volume produced. As a result, a single operator inevitably outperforms multiple operators, as long as measures are taken to avoid abusive use of this monopoly situation. The sectors concerned are generally those in which the investment costs (fixed costs) are so high that there is no justification in multiplying costs simply to ensure a competitive market. Examples of natural monopolies generally cited are infrastructure networks: railway networks, road and motorway networks, water and gas distribution networks, electricity distribution grids.

NBP (National Balancing Point): gas hub in the United Kingdom. Given the large volume of trading on this national hub, the prices it sets are an important reference for wholesale gas exchanges in Europe.

Negotiated Third Party Access (negotiated TPA): conditions governing system access are negotiated between the system operator and market players (eligible customers, producers, etc.) on a case-bycase basis.

Non-interconnected territories: parts of France that are not connected (by power lines) to the mainland continental system (Corsica, Martinique, Guadeloupe, Reunion, Guyana, Saint-Pierre and Miquelon and the islands of Molène and Ushant).

Non-nationalised distributors: see LDC.

Nordpool: electricity exchange among northern European countries (Norway, Finland, Sweden and Denmark).

Off-peak product: on the electricity wholesale market, an "off-peak" contract entails delivering constant power during certain time slots, generally at times when consumption is at its lowest. Thus, in France, the "off-peak" period refers to time slots between 8:00 pm and 8:00 am from Monday to Friday, plus the weekend. The other standard delivery profiles are "baseload" profiles and blocks.

Offshore (wind power installations): wind power generating capacity installed at sea.

Onshore (wind power installations): wind power generating capacity installed on land.

Open season: procedure used to size a new infrastructure according to market demand and to allocate corresponding capacities in a non-discriminatory manner.

Open subscription period (OSP): reservation time period during which all requests issued by shippers are considered as having been received at the same time. At the end of this period, all requests are processed, if necessary by allocating available capacity on a pro rata basis.

Pay-as-bid: payment rule for an auction procedure applied both for the sale of interconnection capacity or for the purchase and sale of energy as part of a balancing mechanism. According to this rule, each agent whose offer is accepted receives (or pays)the price that it proposed and provides (or receives) the proposed quantity.

Peakload product: on the electricity wholesale market, a "peak" contract entails delivering constant power during certain time slots, generally at times when consumption is at its highest. In France, the "peak" period refers to time slots between 8:00 pm and 8:00 am from Monday to Friday. The other standard delivery profiles are "baseload", "off-peak" and the blocks.

Physical hub: electricity or gas exchange point situated in a specific geographical location (example: Zeebrugge in Belgium where the exchange takes places on a physical platform).

Pluriannual Investment Programme: under French law, objectives set by the Minister for Energy for the distribution of electricity power-generating capacity according to primary energy source and, if necessary, according to the generating technology and geographical area.

Pool: mandatory electricity market where generators are obliged to offer all their means of production.

Postage stamp tariff: pricing principle which provides access to an entire service area, in exchange for the payment of a single access fee, regardless of the distance covered to transmit the electricity. This tariff is divided into two parts:
- an injection stamp: payment by the generator to deliver energy to a grid connection point;
- a withdrawal stamp: payment by the consumer to be supplied at a grid connection point.

Pressure: depending on the type of network, three pressure levels are normally used in the gas industry:
- for major international transmission, the pressure level is between 60 and 100 bar;
- for the main national and regional French networks, between 40 and 80 bar;
- for distribution networks, there are two pressure levels: medium pressure (400 mbar to 4 bar) and low pressure, supplied directly to household customers (no greater than 50 mbar).

Price cap: tariff regulation mechanism by which the regulation authority sets the rate of price level change several years in advance. This mechanism is generally considered to encourage improvements in productivity since the companies with regulated tariffs can benefit from all or part of the savings they make during the period for which the tariffs have been set.

Producer: natural person or legal entity that produces natural gas and/or electricity.

Purchase obligation: legislative measure obliging EDF and non-nationalised distributors (NND) to purchase the electricity generated in certain power-producing sectors (especially those based on renewable energy sources) under imposed conditions.

Pure transit: flow crossing a control area without being injected or withdrawn (for example, gas flowing from Belgium to Spain is in pure transit in France).

Regulated retail tariffs: electricity or gas sales tariffs offered to eligible customers who have not exercised their eligibility.

Regulated Third Party Access (regulated TPA): in the case of regulated TPA, the tariffs for grid or network access are proposed by the regulator. Access conditions are transparent and non-discriminatory for all users.

Remote meter reading: taking a reading from a remote location to determine the amount of electricity injected into and withdrawn from the grid. In France, the equipment used for remote meter reading complies with applicable metrology rules, pursuant to Article 13 of the Decree of 23 December 1994 approving the specifications of the main power supply grid.

Reversibility: the ability for an eligible customer who has signed a market-based contract to return to a contract based on regulated tariffs, under specific conditions.

Roadmaps: action plans put forward by regulators.

STS tariff: the Seasonal Transmission Subscription tariff is the integrated regulated tariff applicable to sales of gas to industrial customers who have not exercised their eligibility and to public distribution networks.

Supplier: a legal entity, holding a licence for the gas sector, or registered with the public authorities for the electricity sector, supplying at least one final customer with electricity or gas, using either energy it produces itself or energy that it has purchased.

Supply contract: contract for the sale of electricity or natural gas by a supplier to a final customer or trader.

Synchronous grid: power transmission grid with installations interconnected through AC connections and where frequency is the same at any point. In Europe, the main synchronous networks are UCTE, Nordel and the insular networks (Great Britain, Ireland, etc).

System services: services required to transmit energy from generating units to load installations while ensuring that the power system is operating safely.

Take-or-pay: long-term contract under which the producer guarantees to supply gas to an operator and this operator guarantees to pay, whether or not it takes delivery of the gas.

Task Force: working subgroup of CEER or ERGEG focussing on a specific question in the sector-based working groups (electricity, gas, consumer affairs, etc.).

Third Party Access (TPA): recognized rightfor any user (eligible customer, distributor, producer) to access a transmission or distribution system in return for payment of access fees.

Trading: buying and reselling on wholesale markets.

Transit pricing: tariff for an electricity flow crossing a control area.

Transitional regulated tariff for balancing markets (TaRTAM): regulated tariff available to customers who have exercised their eligibility and have sent in an application before 1 July 2007, for a period of two years.

Transmission shipper or distribution shipper: signatory of a gas transportation/transmission or distribution contract with a transmission or distribution system operator. A transmission or distribution shipper may be an eligible final customer, a supplier, or the representative of either one.

Transmission system operator (TSO) or distribution system operator (DSO): entity responsible for the design, construction, operation, maintenance and development of a public transmission or distribution network, performing contracts relative to third party access to these networks.

Transmission-distribution interface point, or City Gate: point where the gas transported by a transmission system operator is taken over by the distribution system operator.

Transportation & Distribution Contract: contract that sets out gas transportation conditions on distribution network in accordance with Law 2003-08 of 3 January relative to the gas market. This contract is broken down into general conditions, special conditions and appendices.

Transportation & Transmission Contract (Transmission Contract) / Transportation & Distribution Contract (Distribution contract): contract signed between a transmission or distribution system operator and a transmission or distribution shipper for the purpose of transporting quantities

of energy between one or more entry points and one or more delivery points.

Underground storage facility: installations using geological formations (aquifers or salt domes) to store gaseous hydrocarbons.

Uniform service: see electricity supply.

Union for the Coordination of Electricity Transmission in Europe (UCTE): association whose purpose is to define the operating rules for interconnections between European countries. UCTE is one of the four founding members of ETSO. This organisation includes the following countries: Austria, Belgium, Bulgaria, Bosnia- Herzegovina, Croatia, Czech Republic, Western Denmark, France, Serbia and Montenegro, Macedonia, Germany, Greece, Hungary, Italy, Luxemburg, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Switzerland.

Use-it-or-get-paid-for-it: this rule allows the holder of physical rights to interconnection capacity to choose between the following:
- physically exercising its right by submitting a firm nomination for the corresponding amount of energy to system operators sufficiently in advance or;
- transforming its physical rights into financial rights. In this case, the holder of the rights informs grid operators that it has decided to give up the physical exercise of his rights. Unused capacity is automatically reallocated to the market through the allocation mechanism below, in return for which the initial holder of the rights reaps the benefits of reallocation.

Use-it-or-lose-it: this rule obliges holders of physical rights to interconnection capacity to submit a firm nomination for the corresponding amount of energy to grid operators sufficiently in advance. This firm nomination has three advantages:
- it limits the risk of ill-intended market players withholding capacity;
- it allows grid operators to reallocate assigned but unused capacity to the market;
- lastly, it allows grid operators to carry out capacity netting operations and therefore allocate the freed additional capacity.

Use-it-or-sell-it: this rule allows holders of physical rights to interconnection capacity to choose between:
- physically using their rights, by submitting a firm nomination for the corresponding amount of energy to grid operators sufficiently in advance;
- transforming their physical rights into financial rights. In this case, unused capacity is automatically reallocated to the market according to the allocation mechanism below, in return for which the initial holder of the rights reaps the benefits of reallocation.

Virtual hub: electricity or gas exchange points that are not situated in a precise geographical location (for example, the NBP in the UK, the electricity transmission grid or the gas exchange points in France). Exchanges are made between the entry and exit points of the transmission system in the corresponding area, without any further specific details.

Virtual Power Plant: electricity sales contract based on a model of power plant operations. These contracts are generally used by a purchaser to withdraw energy from a generator, on demand, at a previously set price.

5. Acronyms

ACER: Agency for the Cooperation of Energy Regulators
AEEG: Autorità per l'Energia Elettrica e il Gas (Italian Authority for Electrical Energy and Gas)
ANROC: Association Nationale des Régies de services publics et des Organismes constitués par les Collectivités locales (French national association of state-run public services and organisations constituted by local authorities)
APX: Amsterdam Power Exchange (The Netherlands)
ARN: Autorité de Régulation Nationale (French national regulation authority)
ATR: Accès des Tiers aux Réseaux (Thirdparty access to networks)
ATRD: Accès des Tiers aux Réseaux de Distribution (Third-party access to distribution networks)
ATRT: Accès des Tiers aux Réseaux de Transport (Third-party access to transport networks)
ATTM: Accès des Tiers aux Terminaux Méthaniers (Third-party access to LNG networks)
BNetzA: Bundesnetzagentur (German regulator)
CDC: Caisse des Dépôts et Consignations (Deposit and consignment office)
CEDIGAZ: Centre d'Information et de Documentation sur le Gaz (French Centre for Information and Documentation) on Gas
CEER: Council of European Energy Regulators
CNE: Comisión Nacional de Energía (National energy Commission) (Spain)
CNR: Compagnie Nationale du Rhône
CoRDiS: Comité de Règlements des Différents et des Sanctions (Standing Committee for Dispute Settlement and Sanctions)
CRCP: Compte de Régulation des Charges et des Produits (Expense and revenue clawback account)
CREG: Commission de Régulation de l'Électricité et du Gaz (Belgian Commission for Regulation of Electricity and Gas)
CSI: Commercially sensitive information
CSPE: Contribution au Service Public de l'Électricité (Public Electricity Service Contribution)
DIDEME: Direction de la Demande et des Marchés Énergétiques (Demand and Energy Markets Department, under the authority of the French Minister for Energy)
DSO: Distribution system operator
EEX: European Energy Exchange
ElCom: Commission de l'électricité (Swiss regulator)
ENTSOE: European Network of Transmission System Operators for Electricity
ENTSOG: European Network of Transmission System Operators for Gas
ERDF: Electricité Réseau Distribution France (French Electricity distribution system operator)
ERGEG: European Regulators Group for Electricity and Gas
ERI: Electricity Regional Initiative
ERSE: Entidade Reguladora do Sector Eléctrico (Portuguese regulator)
ETSO: European Transmission System Operators
EUROGAS: European Gas Association
FNCCR: Fédération Nationale des Collectivités Concédantes et Régies (French national federation of elected officials in charge of operating local public services)
FNSICAE: Fédération Nationale des Sociétés d'Intérêt Collectif Agricole d'Electricité (French national federation of cooperative electricity companies for agriculture)
GGPSSO: Guidelines for Good TPA Practice for Gas Storage System Operators
GHG: Greenhouse gases
GrDF: Gaz Réseau Distribution France (French gas distribution system operator)
GRI: Gas Regional Initiative
GRTgaz: Gestionnaire de Réseau de Transport Gaz (Gas transmission system operator)
GTC: Groupe de Travail Consommateur (Consumer working group)
GTE: Groupe de Travail Electricité (Electricity working group)
GTG: Groupe de Travail Gaz (Gas working group)
HV: High voltage
IEA: International Energy Agency
LDC: Local Distribution Companies
LNG: Liquefied Natural Gas
LPX: Leipzig Power Exchange
LV: Low voltage
NBP: National Balancing Point
NGC: National Grid Company
NIT: Non-interconnected territory
OCM: On-the-day Commodity Market
Ofgem: Office of Gas and Electricity Markets (UK regulator)
OTC: Over The Counter
PPI: Programme Pluriannuel d'Investissement (Pluriannual investment program)
RE: Responsable d'Équilibre (Balance Responsible Entity)
RPT: Réseau Public de Transport (public transmission network)
RTE: Réseau de Transport d'Électricité (Electricity transmission grid)
SNET: Société Nationale d'Électricité et de Thermique (national company of thermal power plants)
SPEGNN: Syndicat Professionnel des Entreprises Locales Gazières (professional union of local gas companies)
TaRTAM: Tarif Réglementé Transitoire d'Ajustement du Marché (Transitional regulated tariff for balancing markets)
TIGF: Gas transmission subsidiary of Total
TSO: Transmission system operator
TTF: Title Transfer Facility ((Virtual gas hub in the Netherlands)
TURPE: Tarifs d'Utilisation des Réseaux Publics d'Electricité (Tariff for using the public electricity grids)
UCTE: Union for the Co-ordination of Transmission of Electricity
UNIDEN: Union des Industries Utilisatrices d'Énergie (Union of gas-consuming industries)
VHV: Very high voltage
VPP: Virtual Power Plant

6. Units and conversions

6.1. Gas

Volume

1 cubic metre (m^3) = 35.315 cubic feet (pi^3)
1 tonne of liquefied natural gas (t LNG) = 1,350 m^3 of gas
1 m^3 of LNG = 593 m^3 of gas

Converting weight and volume into energy

1,000 m^3 of natural gas = 0.816 ton of oil equivalent (toe)
1 m^3 of natural gas = 10.8 kilowatt hours (kWh)
1 tonne of LNG = 1.3 toe

Converting weight and volume into Btu (International Energy Agency conventions)

Equivalent to	LNG	Gas			
		Norway	The Netherlands	Russia	Algeria
1 m^3	39,343	40,290	33,550	35,855	37,125
1 kg	51,300	49,870	42,830	51,675	47,920

Energy equivalence table

Equivalent to	GJ	kWh	MBtu	th	therm
1 gigajoule (GJ)	1	277.8	0.948	238.9	9.479
1 kWh	$3.6*10^{-3}$	1	$3.411*10^{-3}$	0.86	$3.411*10^{-2}$
1 million MBtu	1.055	293.2	1	252	10
1 thermie	$4.186*10^{-3}$	1.162	$3.968*10^{-3}$	1	$3.968*10^{-3}$
1 therm	0.1055	29.32	$1*10^{-1}$	25.2	1

1 barrel of oil (West Texas Intermediate, WTI) = 0.17 MBtu (USDOE conventions)

6.2. Electricity

The standard unit used to measure electrical power (i.e., energy per unit of time) is the watt (W). The watt represents the amount of power corresponding to the generation of one joule (J) of energy per second.

The joule is defined as the work done by a force of one Newton acting to move an object through a distance of one metre in the direction in which the force is applied, given that a Newton is the force required to accelerate a mass of 1 kilogramme at the rate of 1 metre per second.

The kilowatt-hour (kWh) is the amount of energy consumed by a 1-kW appliance in one hour.

The volt (V) or kilovolt (kV) is a unit of voltage expressing the difference in electrical potential across two points of a conductor carrying a constant electric current of one ampere (unit measuring the intensity of electrical current), where power dissipation between the two points is equal to one watt.

In the field of energy, coefficients used to multiply base units apply in the same way as for other units, as explained in the table below:

Factors	Units of power	Units of energy
Kilo (k)	Kilowatt (kW) i.e., 1,000 W	Kilowatt-hour (kWh) i.e., 1,000 Wh
Mega (M)	Megawatt (MW) i.e., 1,000 kW	Megawatt-hour (MWh) i.e., 1,000 kWh
Giga (G)	Gigawatt (GW) i.e., 1 million kW	Gigawatt-hour (GWh) i.e., 1 million kWh
Tera (T)	Terawatt (TW) i.e., 1 billion kW	Terawatt-hour (TWh) i.e., 1 billion kWh

For example, total electricity consumption in France in 2008 was 436.1 TWh (as of 14 January 2009, source: RTE) and average annual consumption of a French household was 4,700 kWh.

The most recently built nuclear power plants have a unit power of 1,450 MW, while wind-power plants can reach 3 MW and the power of a household iron is 1 kW.

7. List of insets, figures and tables

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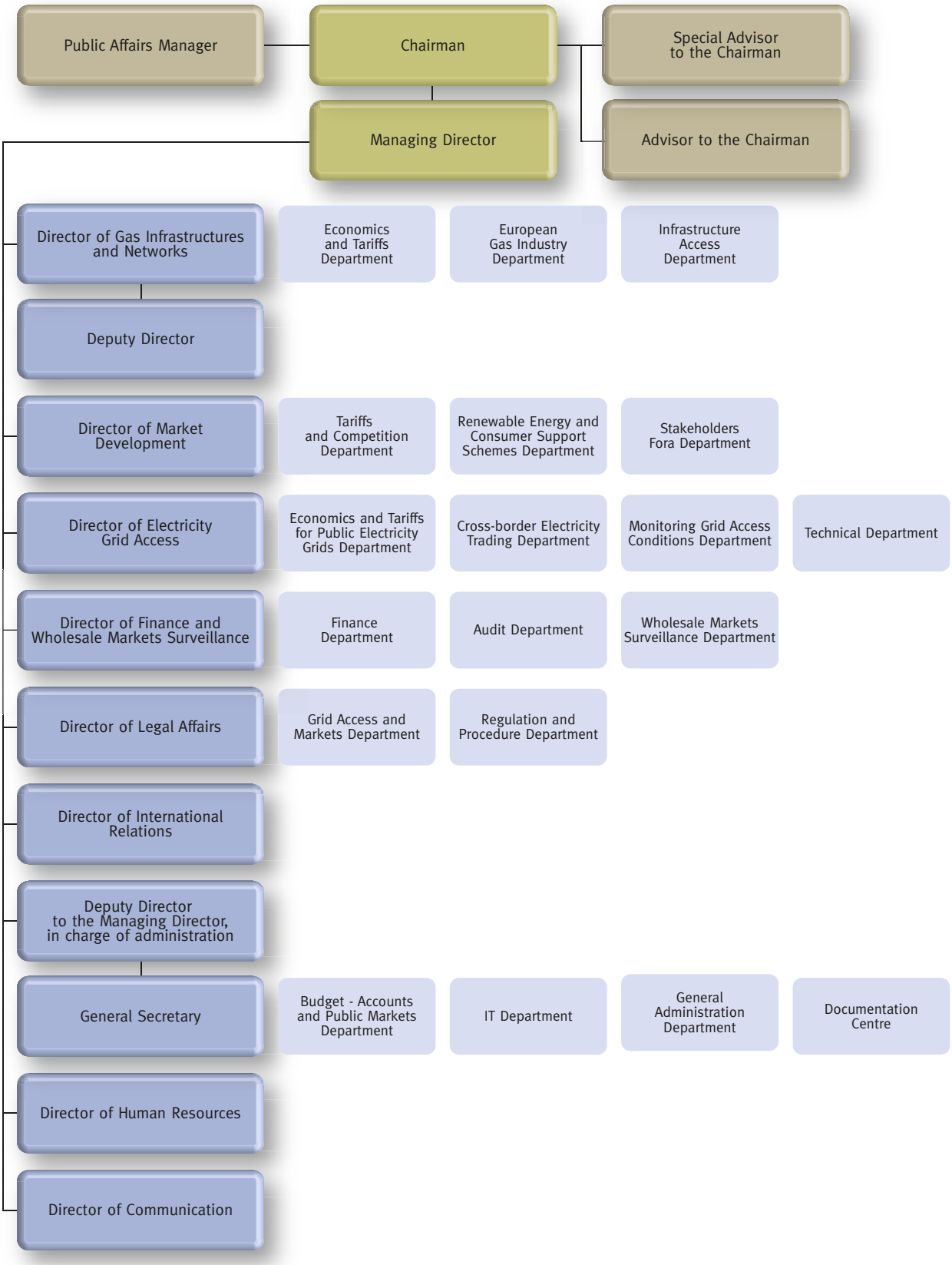
PART 3
THE REGULATOR CONTRIBUTES TO THE INTERCONNECTION OF EUROPEAN NETWORKS, OPERATIONAL RELIABILITY AND SECURITY OF SUPPLY 20

ORGANISATION CHART REVISED ON 8 APRIL 2009



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