Autorità per l'energia elettrica e il gas

ANNUAL REPORT
TO THE EUROPEAN COMMISSION
ON REGULATORY ACTIVITIES AND THE STATE OF SERVICES IN THE ELECTRICITY AND GAS SECTORS

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CONTENTS

1 FOREWORD

In this report, the Italian Regulatory Authority for Electricity and Gas provides the European Commission with an account of the current state of the Italian electricity and gas markets in compliance with the provisions of articles 3, 4, 23(1) and 23(8) of Directive 2003/54/EC for the electricity sector and articles 3, 5 and 25(1) of Directive 2003/55/EC.

The report structure follows the guidelines issued by the European Commission's Directorate-General for Energy and Transport. It begins with a short description of recent normative developments in the energy market. The report then analyses the principal elements of structural evolution in the two markets, electricity and gas, with respect to regulatory activities and the current state of competition. It also provides an update on security of supply and on public service obligations.

2 SUMMARY/ MAIN DEVELOPMENTS OVER THE LAST YEAR

Developments in the Electricity Market

In 2009, electricity demand exhibited a significant reduction compared with 2008, reflecting the slowdown of the Italian economy. Demand in 2009 was about 320.3 TWh, 5.7% down on the previous year. The peak-time power capacity requirement reached a maximum in July, of 51.9 GW.

In 2009, domestic electricity generation was 8.5% down on 2008, whereas net imports from abroad were 12.3% higher than the previous year. The Enel Group's market share of net electricity production shrank from 31.4% in 2008 to 29.8% in 2009. Of the other 3 main competitors Edison (11.1%), Edipower (6.7%) and E.ON (6.4%) all lost market share to small and medium-sized electricity producers, as well as to Eni (9.7%), which improved its position by 1 percentage point.

The Herfindahl-Hirschman Index (HHI), calculated in relation to net electricity generation, shows a reduction in market concentration, in line with the trend registered in previous years. In 2009, the HHI was equal to 1,240, compared with 1,351 in 2008.

The maximum net installed capacity on 31 December 2009 was equal to 101,447 MW, while the net available capacity (for at least 50% of the time) was 86,914 MW. Regarding net installed capacity, in 2009 five power operators held a market share of over 5%: Enel (39.8%), Edipower (8.0%), Edison (7.7%), Eni (6.2%) and E.ON (5.3%). Therefore, the share held by the main three producers was about 55.5% of total capacity. The Herfindahl-Hirschman Index (HHI) for net installed capacity was 1,819 in 2009, compared with 1,921 the previous year.

Turning to net available capacity, for at least 50% of the time electricity operators with a market share higher than 5% in 2009 were: Enel (42.6%), Edison (8.7%), Edipower (8.3%), Eni (6.7%) and E.ON (5.8%). Consequently, the share held by the main three operators was equal to 59.6%. In that respect, the HHI showed a reduction in market concentration, from 2,242 in 2008 to 2,089 last year.

Electricity trading, with a view to planning generation and consumption units, is carried out on both spot and forward markets. The spot regulated market (MPE), managed by the Italian Energy Market Operator (GME), includes the Day-Ahead Market (MGP), where electricity is traded for the following day, and the Infra-Day Market (MI), allowing operators to update their physical and commercial positions with respect to electricity trading on the MGP. The MI, set up with law no. 2 of 28 January 2009, become operational in November 2009, replacing the Adjustment Market (MA). Law 2/2009 also reformed the Dispatching Services Market (MSD), where Terna (the Transmission System Operator – TSO) procures the resources required for providing transmission and dispatching services and for power system security.

In 2009, electricity demand on the MGP was equal to 313.4 TWh, 6.7% down on the previous year. The average purchase price in the Italian power exchange (PUN) was equal to 63.72 €/MWh, 23.27 €/MWh (26.8%) less than in 2008.

Electricity trading volumes on the Adjustment Market (until October 31 2009) and on the Infra-Day Market (November and December 2009) totalled 11.9 TWh, 2.7% up on the

previous year. The weighted average purchasing price was 66.44 €/MWh on the MA, and 54.66 €/MWh and 55.69 €/MWh respectively during the two trading sessions (MI1 and MI2) of the MI. In 2009, power trading volumes on the MSD reached 45.44 TWh, about 4% up on 2008.

Despite the financial and economic crisis, in 2009 the number of operators registered at the electricity exchange reached a new maximum, of 161 participants. According to Terna, in 2009 about 282 TWh of electricity was sold on the retail market; total power consumption was about 300 TWh when self-consumption was included. In 2009, sales to customers benefiting from protected tariffs amounted to about 84 TWh, reaching more than 31 million customers, 6% down on 2008. About 68% of total volumes refer to the residential sector, corresponding to nearly 84% of total customers in this regime (more than 26 million).

In 2009, some 130,000 customers (estimated on the basis of the days-of-use criterion) were covered by safeguard provisions; their total consumption amounted to about 7.2 TWh.

Around 5.7% of electricity sales were for public lighting, while the remaining consumption related to industrial and commercial uses, with a prevalence of medium-voltage connections (65% of the total).

Sales on the liberalised market in 2009, calculated from Terna statistics net of sales under the safeguard-provision, amounted to 191 TWh, corresponding to a 2.4% reduction on the 2008 level. In the retail market, two operators held a market share higher than 5%: Enel (45.9%) and Edison (8.0%).

In 2009, there were 135 electricity distribution operators; the volume of electricity distributed amounted to 279 TWh. Enel Distribuzione was by far the largest operator, with nearly 86.2% of total distributed volumes, followed by the two major public utilities, which mainly operate in Milan and Rome: respectively, A2A Reti Elettriche (4.1%) and Acea Distribuzione (3.6%). Other operators hold marginal shares of the market. Eleven electricity distributors serve more than 100,000 customers and are consequently subject to the unbundling regime envisaged by EU legislation. Another 22 operators are affiliated with at least one wholesale or retail supplier, while 19 are distributors who don't carry out sales activity.

In 2009 the average tariff covering transmission, distribution and metering costs in Italy increased by 3.0% compared with 2008, from 2.188 c€/kWh to 2.253 c€/kWh. With regard to the quality of the electricity service, in 2009 the overall duration of interruptions per customer on both distribution and transmission networks amounted to 78 minutes (88 minutes in 2008) and the number of long power outages per year per low-voltage customer was 2.4 (as in the previous year).

Over the period 1 April 2009 to 31 March 2010, of the 16,791 communications sent to the Authority, 11,143 (67% of the total) referred to the electricity sector. The number of complaints in the sector increased by 55% compared with the previous year.

In 2009, and during the first months of 2010, the Authority passed several resolutions in the field of renewable energy sources, in particular regarding the early cessation of CIP6 schemes (incentives for use of renewables) and the definition of a reference price for green certificates. Moreover, the electricity production code, *Testo unico ricognitivo della produzione elettrica*, was revised, as were the rules governing spot trading (*Scambio sul*

posto). The Authority also passed resolutions regarding the dispatching service for electricity injected into the grid from non programmable renewable energy sources.

With resolution ARG/elt, no. 115/09, in compliance with the criteria envisaged by the Ministry for Economic Development, the Authority adopted the *Virtual Power Plant* (VPP) scheme to be applied in the Sardinia Zone. The scheme is defined in European Directive 2009/72/EC as "one of the possible measures that can be used to promote effective competition and ensure the proper functioning of the market". More specifically, the Authority required that the two main electricity producers, Enel and E.ON, should give up virtual power capacity corresponding to at least 25% of regional consumption, by means of an auctioning process to select qualified counterparts.

At the same time, with resolution ARG/elt no. 52/09, the Authority introduced a new regulation for essential power plants (that is, power plants owned by an individual producer and whose functioning is required to satisfy electricity demand securely and safely). The new regulation should solve many problems related to the high concentration of power supply on the MSD.

Developments in the gas market

Based on preliminary calculations using the data collected in the annual survey conducted by the Authority on the state of the electricity and gas markets, in 2009 there were 93 gas suppliers in the wholesale market against 79 the previous year. This number has almost doubled since the complete opening of the gas market in 2003. Overall, wholesalers traded 110.9 G(m^3), of which 43.5 to final consumers and 67.4 to other wholesalers. The overall volume traded by wholesalers remained stable with respect to 2008, but this was the result of a 0.7% increase in sales on the wholesale market and a reduction of 1.0% in direct sales to final consumers. The reduction in volumes sold directly to consumers and the increase in those sold on the wholesale market has been an ongoing trend for a few years now. This appears to confirm an increasing specialisation in the wholesale market – even in a year of economic crisis like 2009, in which the market did not show signs of growth while suppliers grew in number. Medium-size suppliers, with sales between 1 and 10 G(m^3), are the only ones who appear to have sold a higher volume of gas with respect to 2008 (up 20%). In contrast, the overall gas volumes sold by Eni fell by nearly 25% and those sold by small suppliers, by 8%.

In 2009, 37 companies (up from 33 in 2008) declared sales volumes on the wholesale market greater than 300 M(m^3). These companies accounted for 96.1% of total sales in this market, which continues to be highly concentrated, albeit decreasingly so. More specifically, the share of the first 3 companies – Eni, Enel Trade and Edison – decreased to 39.6% (compared to 50.2% last year); that of the first 5 companies, which also include Plurigas and Gaz de France, fell to 50.6% (from 59% in 2008).

Direct imports account for 54% of wholesalers' gas procurement. Some 23% of the gas procured on the wholesale market is purchased from other traders (at the border or at the city gate), almost 15% is purchased at the PSV (Virtual Balancing Point) and 6% is produced domestically. Imports are the main source of supply, particularly for large companies, while purchases on the wholesale market and at the PSV increase in

importance with decreasing company size. Purchases at the PSV, typically in small-sized lots, are concentrated with very small wholesalers, who accounted for 35% of these sales.

The share of gas imports held by the Eni group (47.9%) remained dominant in 2009, despite the effects of the economic crisis, the coming into operation of the new terminal in Rovigo and expansion work on international pipelines. If we take sales made outside Italian territory into account, the share of gas supplied by the Eni group rises to 64.2%.

The two largest companies' share of supply to the national market fell to 19.7% for Eni (from 35% in 2008) and to 7.4% for Enel (from 8.5%). Conversely, the Edison Group's share increased from?? 5.8% to 7.5% and that of the remaining companies, who supplied 48 out of 73.5 G(m^3) overall in the national market, from 50.5% to 65.4%. Taken overall, this indicates a dynamic wholesale market. Part of the gas purchased by Eni is related to gas release, the gas supplied on a compulsory basis to the PVS by Eni following the conclusions reached by the enquiry conducted by the Italian Competition Authority in April 2006. While the ruling imposed a gas release of 2 G(m^3)/year, in 2009 the actual gas release only amounted to 1 G(m^3). Considering the volumes of gas that each group purchases from Eni (both on the national market and outside the border), significant fractions of the gas available to these companies can be credited to the incumbent, although these fell markedly with respect to 2008. ENEL's share fell to 6.5% (14.9% in 2008) and Edison's to 20% (38.9% in 2008) while for the remaining companies the figure varies from 12% to 21% of available gas (13%-35% in 2008).

In May 2009 the Italian gas hub was set up by a Ministerial decree which established a gas platform (P-GAS) based at the Gestore dei mercati Energetici (GME). In this first phase the GME plays a brokerage role between suppliers and purchasers. In the second phase, which will start at the beginning of the next thermal year, it will became the main counterparty in supply contracts.

2009 was a negative year for the consumption of natural gas: the MSE puts the figure for gross domestic consumption (inclusive of losses of about 1.4 G(m^3)) at 78.05 G(m^3), compared with 84.90 G(m^3) in 2008. Based on the preliminary results of the Authority's annual survey on the evolution of the gas sector, sales to the retail market amounted to 66.55 G(m^3) in 2009. Adding 12.49 G(m^3) of self-consumption (gas directly consumed in manufacturing companies' generating plants), then the overall volume of gas consumed in Italy comes to 79.04 G(m^3), higher but very close to the value of 78.05 G(m^3) indicated by the MSE.

The level of market concentration (inclusive of self-consumption) diminished in comparison with the previous year: the share of the first three groups fell to 57.5% from 62.7% in 2008. Moreover, as in the previous year, the market share of Eni sales has fallen further (32.5% against 37.1% in 2008) to the benefit of Edison (12.4% against 10.4% in 2008). ENEL's share also decreased (12.5% against 15.2% in 2008). As in the previous year, four market participants had a share of over 5%: the first three of the above-mentioned and the A2A group (which originated from the merger of two pre-existing groups: Aem Milano and ASM Brescia). Excluding self-consumption, 2009 saw five groups with sales exceeding 5% of the total (Eni, Enel, Edison, E.On and Energie Investimenti).

The gas retail market consists of almost 21 million customers: 93% are domestic customers, 6% trade and services businesses, 1% are in manufacturing and less than 1% are power generators (in terms of volumes the shares obviously tend to reverse). As we shift away

from the domestic segment to industrial segments which use gas as an input to their production processes, the share of volumes purchased on the free market increases accordingly: from 10.4% in the domestic segment, to 63% in trade and services, 97% in manufacturing and 63% in power generation (self-consumption explains the figure here). The share of volumes purchased on the free market appears to have increased in all segments in 2009, with the exception of the trade and services sector.

Around 2% of all final customers changed supplier in 2009, corresponding to 44.2% in terms of gas volumes. Domestic customers appear to be more cautious in shifting to the free market: only 1.8% of them chose a new supplier in 2009 (2.4% in terms of gas volumes). Apartment blocks with common heating and other facilities, and other-use customers, appear to be more dynamic. Switching rates increase strongly with customer size. Higher gas volumes imply higher expenditure: the opportunity to make significant savings, normally the main reason for changing supplier, increases in line with knowledge of the sector and customers' ability to make informed choices.

In 2009, the average price of gas (net of taxes and weighted by quantity sold) quoted by sales companies and wholesalers operating on the retail market was 36.58 €c/m^3. The equivalent price in 2008 was 39.25 €c/m^3. As a whole, therefore, the price of gas in Italy fell by 6.8% as a consequence, with the usual time lags, of the decrease in the oil price in 2008. Customers in the protected market paid 48.85 €c/m^3 on average for gas, while 30.88 €c/m^3 was the average price paid by those in the liberalised market. The price differential is therefore just under 18 c€/m^3. Given that the price on the free market fell by 14% with respect to 2008 while the price of gas sold in the protected market increased by 3.1%, the price differential increased and returned to the 2007 levels. The price differential in the two markets, and the different trends in the period under consideration, reflect the higher average size of customers in the free market. This implies a more flexible price system which responds more closely and more rapidly to changes in international fuel prices. The protection mechanism devised by the Authority (linked to variations in a long price-basket moving average) can amortize the effects of sharp oil market price increases on the gas price, but is slower to respond when international fuel prices decrease.

Between 1 April 2009 and 31 March 2010, the Authority received 16,791 complaints, petitions and notifications from individual consumers and consumers' associations, of which 5,404 referred to the gas sector (almost 33% of the total). Overall, complaints in the gas sector increased by 44% with respect to the previous year. Communications relating to the gas sector are significantly less numerous (by nearly half) than those relating to the electricity sector, as a result of the lower number of customers involved and the lower degree of development of the market. The most frequent reasons for complaints and communications are: billing, market, contracts, commercial quality, connections, prices and disconnections.

On the matter of tariff regulation in the gas sector, in 2009 the Authority approved the criteria for the regulation of both metering tariffs and transport and dispatching tariffs for the third regulatory period. In line with the measures adopted in the electricity sector also, other gas tariff rulings were designed to harmonize the relevant methodologies in the two sectors and increase operators' efficiency levels. The Authority has set up procedures to review the tariff criteria for storage facilities for the regulatory period 2010-2014 and has also validated, until 31 December 2010, the tariffs approved for thermal year 2009-2010.

As regards infrastructure regulation, the Authority advanced proposals to adapt the regulations on gas balancing and storage facilities to the requirements of art 3 of Legislative Decree 78/2009. These proposals aim to maximise the flexibility available to gas market operators. They also adapt the tools for gas exchanges as applicable to a wider context of revised regulation, by introducing a dedicated market for the provision of balancing resources.

The Authority also approved the criteria for the allocation of gas balancing resources following the revision of metering data after the closure of the transport balance. This is a first important step in the overall reform of the gas balancing mechanisms. As regards settlements and information flows, a procedure was established for the allocation of gas quantities to users of the system. The Authority considers this procedure as one of the most urgent in defining the rules governing the gas market.

Changes and additions to the transport, distribution, storage and re-gassification network codes, requested by operators, have been approved by the Authority. Provisions regulating the quality and security of supply of gas concerned the distribution and supply services (security, continuity and commercial quality); the quality of the transport service (security, continuity and commercial quality); the quality of gas; the quality of storage services; and post-metering-point security.

Security of supply issues - Electricity

In 2009, as a result of the economic recovery over the year summer peak demand exceeded the winter peak level, although the difference was significantly lower than in the previous year (51,2 versus 51,9 GW). The persisting economic uncertainty makes peak demand forecasting for the coming years even more difficult. However, the unprecedented peak registered in 2007 is not likely to occur again before 2014.

The strong expansion of generating capacity that started in 2004-2005 continued in 2009, although at a generally lower rate (by 2.9%) compared with previous years Net installed power at the end of 2009 amounted to 102.2 GW, including 64.5 GW available at the summer and winter peaks. In contrast with the past, most of the capacity growth came from wind plants, rather than thermoelectric plants; the latter occupied third place, coming behind even photovoltaic plants, whose overall power capacity has already overtaken geothermal capacity.

Nevertheless, the generation structure has not changed significantly, still being dominated – by a wide margin – by thermoelectric plants.

The large excess of supply, 12.6 GW of power availability at the peak registered in 2009, originated from the drop in peak demand (of 8.7% with respect to the peak reached in 2007).

The power currently available would be sufficient to meet the peak demand expected by Terna in 2015, with an excess of 3.8 GW still available. However, considering the uncertainty overshadowing the evolution of electricity demand in coming years, there is a risk of a system shortfall, if at least a further 5–7 GW of thermoelectric capacity is not installed in the next five years.

In 2009 electricity demand bottomed out at 320.3 GkWh, 5.7% lower than the previous year and lower even than the 2003 level, an exceptional drop in size, at least in the last six decades. In line with the fall in consumption, thermoelectric generation decreased (by 8.5%), in favour of an increase of 18.1% in hydropower and of 22.1% in the other renewables.

At the end of 2009 new fossil fuel thermoelectric plants totalling 7.9 GW were authorized (including 2.6 GW expected to begin operating during 2010, with the remaining 5.3 GW coming into play by 2012). In addition, more than 50 plants, corresponding to an overall power capacity of at least 23 GW and scheduled to come on line from 2013 onwards, were still under scrutiny. Finally, a significant growth in new power capacity (of at least 5 GW) is expected in the next 3–4 years, notwithstanding the cut in incentives.

Most of the new generation plants (under construction) are experiencing considerable delay as a result of obstacles in the evaluation procedures, the length of the authorisation processes at the national and local levels, and the increasing number of appeals against plants already authorized.

Network overloading in the north and centre-north and shortfalls in supply in the south of the country still persist, as in previous years.

The delay in the upgrade of transmission capacity and/or transformer capacity in VHV and HV stations, as a result of authorisation problems at the local level, is holding back the solution of the current problems.

One example is the Sorgente–Rizziconi line between the Continent and Sicily. This was finally authorised in July 2010, after 42 months of assessments, negotiations and appeals.

The 2010-2014 Terna investment plan, regarding lines of critical importance to the security and efficiency of the transmission service, contains important steps forward in terms of quality of supply and the solution of congestions in critical areas. The slow pace of implementation – at the end of 5 years 35% of the works will probably still be incomplete – should however be highlighted. In order to accelerate investment, the Authority is introducing a mechanism that will allow Terna to anticipate the remuneration of invested capital before implementation.

Security of supply issues - Gas

The economic collapse of 2009 reflected significantly on the balance of natural gas as it determined a significant decrease in consumption, production and imports/exports. The collapse of consumption for power generation (down 15.7%), even sharper than that of generation from oil derivates (down 8.9%) and due mainly to the time-lag in the fall in natural gas prices with respect to those of oil and coal, was particularly striking. The decrease in consumption was equally strong for the manufacturing sector (down 15.2%), while the domestic sector showed a significant increase (of 4.6%) as a result of the rather cold winter.

The fluctuation in natural gas demand over the last five years, combined with the effects of the economic crisis, make any forecast of a recovery in consumption somewhat difficult. The operators, however, predict a slow recovery starting this year and not reaching the

levels of the historic 2007 peak before 2014. In 2015, natural gas should overtake oil as the country's primary energy source.

The production of natural gas decreased by 13.4% in 2009, to just under 8 billion m^3, a major step back in absolute terms and one that returns Italy to its 1965 values. The available data suggest that the fall in production cannot be halted in the next few years. The strong fall in national consumption led to an even stronger fall in imports as a result of the withdrawal of gas from underground storage. In 2009, 81.3% of imported gas came from four non-EU countries (Algeria, Russia, Libya and Qatar), with the remainder coming from a further six countries. This shows a good degree of diversification in supply which should increase still more with the start of operations at the LNG terminal in Rovigo in 2010.

In thermal year 2008-2009, allocable capacity by pipeline increased by 2.2%, to 296.6 million m^3/day, following the completion of Eni's upgrades to the TAG pipeline from Russia and the Greenstream pipeline from Libya. Moreover, the entry into operation of the Rovigo terminal has seen import capacity by sea increase by 25% over the last five years, from 297 million m^3/day in thermal year 2006-07 to 375 in 2008-2009. In its 2010-13 strategic plan, Snam rete Gas forecast a further increase, to 380 million m^3/day in 2013 and 415 by 2015, talking into account a capacity increase of the Greenstream pipeline to 11.5 billion m^3/year.

Progress has been made on all five new import pipelines, with an overall capacity of between 38 and 50 billion m^3/year of gas coming mainly from Middle East, North Africa and the Caspian Sea area. However, none of these pipelines is expected to begin operating before 2014.

2009 saw many new developments involving LNG terminals, first of which the entry into operation of the Rovigo terminal, with a capacity of 8.0 billion m^3/year of gas from Qatar. Other new projects now at an advanced stage include the Porto Emedocle terminal (8 billion m^3/year), which is completing the tendering procedures for works scheduled to begin in 2011. Important advances were also made in the Livorno and Gioia Tauro projects (with an overall capacity of around 16 billion m^3/year).

The increased maximum pressure in some plants allowed an increase, in the thermal year 2009-10, in the overall active national storage reserve by 400 million m^3 with respect to the previous year, reaching 14.3 billion m^3.

Excluding the share of gas required for strategic storage, 9.2 billion m^3 remain for storage and modulation needs and for the operation of network balancing services. The peak of available gas – 152 million m^3 – at the end of the season has remained unchanged for five years. Significant progress was made on 5 or 6 new plants, with an overall active reserve of around 2 billion m^3/year. However, there will not be any additional new capacity before 2010, when the Cotignola-San Potito facility being developed by Edison Stoccaggio, with an active reserve of 915 million m^3/year, begins operating.

Unless long-term interruptions occur in supplies from our major suppliers (Algeria and Russia), in view of the fall in demand for natural gas and the projected increase in import capacity, no problems of supply will emerge in future years.

Public service issues and consumer protection

In 2009 the Authority pursued its activities to achieve an enhanced level of customer protection in the electricity and gas sectors. Regulation was reinforced, both to enhance customers' ability to make informed choices from the different commercial offerings on the market and to progressively harmonize the regulation of commercial aspects of the services, with due respect for the structural differences between the two sectors.

In this regard, a consultation document for the adoption of harmonised Commercial Codes of Conduct for the supply of both electricity and gas was published. This envisaged extending the tools for comparing different commercial offers to the gas sector and to dual fuel contracts, which are becoming increasingly widespread in the free market. New harmonized rules for the transparency of billing documents for the two sectors have also been adopted. With the new rules, which will enter into force from 1 January 2011, electricity and gas bills will be more transparent and easier to understand.

Relevant to both sectors was the introduction, from 1 December 2009, of the *Sportello per i consumatori dell'energia elettrica e il gas*. This is operated by the Single Buyer on the basis of a project, coordinated by the Regulator, encompassing the period 1 December 2009 – 21 December 2012.

As envisaged by the Regulation issued by the Authority, the *Sportello* manages and responds to written observations and complaints from customers; communications which, in the liberalized context, are quickly growing in number. The *Sportello* also operates a call centre which provides customers with all available information regarding their rights, the liberalised energy markets, and how to choose the supplier that best suits their needs.

During 2009 *Trova-Offerte*, the on-line tool set up by the Authority in the month of April to enable customers to compare and take advantage of different market offerings by entering into new supply contracts, was used intensively.

To provide increasingly complete and transparent levels of information, the Regulator has developed other new initiatives for consumers, among which the *Atlante dei diritti del consumatore di energia* (manual for electricity and gas customers). Other dedicated information tools have been developed for customers under the enhanced protection regime (i.e. domestic and small commercial firms) to facilitate the entry into force, from July 2010, of new economic conditions which will differ at different times of the day and year.

In revising the rules governing defaulting electricity customers, the Authority has adapted some of the contractual conditions of the enhanced protection regime and adjusted the amount of the compulsory deposit, which was set in 1999.

The new rules for vulnerable electricity and gas customers entered into force on 1 January 2009.

The volumes of energy consumed by the domestic segment in the protected market are still very high (92% in electricity and 89% in gas), although they appear to have fallen slightly, and at a constant pace, since 2007. The volumes consumed by the non-domestic segment have gradually but markedly shifted, in the last two years, to the free market; no sign of reversal of this shift is emerging.

3 REGULATION AND PERFORMANCE OF THE ELECTRICITY MARKET

3.1 Regulatory issues

3.1.1 Management and allocation of interconnection capacity and mechanisms to deal with congestion

With Resolution ARG/elt 182/08 of 12 December 2008, the Authority defined the rules to be applied in 2009 for electricity imports and exports, in compliance with the criteria envisaged by the Ministry for Economic Development's decree of 11 December 2008. And with Resolution ARG/elt 194/09 the Authority also established, under the criteria set out in the Ministry's Decree of 18 December 2008, the arrangements for the allocation of interconnection capacity with neighbouring countries for 2010.

More specifically, the Authority approved the rules drawn up jointly by network operators and by the regulatory authorities of the countries taking part in the regional initiative for Central-South Europe (Italy, Austria, Germany, France, Greece and Slovenia) under the umbrella of the European Regulators' Group for Electricity and Gas (ERGEG). As in 2009, interconnection capacity will be allocated in 2010 through explicit annual, monthly and daily auctions run by each network operator for exports in its area of competence.

With a view to fostering increasing harmonisation of the allocation rules in Central-South Europe, during the first half of 2010 total available capacity at the French border (for imports and exports) will be managed solely by Terna.

The auctions for the allocation of interconnection capacity assign certificates, known as Transmission Capacity Rights (TCRs), to market operators. These allow operators to import or export electricity in quantities corresponding to the total TCRs acquired. TCRs can be freely transferred from one dispatching user to another. Since 2009, for TCRs purchased at the annual or monthly auctions and remaining unused, the "use it or get paid for it" criterion has been applied. This means that unused TCRs are automatically sold by grid operators at the daily auction and the revenue from the sale is transferred to the original holders.

With resolution ARG/elt 194/09, the Authority also introduced different arrangements for Terna to manage the revenue from cross-border capacity allocation auctions. Starting from 2010 this revenue, which until 2009 was returned pro-rata to dispatching users, will be used to cover any costs incurred to ensure that the assigned capacity was actually available. It will therefore be used to offset the costs incurred by Terna in providing dispatching resources.

Tables 3.1 and 3.2 show the approximate annual interconnection capacity allocations for imports and exports to and from Italy at each border for 2010.

Table 3.1 Import capacity – approximate, non-binding values

MW; 2010

PERIOD	BORDER	MONDAY TO SATURDAY		SUNDAYS AND PUBLIC HOLIDAYS	
		From 7.00 to 23.00	From 23.00 to 7.00	From 7.00 to 23.00	From 23.00 to 7.00
Winter	France	2,650	2,535	2,535	2,535
	Switzerland	3,890	3,400	3,400	3,400
	Austria	220	210	210	210
	Slovenia	430	395	395	395
	Greece	500	500	500	500
Summer	France	2,400	2,250	2,182	2,250
	Switzerland	3,160	2,790	2,876	2,790
	Austria	200	190	182	190
	Slovenia	330	310	300	310
	Greece	500	500	500	500

Source: *Access rules to France-Italy, Switzerland-Italy, Austria-Italy, Slovenia-Italy, Greece-Italy interconnections*, compiled by Terna and the other network operators taking part in ERGEG's Regional Initiative for Central-South Europe working group

Table 3.2 Export capacity – approximate, non-binding values

MW; 2010

PERIOD	BORDER	MONDAY TO SATURDAY		SUNDAYS AND PUBLIC HOLIDAYS	
		From 7.00 to 23.00	From 23.00 to 7.00	From 7.00 to 23.00	From 23.00 to 7.00
Winter	France	995	1,160	1,160	1,160
	Switzerland	1,810	1,910	1,910	1,910
	Austria	85	100	100	100
	Slovenia	160	180	180	180
	Greece	500	500	500	500
Summer	France	870	1,055	1,055	1,055
	Switzerland	1,440	1,660	1,660	1,660
	Austria	70	90	90	90
	Slovenia	120	145	145	145
	Greece	500	500	500	500

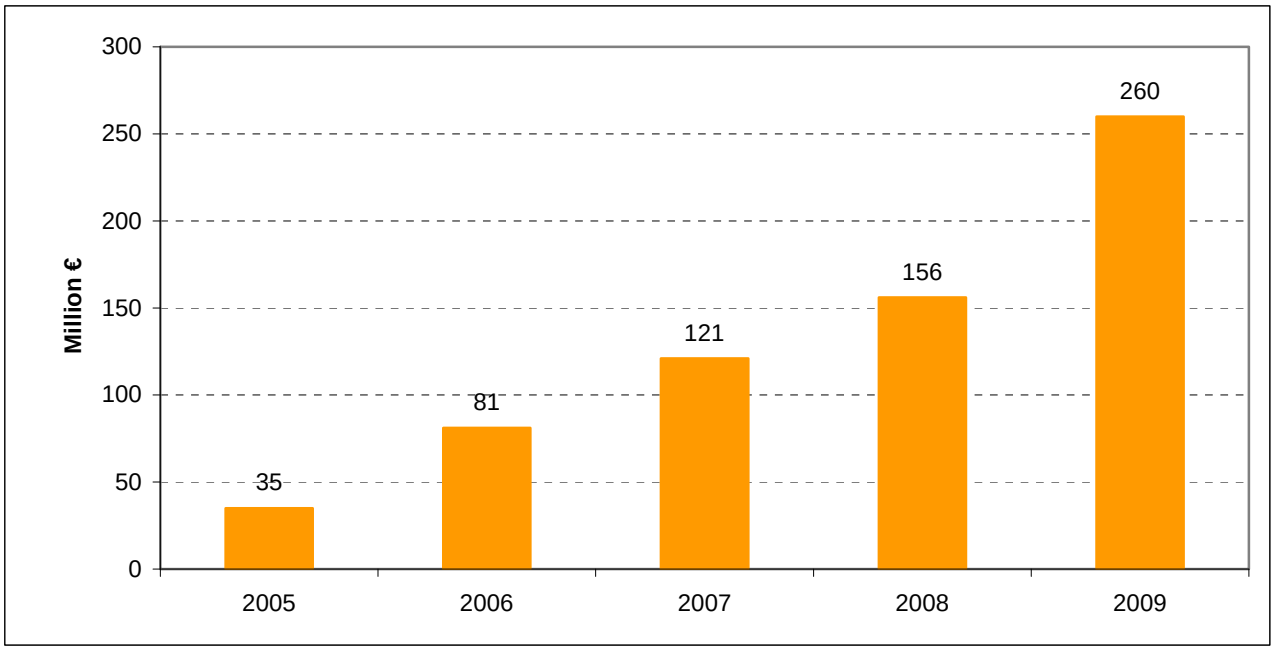
Source: *Access rules to France-Italy, Switzerland-Italy, Austria-Italy, Slovenia-Italy, Greece-Italy interconnections*, compiled by Terna and the other network operators taking part in ERGEG's Regional Initiative for Central-South Europe working group

In the Italian electricity exchange, virtual foreign zones have been defined to enable congestions on lines connected with neighbouring countries to be managed. These represent cross-border connections with neighbouring countries. In 2009, as a result of the

application of the capacity allocation mechanism through explicit auctions, the price differential between Italian and neighbouring zones was cancelled out, and consequently so too was the revenue from foreign congestion.

One indicator of the degree of zone-level congestion (at the national level) is the amount of congestion rent, which corresponds to the price differential between zones multiplied by the volumes traded. In 2009 domestic rent rose significantly with respect to the previous year, from 156 million euros to 260 million, an increase of 67.3%. Most notably, September saw a revenue of 50.5 million euros, nearly double that of August (up 98.6%) and nearly triple the figure for September 2008 (up 257%). The transit contributing most to domestic rent is the Centre South-South transit, which saw a considerable increase with respect to the previous year. Rent collected on the North-Centre North and Centre North-Centre South transits saw a decline.

Figure 3.1 Rent from domestic congestions between 2005 and 2009



Source: Electricity Market Operator (GME).

2009 saw an upturn in net imports (of about 44.5 TWh), the result of increased import flows coupled with a reduction in export flows. Compared with the situation in 2008, the interconnections with Slovenia and Greece saw a strong increase in imports, while that with France saw a reduction. As regards exports, the reduction in electricity flows was almost exclusively confined to trade with Greece.

3.1.2 Regulation of the tasks of transmission and distribution companies

Terna owns almost all of the national transmission grid (RTN). Other shareholders include Self Rete Ferroviaria Italiana S.p.A., Agsm Trasmissione S.r.l. (Verona), Retrasm Asm S.r.l. (Brescia) and Azienda Energetica Trasmissione Bolzano.

In 2009, the amount of 150-132 kV transmission lines increased considerably with the inclusion of the grid owned by TELAT (Terna Linee Alta Tensione) in the assets of the

national grid operator. TELAT, to which ENEL's high-voltage distribution lines were transferred, was established in November 2008 under the name of ELAT (Enel Linee Alta Tensione). ENEL and Terna signed a contract, completed in April 2009, for the sale of the holding in ELAT. The company was then re-named TELAT and the newly acquired network included in the national transmission grid.

The national grid also included over 491 km of 500 kV lines in 2009, following the implementation of the first stage of the SAPEI project linking Sardinia to the mainland.

At 31 December 2009, Terna's main shareholder, the *Cassa depositi e prestiti* (the Loan and Deposit Fund), held 29.99% of the share capital. Enel and the asset manager Pictet Asset Management held 5.1% and 4.9% respectively, with the remaining 60% or so of the capital distributed between institutional investors and other shareholders.

Significant transactions in the electricity distribution sector in 2009 included the incorporation of ASM Distribuzione Elettricità in AEM Distribuzione Energia Elettrica on 1 April. This led to the creation of A2A Reti Elettriche, which operates in the provinces of Milan and Brescia.

Enel Distribuzione also acquired the distribution activity of the municipalities of Ingria (Turin) and Telti (Olbia-Tempio), while Stet took over the service operated by Sant'Orsola Terme (Trento). Lastly, Set Distribuzione acquired the distribution service run by Besenello (Trento).

Table 3, showing the breakdown of distribution activities by company in 2009, clearly illustrates the large proportion of companies belonging to public bodies (44.2%), a percentage which is, however, much lower than in 2008 (by 10%). Also significant is the presence of natural persons (32.5%), up 13 percentage points on 2008, and of companies not operating in the energy sector (15.3%).

Table 3.3 Ownership structure of distributors

2009

TYPE OF SHAREHOLDER	% SHARE CAPITAL
Public bodies	44.2
Natural persons	32.5
Companies, various	15.3
National energy utilities	3.9
Local energy companies	2.9
Floating stocks	0.7
National financial institutions	0.4
Foreign financial institutions	0.1
Total	100.0
Public bodies	44.2

Source: AEEG, from declarations submitted by operators

Table 3.4 shows the geographical distribution of distribution networks and operators broken down by type of grid, as resulting from the data collected by the AEEG from distributors. The high number of distributors in Trentino Alto Adige Region emerges clearly, compared with a grid which, in terms of length, accounts for less than 2% of the national total.

Table 3.4 Length of distribution grids at 31 December 2009

Grids in km and no. of distributors

REGION	HIGH & VERY HIGH VOLTAGE	MEDIUM VOLTAGE	LOW VOLTAGE	NUMBER OF DISTRIBUTORS(A)
Valle d'Aosta	57	1,499	2,569	2
Piedmont	32	28,427	63,738	11
Liguria	-	7,022	21,383	2
Lombardy	151	46,814	82,926	13
Trentino Alto Adige	175	7,630	14,953	67
Veneto	56	26,391	61,285	3
Friuli Venezia Giulia	4	8,079	14,957	6
Emilia Romagna	154	32,379	65,767	3
Tuscany	167	26,375	57,405	2
Lazio	614	28,483	65,300	6
Marche	-	11,603	29,796	8
Umbria	-	7,989	18,222	1
Abruzzo	-	9,836	25,370	3
Molise	-	3,629	7,860	1
Campania	-	24,300	58,810	5
Puglia	-	28,695	59,882	3
Basilicata	-	9,808	14,839	1
Calabria	-	17,636	41,591	1
Sicily	-	35,983	75,929	11
Sardinia	-	17,849	33,905	2
Total	**1,411**	**380,427**	**816,489**	**151**

(A) Each distributor is counted once for each region in which it operates

Source: AEEG, from data collected from distributors

Italian distribution companies are 135 in number and account for a total volume of 279 TWh. ENEL Distribuzione is the country's leading distributor, with 86.2% of the volumes distributed, followed by A2A Reti Elettriche (4.1%) and Acea Distribuzione (3.6%). The other distributors hold marginal shares (Table 3.5).

Table 3.6 shows distribution activity broken down by number of withdrawal points. It also shows volumes distributed for each category, with the total and average per operator. Enel Distribuzione, Acea Distribuzione, A2A Reti Elettriche and AEM Torino Distribuzione belong to the first category (>500,000 withdrawal points), while 53 distributors serve fewer than 1,000 withdrawal points.

Table 3.5 Electricity distribution by group in 2009

Volumes distributed

GROUP	GWh	% OF TOTAL
Enel Distribuzione	240,856	86.2%
A2A Reti Elettriche	11,516	4.1%
Acea Distribuzione	10,168	3.6%
Aem Torino Distribuzione	2,735	1.0%
Hera	2,177	0.8%
Set Distribuzione	2,106	0.8%
Agsm Distribuzione	1,833	0.7%
Aim Servizi a Rete	953	0,3%
Azienda Energetica Reti	913	0.3%
Enia	894	0.3%
Other operators	5,330	1.9%
Total	**279,482**	**100.0%**

Source: AEEG, from data collected from distributors.

Table 3.6 Distributors' activity

2009

NUMBER OF WITHDRAWAL POINTS	NUMBER OF DISTRIBUTORS	DISTRIBUTED VOLUME (GWh)	NUMBER OF WITHDRAWAL POINTS	AVERAGE VOLUME PER DISTRIBUTOR (GWh)	AVERAGE NO. OF WITHDRAWAL POINTS PER DISTRIBUTOR
> 500,000	4	265,276	34,553,348	66,319	8,638,337
100,000–500,000	7	9,544	1,228,721	1,363	175,532
50,000–100,000	1	953	71,464	953	71,464
20,000–50,000	8	1,642	235,709	205	29,464
5,000–20,000	22	1,444	226,850	66	10,311
1,000–5,000	40	522	90,350	13	2,259
< 1,000	53	102	19,820	2	374
TOTAL	135	279,482	36,426,262	2,070	269,824

Source: AEEG, from data collected from distributors.

Transmission and distribution tariffs

Each year, the Authority reviews electricity tariffs covering network and metering infrastructure (high voltage transmission, local distribution and metering services). These annual reviews encompass:

- the real-term reduction of the tariff component covering operating costs, based on the price cap mechanism;

- adjustments to the remaining tariff components covering depreciation and return on invested capital, to account for new investments undertaken to improve security, competition and service quality.

The average tariff covering transmission, distribution and metering costs in Italy for 2010 increased by 3.0% on 2009, from 2.188 c€/kWh to 2.253 c€/kWh (table 3.7).

Table 3.7 Average annual tariffs for transmission, distribution and metering services

c€/kWh

	TRANSMISSION	DISTRIBUTION	METERING	TOTAL
2010	0.385	1.597	0.271	2.253
2009	0.363	1.547	0.278	2.188
2008	0.345	1.534	0.273	2.152
Difference 2010-2009	0.022	0.050	-0.007	0.065
% change 2010-2009	6.1%	3.2%	-2.5%	3.0%

Source: AEEG.

Continuity of electricity supply and commercial quality

The improvement seen in 2008 in the continuity of the electricity supply with respect to previous years was confirmed in 2009. In the transmission sector, service continuity is commonly measured using the Energy Not Supplied (ENS) indicator. The ENS remained essentially unchanged, rising only slightly from 2,440 MWh/year in 2008 to 2,464 MWh/year in 2009. In the course of 2009 the previous year's reduction in the number of outstanding events (that is, power outages having a major impact in terms of ENS) was confirmed. Just one outstanding event occurred, in the Naples area in July. This took the form of an interruption in operations in the presence of a temporary grid configuration on the 220 kV grid as a result of work being carried out to set up a new 220 kV cable connection.

In 2009, as in 2008, the number and duration of interruptions without prior notice lasting over 3 minutes were slightly higher than the record lows of 2006 and 2007. The improvement seen in 2009 with respect to the previous year confirmed the clear trend since 2000, the year service continuity incentives for distribution companies were first introduced. The improvement in the indicators for all interruptions was about 60% for duration and 40% for number (Table 3.8).

A detailed analysis of the indicators for 2009, and especially the causes of outages, confirms the significant impact of exceptional weather events, as seen in 2008. The duration of interruptions without prior notice under the responsibility of distributors (that is, excluding the effects of exceptional weather conditions) per customer reached a historic low of 46 minutes at the national level. If we consider interruptions on the distribution and transmission networks (excluding "outstanding events" and backup operations), in 2009:

- the overall duration of outages per customer was 78 minutes;
- the duration of outages per customer under the responsibility of distributors (excluding the effects of exceptional weather conditions) was about 46 minutes at the national level, 30 in northern Italy, 41 in central Italy and 73 in the South;

- the total number of interruptions without prior notice by LV customer averaged out at 2.35 outages per customer.

Table 3.8 Electricity service continuity indicators (excluding outstanding events and back-up operations)

INDICATORS	2000	2001	2002	2003(A)	2004	2005	2006	2007	2008	2009
Outage duration per LV customer (minutes lost per customer)	187	149	115	105	91	80	61	58	88	78
Number of long outages per year per LV customer	3.6	3.1	2.8	2.8	2.5	2.4	2.3	2.2	2.4	2.4

(A) Excluding planned interruptions and black-outs

Source: AEEG.

Commercial quality regulation has been in force since 1 July 2000, with the application of nationwide standards defining the maximum time for the provision of services (connections, activations, disconnections, cost estimates, technical checks, replies to distribution and metering service complaints, etc.). These standards represent the minimum level of service that all suppliers are obliged to provide for their customers.

The guaranteed and overall quality standards defined by the Authority are intended to protect consumers and encourage improvements in service quality.

Clients applying for a service subject to guaranteed quality standards are informed by the service provider of the maximum waiting times and the automatic compensation envisaged if the standards are not met. At least once a year, distributors must send all customers subscribing to the enhanced protection service a statement of the guaranteed quality standards and the results actually achieved during the year. The statement is provided through the bill.

Each year, as part of its service quality survey, the Authority publishes the average time actually taken to provide a service, as declared by the distribution companies, as well as the standard control parameters (percentage of cases not complying with the standard for reasons attributable to the distributor, excluding cases of *force majeure* and third-party liability).

Automatic compensation for customers in the event of failure to comply with specific quality standards, due to shortcomings on the distributor's part (excluding cases caused by *force majeure*, third parties or customers themselves) were introduced in the second half of 2000. This led to an increase, until 2007, in the number of compensation payments to customers compared with the previous regime based on service charters. In 2009 the number of cases of failure to meet the specific performance standards resulted stable compared with 2008, which had seen a reversal of the previous year's trend. As a result, the number of compensation payments to customers, and the amount paid to each, also fell.

The data declared by distributors indicate that for nearly all types of service provided in 2009, with the exclusion of voltage and metering-unit checks, actual average service times were better than those of the standards. For most services the time required was about half that envisaged by the standard.

In general, the services that performed best in terms of reductions in the time required (e.g. activation and disconnection, re-activation after resolution of payment defaults),

benefited from the roll-out of electronic meters and remote control systems. For services linked to technical checks (checks of supply voltage and metering units), which required on-site work, higher average times were higher.

Balancing

With Resolution ARG/elt 214/09 of 29 December 2009, the Authority established periodic reviews of the dispatching conditions contained in resolution 111/06 and, from this year, also in the *Testo integrato del settlement* (TIS).The TIS follows the evolution of the domestic electricity market. More specifically, the Authority has defined a new value, of 1%, of the excess (exemption margin) within which the actual balancing of consumption units is evaluated at the day-ahead market price rather than the imbalance price. This excess was introduced when the electricity market was first being opened to the active participation of the demand side. It has subsequently supported the development of that same market as it becomes fully operational, at which point it will be cancelled.

With Consultation document DCO 27/09 of 27 July 2009, the Authority proposed to operators the option, for 2010, of calculating actual imbalances differentiated by unit of consumption. This would have enabled greater accountability in forecasting withdrawals for units consisting of outlets metered on an hourly basis, and would also have made it possible to maintain a substantial excess for points not metered at the hourly level. In view not least of the responses to the consultation, the Authority decided to maintain the transitional scheme throughout 2010. A single excess was therefore envisaged.

As regards the changes to the dispatching market introduced by the primary legislation, see the section on the structure of the electricity market. The new provisions for the dispatching of electricity injected into the grid from wind installations are described in the section on the Authority's activity in developing renewables, generated distribution and high-yield co-generation (3.2.1).

3.1.3 Effective unbundling

In 2009, the electricity distribution sector comprised 135 distributors, of which only 11 serve more than 100,000 customers and are consequently subject to unbundling as envisaged by the EU legislation. Of these distributors, 22 are affiliated with at least one wholesale or retail supplier, while 19 are do not engage in any sales activity.

With Resolution ARG/com 145/09 of 9 October 2009, the Authority opened the procedure for drawing up the necessary provisions to comply with the decisions of the Council of State in matters concerning administrative and accounting unbundling for enterprises operating in the electricity and gas sectors. The procedure, designed to supplement and amend Resolution 11/07 of 18 January 2007, was opened to consultation through Consultation document DCO 32/09 of 9 October 2009.

The proposals contained in the consultation document concerned:

- the need to establish that only personnel in senior management positions can fill positions in the independent operator, whose remit is the functional unbundling of network activities in the electricity and gas sectors;

- the elimination of the obligatory requirement for the independent operator to report to the Authority on decisions taken by vertically integrated companies;
- the elimination of functional unbundling obligations for metering activities;
- the introduction, envisaged also by European Directives 2003/54/EC and 2003/55/EC, of the possibility of establishing a "combined system operator". In the electricity sector this would include transmission and distribution and, in the gas sector, transport, regasification, storage and distribution;
- the possibility of allowing the joint operation, without any obligatory functional unbundling requirement, of electricity distribution and the distribution of natural and other types of gas, on condition that the functional unbundling of sales activity (including the sale of other types of gas) is guaranteed.

In addition, an amendment was proposed to the regulations laid down by Resolution 11/07 in order to implement the Regional Administrative Court (Italian abbreviation TAR) rulings which annulled resolution ARG/com 132/08 of 23 September 2008. Resolution ARG/com 132/08 had established the Guidelines for drawing up the procedures for functional unbundling by the independent operator.

Last year also saw work begin on collecting data on accounting unbundling for financial years 2007 and 2008, for operators in the electricity and gas sectors using remote systems, as envisaged by Authority resolution 11/07 of 18 January 2007. With resolution VIS 8/10 of 19 February 2010, the Authority instructed the many operators who had not yet submitted the data confirming their compliance with this requirement to send a specific notification explaining why they feel they are not obliged to provide these data.

3.2 Competition issues

3.2.1 Description of the wholesale electricity market

Coinciding with the slowdown in the Italian economy, demand for electricity saw a noticeable fall in 2009 with respect to 2008, to 320.3 TWh, down 5.7% on the previous year.

Peak power demand was reached in July, with 51.9 GW.

Net national power production declined by 8.5%, while net imports grew by 12.3% on the 2008 level.
Net thermoelectric production (including from biomass and waste) decreased by 13.6% in 2009 with respect to the previous year, to 216 TWh. Generation from natural gas fell considerably, by about 25 TWh to 143 TWh, a decline of 14.9%.

Hydroelectric power, on the other hand (from both natural and pumped sources), rose by 13.2% in 2009, to 52.8 TWh. Strong growth was also seen in wind power (which rose by 33.6% to 6.5 TWh) and photovoltaic energy (which reached 676 GWh in 2009, three and a half times its 2008 level).

The "foreign trade balance" was a 44,959 GWh. This can be broken down into imports of 47,071 GWh (up 8.4% on 2008), and exports of 2,111 GWh (a decline of 37.9%). This balance covered about 14% of the domestic requirement in 2009.

Table 3.9 Aggregate electricity balance in Italy, 2009

GWh

	2008	2009	CHANGE
Gross generation	319,130	292,642	-8.3%
Ancillary services	12,065	11,534	-4.4%
Net generation	307,065	281,107	-8.5%
Net Imports	43,432	47,071	8.4%
Net Exports	3,398	2,111	-37.9%
Energy for pumped storage	7,618	5,798	-23.9%
Energy available for consumption	339,481	320,268	-5.7%
Network losses	20,444	20,353	-0.4%
Consumption net of losses	319,037	299,915	-6.0%

Source: *Statistical data on electricity in Italy*, 2009, Terna.

The increase in imports in 2009 was linked to a strong increase in electricity from Slovenia (up 2,046 GWh) and Greece (up 2,013 GWh). Imports from France, by contrast, saw a significant reduction, of 8.1%.

Turning to exports, the decline in electricity flows mainly affected trade with Greece (which fell by 1,441 GWh).

In terms of net generated electricity, the market share of the Enel group declined from 31.4% in 2008 to 29.8% in 2009. Of the four main competitors, Edison (11.1%), Edipower (6.7%) and E.On (6.4%) all saw their market shares shrink to the advantage of other medium-sized and smaller producers. Eni (9.7%) saw its market share grow, by about one percentage point.

The Herfindahl-Hirschman Index (HHI) for net production shows a further reduction in market concentration, from 1,351 in 2008 to 1,240 in 2009.

Table 3.10 Wholesale market development

	REQUIREMENT (A) (TWh)	PEAK DEMAND (GW)	NET INSTALLED CAPACITY (GW)	NUMBER OF COMPANIES WITH A >5% SHARE IN NET GENERATION	% SHARE OF THE 3 LARGEST COMPANIES IN NET GENERATION
2001	304.8	52.0	76.2	4	70.7
2002	310.7	52.6	76.6	3	66.7
2003	320.7	53.4	78.2	4	65.9
2004	325.4	53.6	81.5	5	64.4
2005	330.4	55.0	85.5	5	59.4
2006	337.5	55.6	89.8	5	57.1
2007	339.9	56.8	93.6	5	54.7
2008	339.5	55.3	98.6	5	52.0
2009	320.3	51.9	101.4	5	50.6

(A) Net of electricity for pumped storage but before network losses.

Source: AEEG, from data supplied by Terna and producers.

Maximum net installed generating capacity at 31 December 2009 was equal to 101,447 MW, whereas net available capacity (for at least 50% of the time) was 86,914 MW.

Five company groupings held a market share of net installed capacity of over 5% in 2009: Enel (39.8%), Edipower (8.0%), Edison (7.7%), Eni (6.2%) and E.On (5.3%). The share held by the first three companies amounted to 55.6%. The Herfindahl-Hirschman Index (HHI) showed a significant reduction in market concentration for net installed capacity compared with 2008. The figure for 2009 was 1,819, as against 1,921 the previous year.

Turning to net available capacity (for at least 50% of the time), once again five company groupings held a market share of over 5%. These were Enel (42.6%), Edison group (8.7%), Edipower (8.3%), Eni (6.7%) and E.On (5.8%). In this case, the share held by the first three operators was 59.6%. The Herfindahl-Hirschman Index (HHI) for net available capacity was 2,089 in 2009, down from 2,242 in 2008.

Electricity market structure

Electricity trading for the purposes of better planning of generating and consumption units can be conducted through forward or spot contracts.

The regulated spot market (MPE), managed by the *Gestore dei mercati energetici* (GME), is divided into the Day-Ahead Market (MGP), where electricity is traded for the following day, and the Infra-Day Market (MI), in which operators can adjust their physical and commercial positions with respect to trading on the MGP.

The MI, set up through Law 2 of 28 January 2009, began operating in November 2009, replacing the Adjustment Market (MA). Law 2/2009 also reformed the Dispatching Services Market (MSD), where Terna (the Transmission System Operator – TSO) procures the resources required for providing transmission and dispatching services and for power system security.

Trading on the MI takes place between the close of the MGP and the opening of the MSD. It is divided into 2 implicit auctions, with different, successive, closing times. These allow operators to monitor the state of generating plants more closely and adjust their withdrawal programmes for the different consumption units.

Changes to the MSD came into force on 1 January 2010 in accordance with art. 5 of the Ministry for the Economy's decree of 29 April 2009. These envisage that the MSD will continue to be divided into two stages, a planning and a balancing (MB) stage. Other changes entail:

- the possibility, during each session, to specify a different price for each of the services offered (power reserve, congestion resolution and real-time balancing)
- the sub-division of the MB into 5 consecutive sessions on the day to which the offers refer. In the first session, the offers made by operators at the MSD planning stage are taken into consideration; in the following 4 sessions, the operators have the opportunity to adjust their positions on the market up to 90 minutes before the first trading hour.

To increase the flexibility of the system, the market structure was enhanced by developing forward electricity markets. The Forward Market Accounting Platform (PCE), which is designed to record bilateral contracts, began operating in May 2007. In November 2008 the GME also launched a trading platform in the electricity forward market (MTE), enabling physical quantities of electricity to be traded on a multilateral basis.

At the same time, Borsa Italiana inaugurated trading of electricity derivative financial instruments on the Italian Derivatives Electricity Exchange (IDEX). These are based on the average purchase price (National Single Price – PUN) and are monthly, quarterly and annual in duration.

With Resolution ARG/elt 203/08 of 23 December 2008, the Authority decided to lower the tolerance ceiling for imbalance penalties from the 3% applied in 2008 to 1.5%. This mechanism, designed to help operators in planning demand, is not compatible with the definitive market structure. It will eventually be removed, therefore, once the imbalance regulations are fully in force (see Balancing section, 3.1.2.)

Resolution ARG/elt 203/08 also established that, as of 2009, Terna can no longer submit supplementary offerings on the MGP, except in exceptional circumstances affecting the national electricity system.

As regards market participation, the number of operators listed on the GME rose with respect to 2008, reaching a new maximum of 161 (10 up on the previous year). This growth came mainly from companies bidding on the MGP, which now number 116. The number of operators enrolled in the market on both the demand and the supply sides is 92, following an increase of 7 sellers and one buyer with respect to 2008.

For the first time, participation in the MA saw a significant increase, of 16 operators, bringing the total to 53. This was a consequence of the opening of this market to demand with effect from 1 January 2009 and the introduction, on 1 November 2009, of a second session of the MA (renamed MI). This increase made up for the closure of the bilateral adjustment platform following the opening of the MA to the demand side and the slight reduction in the number of operators on the MSD (20 in 2009, compared with 22 operators on the MSD ex ante[1] and 21 on the MSD ex post[2] in 2008).

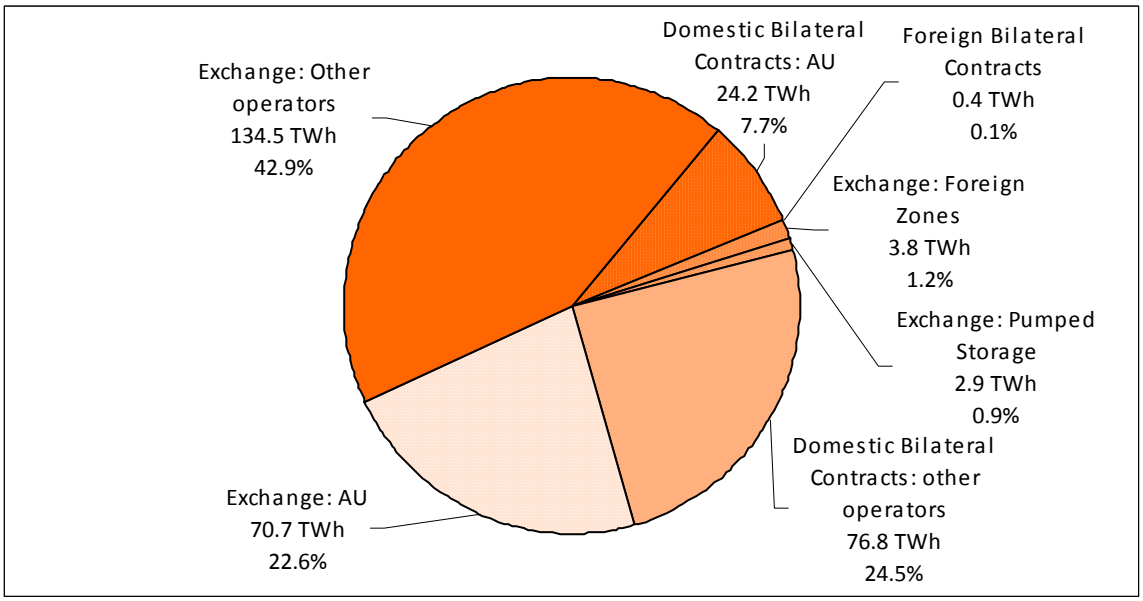
The Day-Ahead Market

Electricity demand in Italy amounted to 313.4 TWh in 2009, a fall of 6.7% on the previous year[3]. Domestic demand declined by 6.0%, with significant reductions at the regional level, most notably in the North and South macro-zones (with falls of 6.9% and 5.2% respectively). Electricity imports dropped from about 7.3 TWh in 2008 to 4.3 TWh in 2009. A sharp fall, therefore of 41.1%, in marked contrast with the 91.3% rise seen 2008.

[1] Programmed offerings designed to resolve congestions and create an adequate reserve margin are presented on the *ex ante* MSD.
[2] On the *ex post* MSD, offerings are presented in real time for injection/withdrawal balancing purposes.
[3] To take into account the higher number of hours in 2008 (a Leap Year), the percentage change calculations were based on average annual values.

The decline in demand, which began in the last quarter of 2008 with the worsening of the international economic crisis, persisted throughout 2009 and reached its lowest point – down 12.0% – in June.

Figure 3.2 Percentage breakdown of electricity demand in 2009



Source: AEEG, from GME data.

Operations on the Power Exchange totalled 213.0 TWh, a decrease of 8.2% on 2008. This took market liquidity to 68%, a modest fall on the 2008 figure of 69%. Measured solely on trading on the exchange free from legislative constraints (net, therefore, of electricity from CIP6[4] plants), market liquidity was 53.5%.

As a result of the progressive contraction of the captive market and the complete liberalisation of sales, purchase offers by the Single Buyer (AU) were further reduced by 10.8% on the previous year. Demand from other operators declined to a lesser extent: from 137.9 TWh in 2008 to 134.5 TWh in 2009, a decrease of 2.2%.

Demand underlying bilateral contracts decreased by 3.5% on the previous year, to 100.4 TWh. This reduction chiefly affected foreign bilateral contracts, which fell by 21.8% on 2008 and, to a lesser extent, bilateral contracts entered into by domestic companies other than the AU, which saw a decline of 8.6%. This fall was partly offset by the increase in bilateral contracts concluded by the AU, which rose by 24.7% on the previous year.

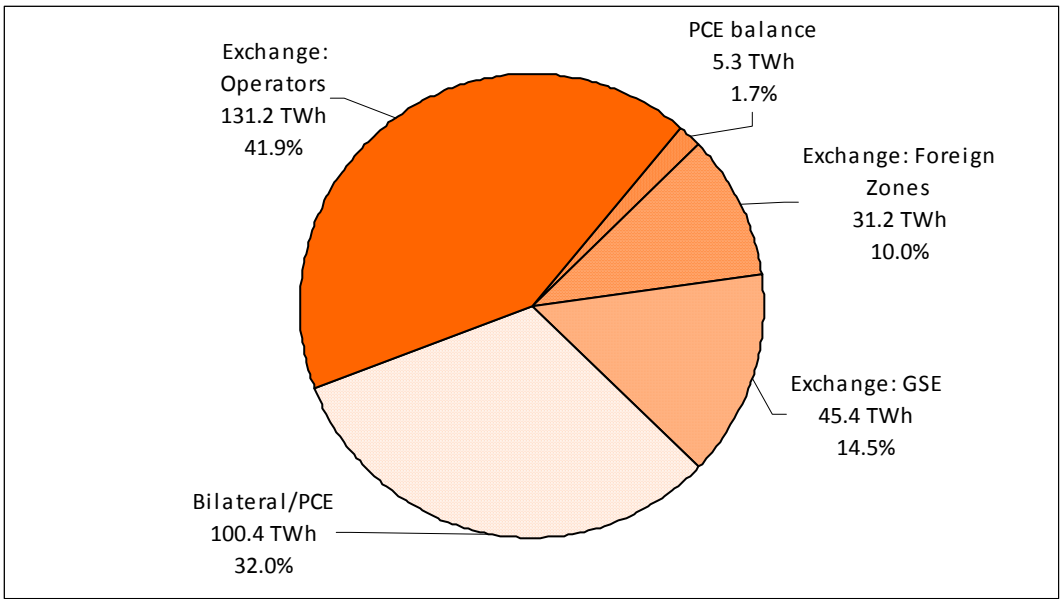
Volumes offered on the Exchange by domestic companies fell by 10.8% compared to 2008, to 131.2 TWh. To this should be added the 4.9% fall in offers by the GSE[5], which amounted to 45.4 TWh. Sales offers from foreign operators increased significantly (by 43.7%), to 31.2 TWh.

[4] Electricity generation plants fed by renewable or assimilated sources for which economic incentives are envisaged under Law 9 of 9 January 1991.

[5] The *Gestore dei servizi energetici Spa* (GSE) is a publicly owned company (Ministry of the Economy) which promotes, provides incentives for and develops renewables in Italy. It holds a 100% share in the *Acquirente Unico* (AU) and the *Gestore dei mercati energetici* (GME).

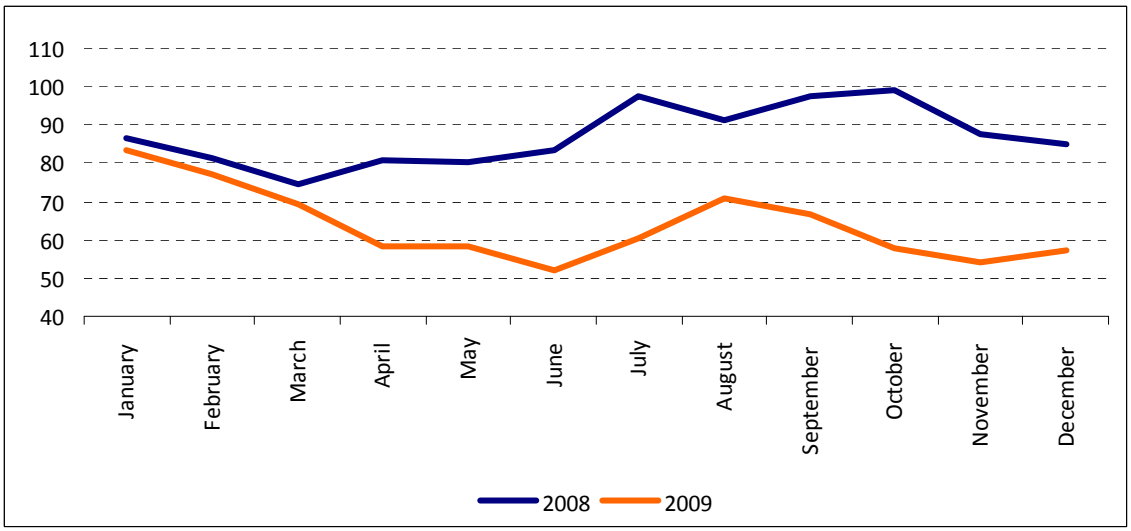
The balance of PCE[6] schedules was equal to 5.3 TWh, a significant decline (of 33.4%) from the previous year.

Figure 3.3 Percentage Breakdown of electricity sales offers in 2009



Source: AEEG, from GME data.

Figure 3.4 Single National Price (PUN) movements in 2009



€/MWh

Source: AEEG, from GME data.

[6] The Forward Market Accounting Platform (PCE) is the platform on which bilateral contracts are recorded. In general, each operator has one or more power delivery accounts (CEI) and one or more power withdrawal accounts (CEP) on each of which they may record purchases and sales. The registration of sales and purchases change the net position of each account for each operator. Injection/withdrawal programmes must by definition be equal to or less than the balance. In the event of a CEI, a programme lower than the balance (so-called PCE programme balance) constitutes a re-purchase at the Single National Price (PUN) on the day-ahead market (MGP). In the event of a CEP, it constitutes a sale at PUN on the MGP.

The average purchase price (PUN) in the Italian power exchange in 2009 was 63.72 €/MWh, 23.27 €/MWh (26,8%) lower than in 2008. This fall is related to the drastic contraction in demand coupled with the significant reduction in variable generation costs, in turn a result of the decline in international fuel prices. The average monthly PUN reached its lowest level (51.82 €/MWh) in June.

The HHI concentration index, calculated at zone level and on the basis of actual electricity sales and sales offerings (accepted or not), confirms the progressive improvement in the competitive environment in the North macro-zone. Obstacles to the development of fully competitive conditions persist in the zones of Sicily and Sardinia, where the HHI index never falls below 1,800.

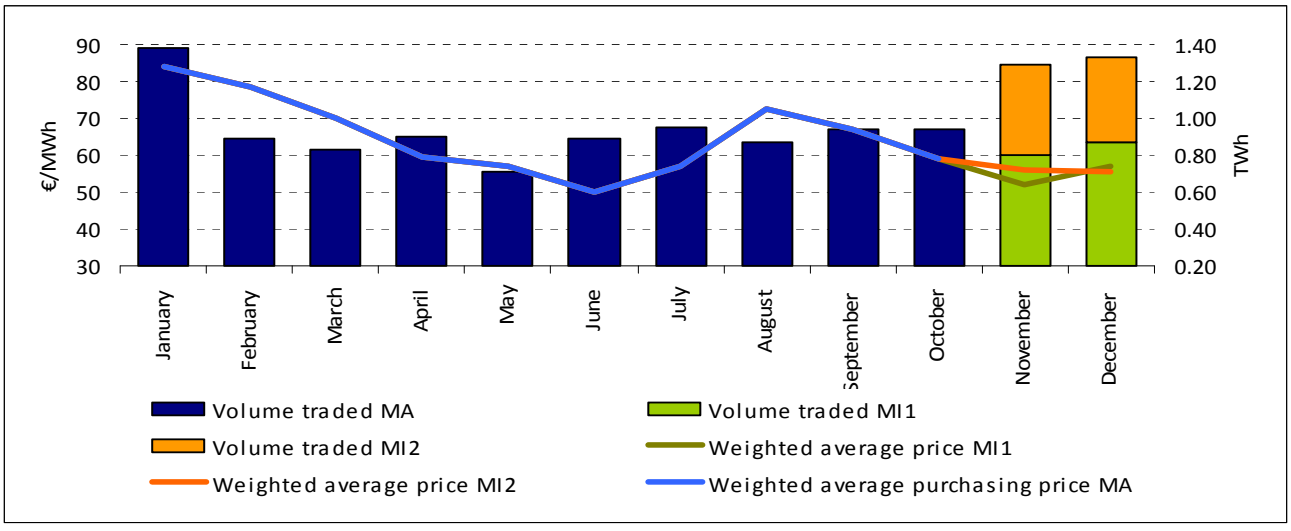
The marginal market participant index[7] for ENEL signalled an improvement in competitive conditions. Indeed, the percentage of total volumes traded for which ENEL, the incumbent, set the price fell from an average level of 51% in 2008 to 27% in 2009. For most months of 2009 (with the exception of April and August) the figure was lower than 35%, as was the case in the last quarter of 2008.

Adjustment Market and Infra-Day Market

Electricity trading volumes on the Adjustment Market (until October 31 2009) and on the Infra-Day Market (November and December) totalled 11.9 TWh, 2.7% up on the previous year. The weighted average purchasing price was 66.44 €/MWh on the MA, and 54.66 €/MWh and 55.69 €/MWh respectively during the two trading sessions (MI1 and MI2) of the MI. In 2008, the weighted average purchasing price on the MA was 84.95 €/MWh.

Figure 3.5 Average prices and volumes traded on the MA and MI in 2009

€/MWh; TWh



Source: AEEG, from GME data.

[7] Index relating to individual operators who have set the sales price at least once. For each operator, in each of the time-periods and each macro-zone considered, it is defined as the portion of volumes of which it set the price. In other words, it is the relationship between the sum of the amounts sold (including bilateral contracts) in the geographical zones within the macro-zone on which the operator set the price, and the sum of the overall amounts sold in the macro-zone.

The dispatching services market

Ex ante step-up purchases on the MSD amounted to 12.5 TWh in 2008, an increase of 8.4% on the previous year. Step-down quantities sold *ex ante* were equal to 14.6 TWh, up 30.4% on 2008 – a marked reversal of the downwards trend of the previous two years. These volumes represented 4.0% and 4.7% of the total volumes traded on the MGP.

Ex post step-up purchases by Terna in 2009 amounted to 7.8 TWh, a decrease of 19.0% on the previous year. These purchases accounted for 2.5% of volumes traded in the MGP. In the *ex post* step-down MSD, Terna sold 10.5 TWh, 7.3% less than in 2008 and 3.4% of the volumes traded in the MGP.

Exchange trading and bilateral contracts

2009 saw a reduction with respect to 2008 in the energy sold on the Exchange in terms both of volumes and percentage share of total trading. At the same time, electricity traded through bilateral contracts on the MGP, while falling in absolute terms by nearly 4 TWh, increased as a percentage of total trading, from 31.0% in 2008 to 32.0% in 2009.

Table 3.11 Electricity market

TWh

YEAR	MGP TRADING ON THE MGP		
	Total	*Of which in the Power Exchange*	*Of which through bilateral contracts*
2002	-	-	-
2003	-	-	-
2004	231.6	*67.3*	*164.3*
2005	323.2	*203.0*	*120.2*
2006	329.8	*196.5*	*133.3*
2007	330.0	*221.3*	*108.7*
2008	337.0	*232.6*	*104.3*
2009	313.4	*213.0*	*100.4*

Source: AEEG, from GME data.

The reduction in electricity traded through bilateral contracts is essentially due to a decrease in the volumes traded between domestic traders other than the AU. The decrease, however, was partly offset by the increase in bilateral trading by the AU.

Table 3.12 Bilateral Contracts in the MGP in 2009

TWh

CONTRACTS	2009	2008
Bilateral contracts	100.4	104.3
Domestic	101.1	103.8
of which by the Single Buyer	*24.2*	*19.5*
of which by other operators	*76.8*	*84.3*
Foreign	0.4	0.6
Balance PCE programmes	-1.1	-0,1

Source: AEEG, from GME data.

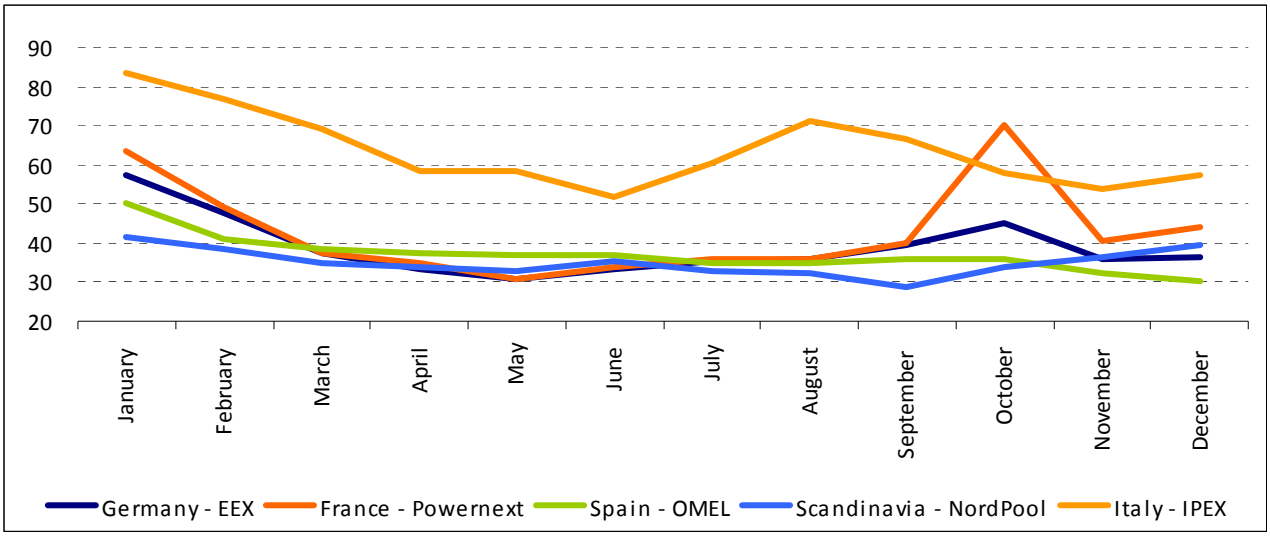
Integration of the Italian market with other European markets

2009 saw a sharp fall in prices on the European power exchanges, with price levels – after the significant rise in 2008 – returning to levels similar to or lower than those of 2007.

This Europe-wide fall of between 21% and 43%was sharpest in Spain and Central Europe, which had seen more marked increases in 2008. As an effect of these movements, prices on the Omel (36.96 €/MWh), EEX (38.95 €/MWh) and Powernext (43.01 €/MWh) exchanges reconverged on those of NordPool (35.02 €/MWh). Once again, Ipex was the exchange with the highest prices (63.72 €/MWh).

Figure 3.6 Monthly average price trends for electricity in the main European power exchanges in 2009

Average monthly baseload prices; €/MWh



Source: AEEG, from figures supplied by the European Power Exchange.

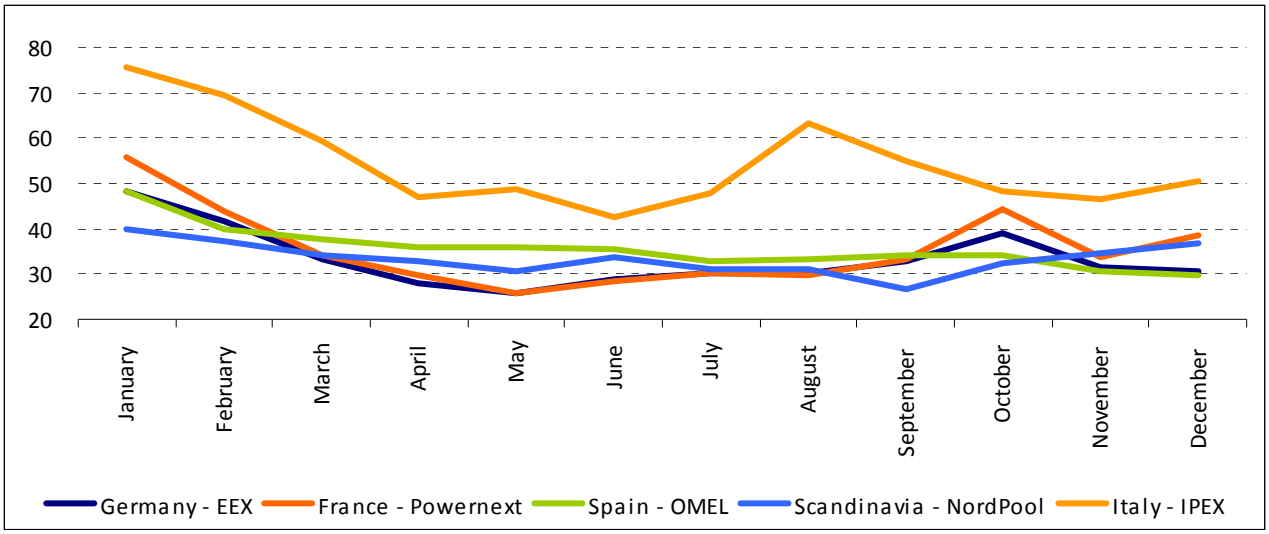
The pace of the price contraction in the first half of 2009 differed between Italy and other countries. As the international macro-economic picture worsened and demand for electricity fell as a result, prices in other European countries adjusted almost immediately. In Italy, however, the fall in prices was much slower and more gradual. During the summer months the trend reversed, with Italian prices rising with the economic cycle and prices on the foreign exchanges continuing to fall, thus increasing the price differentials and favouring increasing electricity imports to Italy.

The price differential between Italy and other countries began to narrow in September. Prices in the French market saw a modest increase that month and peaked in October, as a result of unexpected shut-downs at French nuclear power stations. October's baseload price reached 70.1 €/MWh, 12.46 €/MWh higher than the IPEX price. This movement generated "time windows" in which Italian producers exported electricity to France. In November, French prices saw a marked fall, returning to below IPEX price levels.

The total differential between IPEX and the other main European exchanges was 23.8 €/MWh in 2009, 3.4 €/MWh higher than the previous year.

Figure 3.7 Monthly average offpeak price trends for electricity in the main European power exchanges in 2009

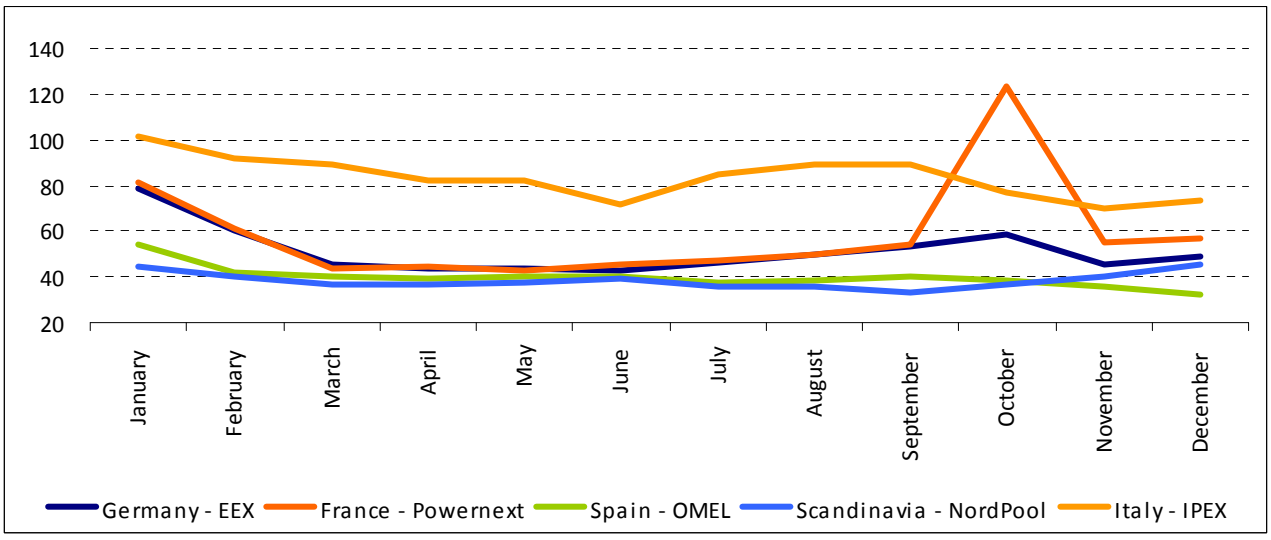
€/MWh



Source: AEEG, from figures supplied by the European Power Exchange.

Figure 3.8 Monthly average peak price trends for electricity in the main European power exchanges in 2009

€/MWh



Source: AEEG, from figures supplied by the European Power Exchange.

The differential between peak and off-peak prices on the Italian Power Exchange is fairly marked. The average prices in 2009 at peak and off-peak times[8] were 83.46 €/MWh and 54.47 €/MWh respectively. In the other European exchanges lower average prices are generally coupled with a lower differential between peak and off-peak prices. The average

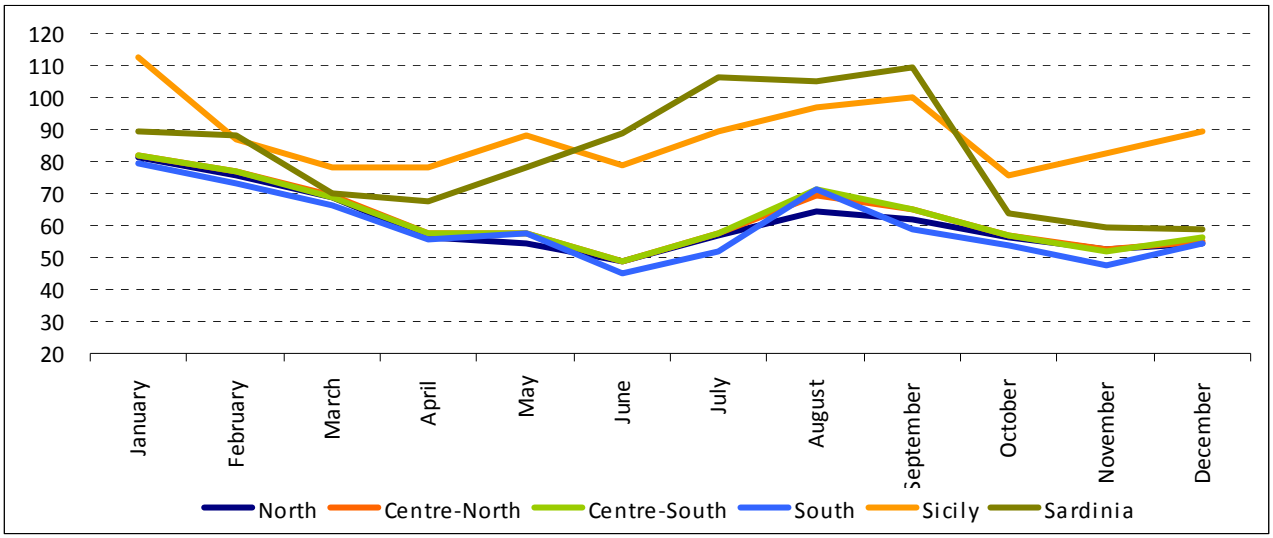
[8] Prices are calculated for all Exchanges on the basis of the hourly bands adopted by the Authority to differentiate electricity values. The average peak price is calculated from the values recorded during the hours corresponding to band F1, and the off-peak price from the remaining hours of the year (bands F2 and F3).

peakload and offpeak prices were 51.13 €/MWh and 33.25 €/MWh respectively on the German exchange, 58.86 €/MWh and 35.59 €/MWh on the French, 39.82 €/MWh and 35.62 €/MWh on the Spanish, and 38.50 €/MWh and 33.39 €/MWh on the Scandinavian exchange.

As regards zone-level prices on the Italian Exchange, for the first time since the Exchange was set up the lowest price, of 59.49 €/MWh, was found in the Southern Zone. In the other zones of mainland Italy the price was just over 60 €/MWh. Sales prices in the two islands were significantly higher, at 82,01 €/MWh in Sardinia and 88.09 €/MWh in Sicily, although the latter partly reduced its price differential with other zones with respect to 2008. An analysis at the monthly level reveals a substantial price reduction in all zones. Exceptions to this were the islands in the summer months, when the reduction in the volumes on offer, coupled with steady demand, created the conditions for greater concentration on the supply side.

Figure 3.9 Monthly price trends within Italian zones in 2009

€/MWh



Source: AEEG, from GME data.

The Forward Market Accounting Platform (PCE)

The PCE is the platform for recording bilateral contracts, on which traders may register quantity and period of delivery of forward contracts two months in advance of physical delivery.

In general, each operator has one or more power delivery accounts and one or more power withdrawal accounts on each of which they may record purchases and sales on condition that the resulting net balance, against each new transaction recorded, is a net sale in the former case and a net purchase in the latter. The balance determines the quantity of electricity that can be delivered/withdrawn or sold/purchased in the MGP.

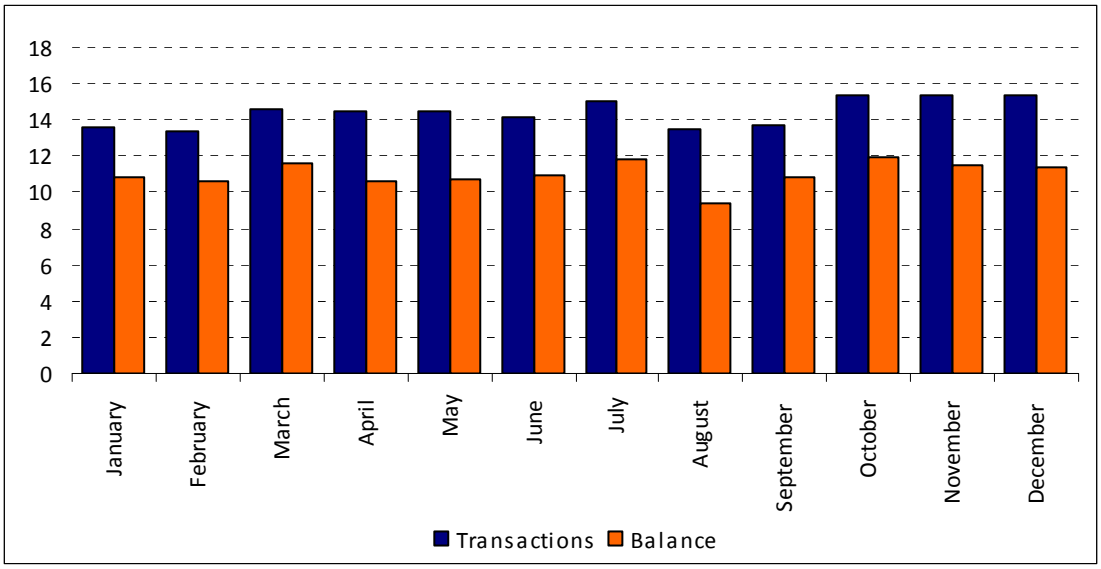
Total transactions recorded in the PCE, with delivery and withdrawal in 2009, amounted to 173.0 TWh (13.8% higher than in 2008). Most of the contracts registered by operators were

non-standard (67.8% of the total), an increase of 15.9% with respect to 2008. The most commonly used of the standard contracts was the baseload (21.0% of the total, a rise of 18.5%). Peak contracts fell by 7.7%.

The transactions registered in the PCE resulted in a net position of 131.1 TWh for operators' power accounts, an increase of 7.8% on 2008.

Figure 3.10 Transactions on the PCE in 2009

TWh



Source: AEEG, from GME data.

The forward markets: MTE and IDEX

The Electricity Forward Market (MTE) and the Italian Derivatives Energy Exchange (IDEX) are the two regulated forward markets managed by GME and Borsa Italiana respectively. Both were launched in November 2008 with the aim of allowing operators to manage their energy portfolios more flexibly.

Following the reform of the rules governing the electricity market under Law 2/2009, since November 2009 it has been possible to trade electricity over a timescale of up to one year on the MTE, with obligatory delivery at the end of that period. Monthly, quarterly and annual delivery periods can also be negotiated. Quarterly and annual contracts are regulated by a cascading mechanism, and monthly contracts by registering the electricity underlying the contract on the PCE.

Volumes traded on the MTE in 2009 amounted to 124.8 GWh, and those delivered over the year to 81.0 GWh.

The IDEX is the segment of the Italian Stock Exchange's derivatives market for the trading of financial futures contracts based on electricity with the PUN as reference price. Contracts can be baseload and have monthly, quarterly and annual delivery periods. The operation of the market envisages the presence of the Borsa Italiana group's clearing house, the *Cassa di*

compensazione e garanzia, to which members of the market must belong and which acts as a central counterparty.

In 2009, total volumes traded on the IDEX amounted to about 15.8 TWh.

On 26 November 2009 the integration of the physical electricity forward market (MTE) and the regulated market for electricity derivates, the Italian Derivatives Energy Exchange, became operational.

GME and Borsa Italiana have set up a physical delivery option for delivery contracts on the IDEX market. This allows operators authorised to operate on the two platforms to choose, when their last monthly contract expires, whether to regulate their IDEX position through a cash settlement or by transferring their position to the physical delivery platform for financial contracts agreed on the IDEX (Electricity derivatives delivery – CDE). This platform sits alongside the MPE and MTE and enables operators to transfer open positions on the IDEX market by opening a position in which the counterparty is the GME itself.

This mechanism is designed to increase the appeal of regulated electricity markets, where prices are formed on the basis of transparent mechanisms and the satisfactory outcome of contracts is guaranteed by the existence of a central counterparty. This lays the foundations for increased liquidity and reduces risk levels, even over extended timescales.

Mergers and acquisitions in the electricity sector in 2009

Of the significant operations in the electricity distribution sector in 2009, the merger by acquisition of Asm Brescia S.p.A. by Aem Distribuzione Energia Elettrica, on 1 April, is worthy of note. The operation led to the creation of A2A Reti Elettriche, which operates in Milan and Brescia Provinces.

Other key acquisitions include:

- Credit Agricole Private Equity's acquisition of 27% of the share capital of Elettrostudio Energia, an Italian renewable energy producer;
- the acquisition by SEA, the company that operates Milan's airports, of A2A's 49% holding in Malpensa Energia, the company that holds the sub-concession to operate the co-generation plants for Linate and Malpensa airports and is now fully controlled by SEA;
- Kinexia's acquisition, through its subsidiary Volteo Energie – a subholding in the renewables sector – of 48.05% of the capital of Miro Radici Energia, a company which builds liquid biomass plants, from Miro Radici Finance

Activity of the Authority in the fields of renewable resources, distributed generation and high-yield cogeneration

In 2009 and the early months of 2010, the Authority issued numerous provisions concerning renewable energy, most notably regarding the early cessation of the CIP6 agreements and the definition of the reference prices for green certificates. The Authority also reviewed the electricity production code, *Testo unico ricognitivo della produzione elettrica*, and the rules governing spot trading (*Scambio sul posto*). The Authority also passed resolutions regarding the dispatching service for electricity injected into the grid from unpredictable renewable energy sources.

CIP6 electricity is electricity produced by plants fed by renewable or assimilable sources that enjoy special incentives under Law 9 of 9 January 1991. Art. 30 (20) of Law 99/2009 provided for the Authority to propose appropriate mechanisms to the Ministry for Economic Development for the early cessation of CIP6 agreements with producers who voluntarily subscribed to such mechanisms. Any costs to be paid to producers as a result of the early cessation of the agreements would have to be lower than those that would have arisen if the agreements had not been ended.

With Resolution PAS 22/09 of 27 November 2009, the Authority drew up its proposal for submission to the Minister for Economic Development. Using the Authority's proposal as a starting point, the Minister's Decree of 2 December 2009 defined the sums to be paid to holders of CIP6 agreements in the event of early cessation. The Decree distinguishes between plants using process or residual fuels or energy recovery, and plants using fossil fuels.

Again on the subject of CIP6 electricity, and in accordance with Law 1999/2009, in Resolution PAS 16/09 the Authority set out its proposal for the Minister for Economic Development concerning the payment on account of the avoided fuel cost (CEC) – a component of the sales prices of energy produced under the incentive scheme – for the fourth quarter of 2009. The Minister for Economic Development implemented the Authority's proposal though its decree of 30 September 2009.

As regards the green certificates market, with resolution ARG/elt 3/10 of 25 January 2010 the Authority defined the average annual value of the wholesale electricity price, as required to quantify the reference price for green certificates.

For the years following 2008, under ARG/elt 24/08 of 26 February 2008 the average annual wholesale electricity price for use in defining the value of green certificates is equal to the arithmetic mean, at the national level, of the hourly zone-based prices allowed during the previous year for electricity produced from renewable sources transferring electricity under the terms of resolution 280/07 of 6 November 2007.

The average wholesale electricity price for 2009 was 67.18 €/MWh. The reference price for green certificates for 2010, calculated as the difference between 180 €/MWh and the above-mentioned price, is 112.82 €/MWh. This contrasts with a reference price of 88.66 €/MWh for green certificates in 2009.

In the course of 2009 the Authority also up-dated the *Testo unico ricognitivo della produzione elettrica* (Electricity Production Code), which brings together in a single document all the rules governing electricity production, with particular reference to renewable sources and high-yield co-generation. The Authority's aim with this text was to provide a

comprehensive tool for operators in the sector and provide them with an up-to-date explanatory guide to the current market context for distributed generation plants.

As regards spot trading[9], art. 27, paragraphs 4 and 5, of Law 99/2009 sets forth the rules for plants owned by the Ministry of Defence and by municipalities with a population of up to 20,000 residents. In both cases, the provisions apply to plants with power up to but not exceeding 200 kW and in the latter, to those producing power for consumption by their own users. In using the local trading service the plants concerned may disregard the obligatory requirement that the points where the electricity is injected to and withdrawn from the grid should coincide, without prejudice to the payment of network costs.

With Resolution ARG/elt 186/09 of 9 December 2009, the Authority implemented the provisions of Law 99/2009, amending resolution ARG/elt 74/08 of 3 June 2008.

Also noteworthy is the publication by the Authority of Resolution ARG/elt 5/10 of 25 January 2010. This defines competitive procedures for the remuneration of the costs incurred by wind plant operators when voluntarily up-grading their plants to supply one or more network services.

Also through resolution ARG/elt 5/10, the Authority defined new remuneration arrangements for non-production by wind plants resulting from any reductions in electricity generation imposed by Terna to ensure the security of the electricity system. The amount of the shortfall is calculated using the estimates drawn up by the GSE on the basis of actual wind data, measured *in situ*, at the times when the reduction in electricity generation is requested. A model simulating the operation of the wind plants concerned is also used. The formula for the calculation of energy not produced includes a reliability index; this will need to be defined by Terna, taking into account the degree of reliability of dispatching service users in complying with the dispatching orders issued by Terni.

Resolution ARG/elt 5/10 also introduced new incentives for the planning of production units with power more than or equal to 10 MVA fed by unpredictable renewable sources.

Finally, a number of provisions concerning Terna are envisaged to improve the dispatching service, taking into account the electricity injection forecasts made by the GSE in accordance with resolution ARG/elt 4/10 of 25 January 2010. These apply to plants producing less than 10 MVA, fed by unpredictable renewable courses and acquiring real-time data via satellite on source availability and resulting production potential.

3.2.2 Description of the retail electricity market

According to the figures published by Terna, retail electricity sales in 2009 amounted to about 282 TWh. Consumption, including self-consumption, totalled about 300 TWh. Table 3.13 gives a breakdown of consumption by sector of use.

[9] The spot trading service is a specific form of self-consumption *in situ* that enables operators to offset, in economic terms, the value of the electricity withdrawn and consumed in the grid at a given time with the electricity generated and injected to the grid at a different time from that of the withdrawal.

Table 3.13 Breakdown of national consumption by sector in 2009

TWh

SECTOR	2008	2009	VARIAZ. %
Industry	151.4	130.5	-13.8%
Services	93.6	94.8	1.3%
Residential	68.4	68.9	0.8%
Agriculture	5.7	5.6	-0.3%
Total	319.0	299.9	-6.0%

Source: *Statistical data on electricity in Italy*, 2009, Terna.

Table 3.14 shows the overall sales and the number of customers (taken as being approximately equal to the number of withdrawal points). These are broken down by market type, based on the data collected by the Authority from all electricity operators: producers; providers of protected tariff and safeguard services; wholesalers and retail suppliers.

Table 3.14 Retail sales market in 2009

Net of self-consumption and losses

	VOLUME (GWh)	WITHDRAWAL POINTS (thousands)(A)
Protected-tariff service	84,065	31,637
Safeguard service	7,225	130
Liberalised market (B)	179,942	4,266
Total Market	271,233	36,033

(A) Withdrawal points are calculated on a days-of-use basis
(B) The data for the liberalised market are provisional, covering about 91% of the total volumes sold on that market. The definitive figures published by Terna put overall consumption (net of self-consumption and losses) at 282 TWh, of which 197.9 TWh sold on the free market (including the safeguard service).

Source: AEEG, from data provided by operators.

The enhanced protection service is intended for low-voltage domestic customers and small businesses which have not entered into supply contracts in the liberalised market. The service is provided by specific retailers or distributors with fewer than 100,000 customers connected to their grid, under price and commercial quality conditions defined by the Authority. In 2009, 147 operators were providing the enhanced protection service, of which 121 were also electricity distributors

Sales to enhanced protection service customers in 2009 amounted to around 84 TWh for a total of over 31 million withdrawal points, a reduction of 6% on 2008. About 68% of the volumes sold (around 57 TWh) was purchased by residential users, who in numerical terms account for some 84% of the total enhanced protection market, which numbers about 26 million users.

All customers not eligible for access to the enhanced protection service and either permanently or temporarily without an electricity supply contract in the liberalised market are eligible for the safeguard service. Since 1 May 2008 the service has been provided by suppliers selected by auction.

In 2009 the safeguard service was provided to about 130,000 customers, as measured by number of withdrawal points and calculated using the days-of-use criterion, for a total electricity consumption of about 7.2 TWh. Around 5.7% of electricity sales were for public lighting and the remainder for industrial and commercial uses, with a prevalence of medium-voltage connections (65% of the total).

Sales on the liberalised market in 2009, calculated from Terna statistics net of sales under the safeguard-provision, amounted to 191 TWh, corresponding to a 2.4% reduction on the 2008 level. Table 3.15 shows the data collected by the Authority, broken down by customer type: 95% of volumes, corresponding to over 2 million withdrawal points (53% of the total), were for "other uses" (i.e., other than residential use and public lighting).

Table 3.15 Liberalised market by type of customer

2009(A)

TYPE OF CUSTOMER	VOLUMES (GWh)	NUMBER OF WITHDRAWAL POINTS (thousands) (B)
LV	50,913	4,184
Residential	5,089	1,828
Public lighting	4,279	187
Other uses	41,545	2,169
MV	89,419	82
Public lighting	324	1
Other uses	89,095	81
HV and VHV	39,610	1
Other uses	39,610	1
TOTAL FREE MARKET	179,942	4,266

(A) The data are provisional and cover about 91% of overall volumes in this segment.
(B) Withdrawal points are calculated using the days-of-use criterion.

Source: AEEG, from data provided by operators.

Enel Servizio Elettrico (part of the Enel group) is still the main supplier of the enhanced protection service, with a market share of about 84%. Next come AceaElectrabel Elettricità (5.3%), A2A Energia (3.2%) and Iride Mercato (1.4%). Other suppliers have shares of less than 1%.

The liberalised market has a lower degree of concentration than that of the enhanced protection service. Indeed, in 2009 the aggregate share held by the three main operators was 45.3%, of which 26.8% supplied by the leading operator, ENEL.

For the retail market as a whole, two groups reached a market share greater than 5% in 2009: Enel (45.9%) and Edison (8.0%). Table 3.16 provides a breakdown by voltage level.

Table 3.16 Retail market: market shares held by the thee main operators, by voltage level

VOLTAGE LEVEL	NO. OPERATORS WITH A SHARE > 5%	AGGREGATE SHARE HELD BY FIRST 3 GROUPS
Low voltage (domestic users and small businesses)	1	77%
Medium voltage	4	37%
High and very high voltage	6	63%
Total	2	59%

Source: AEEG, from data provided by operators.

In 2009, the Authority continued in its endeavour to provide increased, and increasing, protection to consumers and users in both the electricity and gas markets. Its regulatory provisions, described in greater detail in Section 6 below, helped strengthen consumers' ability to make informed choices from among the variety of offers available in the market. They also served to reduce information imbalances which, given the specific features and characteristics of the services offered, could otherwise prevent consumers from taking full advantage of the opportunities arising from the opening of the market to competition.

Complaints and notifications

The number of complaints, appeals and other communications from both individual customers and consumer associations increased by 51% in 2009. This confirmed the trend seen in previous years, albeit at a slightly lower rate of increase.

In the period between 1 April 2009 and 31 March 2010, out of a total of 16,791 communications sent to the Authority, 11,143 (or 67%) concerned the electricity sector. The number of communications in that sector alone increased by 55% with respect to 2008. In line with the previous year, complaints accounted for 94% of all communications, enquiries for 5%, and appeals and other notifications for the remaining 1%.

About 53% of the complaints relating to the electricity sector regarded suppliers operating exclusively in the liberalised market. This is not unusual in the early stages of market opening, and has also been observed in other countries opening their retail segment to competition.

Communications received by the Authority mainly concerned the following issues: billing (31,9%); the market (24.8%); the application of contractual clauses in both the liberalised market and the protected-tariff service, and commercial quality (13.4%); connections (7.3%); disconnections for payment defaults (6.1%); and prices and tariffs (5.5%). A number of residual problems were also mentioned, including: continuity of the electricity service (outages), voltage quality and metering.

In the case of billing, the main complaints concerned: invoicing of consumption in advance (on account) by sellers; failure to take meter readings and self-readings into account; mixed bills; top-up bills; requests for corrections; timing of bills.

Table 3.17 Topics of communications received by the Authority over the last two years

TOPICS	APRIL 2008 – MARCH 2009		APRIL 2009 – MARCH 2010	
	No.	%	No.	%
Power outages and voltage (technical quality)	322	5.0	419	3.8
Connections	522	8.2	811	7.3
Billing	2,303	36.4	3,554	31.9
Contracts and commercial quality	1,239	19.6	1,496	13.4
Metering	24	0.4	187	1.7
Prices and tariffs	135	2.1	614	5.5
Market	1,090	17.2	2,670	24.8
Disconnections	267	4.2	679	6.1

Source: AEEG calculations using own data.

Communications on market-related issues mainly concerned: arrangements for entering into contracts; supplier switching; the way suppliers present their offerings; double billing; compliance with the Code of Commercial Conduct. Complaints and reports concerning prices and tariffs focused on the correct application of two-tier prices; the liberalised market; distribution tariffs; and the social tariff.

As regards contracts and commercial quality, complaints mainly concerned: contractual changes such as transfers; exercising the right to withdrawal; deposits; default and arrears; disconnections and subsequent reconnection times; and automatic refunds.

The registration, classification and subsequent assessment of complaints and appeals provide an important pool of valuable information on the problems most frequently encountered in delivering the service. They also make it possible to identify the areas on which additional regulatory and/or supervisory actions are needed.

The analysis of problems relating to clients switching to the liberalised market makes it possible to identify the most critical areas for which improvements or adjustments to the existing regulation and/or the introduction of new rules are needed to ensure that the markets function efficiently.

3.2.3 Measures to avoid abuses of dominance

In 2006, the Authority introduced the possibility of drawing up contracts for the transfer of "virtual generating capacity" (virtual power plants or VPPs) in the electricity market. Under these contracts, predefined quantities of the electricity produced by "pivotal" operators can be transferred to third parties not connected with the dominant operator at prices determined by an open competitive procedure. This instrument was accepted by the Antitrust Authority as a compensatory measure proposed by ENEL in the context of the investigation into abuse of dominant position in the power exchange in 2006. It was then adopted through Law 99 of 23 July 2009, with reference to Sardinia Region.

Authority Resolution ARG/elt 115/09 of 17 August 2009 required ENEL and E.On, the two main producers in Sardinia, to make sufficient power to satisfy at least 25% of the island's electricity requirement available to counterparties selected by tender procedures. In detail, the amounts concerned were 225 MW for ENEL and 150 MW for the German group. With Resolution ARG/elt 150/09 of 16 October 2009, the Authority approved the reserve prices proposed by ENEL and E.On with respect to the competitive procedures for the transfer of virtual generating capacity for 2010 and for the five-year period 2010-14.

At the same time, with Resolution ARG/elt 52/09 of 29 April 2009 the Authority introduced the new rules governing essential plants (i.e., those owned by one same producer and without which Terna cannot guarantee that demand is met securely). These rules, the effects of which should begin to be seen in 2010, will make it possible to resolve many of the problems deriving from the high concentration of supply in the MSD.

The new rules adopted by the Authority introduce mechanisms to minimise burdens on the system and ensure a fair remuneration for producers. They envisage, *inter alia*, the possibility for producers to choose between different forms of regulation. As it happens, nearly all the producers affected by the rules governing essential plants have opted for the form of regulation envisaging the contractualisation of the essential generating capacity at their disposal. The contract is drawn up by Terna under conditions laid down by the Authority (with reference to the typical costs of a turbogas thermoelectric plant). The fact that the main operators have adopted the scheme has enabled Terna to contractualise about 1,900 MW of the step-up power reserve and just under 500 MW of the step-down reserve, with different hourly usage commitment profiles.

4 REGULATION AND PERFORMANCE OF THE NATURAL GAS MARKET

4.1 Regulation

4.1.1 Management and allocation of interconnection capacity and mechanisms to deal with congestion

Table 4.1 shows the results of the firm transport capacity allocation carried out at the start of thermal year 2009-10.

Table 4.1 Firm transport capacity in Italy in thermal year 2009-10

M(m³) standard per day, unless otherwise stated; thermal year 2009-10

ENTRY POINT TO THE NATIONAL NETWORK	VALUES AT THE BEGINNING OF THERMAL YEAR				VALUES AT 30/06/2010	
	ALLOCABLE	ALLOCATED	AVAILABLE	SATURATION	ALLOCATED	SATURATION
Passo Gries					59.0	100.0%
Tarvisio	107.0	96.9	10.1	90.6%	105.2	98.4%
Mazara del Vallo	99.0	91.3	7.7	92.2%	98.7	99.7%
Gorizia(A)	2.0	0.0	2.0	0.0%	0.6	30.0%
Gela(B)	29.2	24.4	4.8	83.4%	29.2	100.0%
TOTAL	296.2	269.2	27.0	90.9%	292.7	98.8%
LNG Terminal						
Panigaglia	13.0	7.2	5.8	55.4%		
Cavarzere	26.4	21.0	5.4	79.5%		

(A) Imports at Gorizia are a "virtual" transaction resulting from lower physical exports.
(B) Capacity available from April 2010.

Source: AEEG, from data supplied by Snam Rete Gas.

Compared with the capacity[10] made available the previous thermal year, the Tarvisio entry point saw an increase of 6 M(m³)/day in allocable capacity. This was the result of the entry into operation of ENI's upgrades to the TAG pipeline, with the completion of the two expansions (the first of which began operating in February 2009). These were a consequence of commitments entered into in 2003 with the European Commission as part of an enquiry into the territorial restrictions on sales envisaged in the gas supply contracts between Gazprom and ENI. A capacity increase of 800,000 m³/day, with effect from April 2010, was also seen at Gela. This was the result of up-grade programmes currently underway on the Greenstream pipeline from Libya. Greenstream's total capacity is expected to increase to 11.53 G(m³)/year by the end of 2011.

[10] It should be noted that transport capacity is calculated using hydraulic simulations of the transport network. These take into account the projected withdrawal scenarios for the year under consideration. Capacity at each entry point is determined using the "heaviest" transport scenario (the summer one for the Mazara del Vallo, Tarvisio and Gorizia entry points and the winter one for Passo Gries). Snam Rete Gas evaluates the maximum amounts that can be injected to the network from each entry point without exceeding the minimum pressure constraints at the various points of the system or the maximum performance levels of the plants concerned. The aim here is to ensure that the transport service is available at the required level throughout the thermal year.

Total allocable capacity rose from 289.8 M(m^3)/day in the previous thermal year to 296.2 M(m^3)/day, an increase of 2.2%.

The results of the allocation show that, at the start of the thermal year 2009-10, 90.9% of firm transport capacity at pipeline connections to neighbouring countries had been allocated to 67 operators. Considering, however, the additional capacity allocated later in the thermal year, by 30 June 2010 pipeline saturation had risen to 98.8%.

For comparison, Table 4.1 also shows the entry points corresponding to the two LNG regasification terminals currently operating in Italy. Daily allocable capacity at Panigaglia, of 13.0 M(m^3)/day, is allocated to the terminal operator, GNL Italia (ENI group). GNL Italia injects gas into the system on behalf of its regasification customers to enable transport capacity to be used as efficiently as possible at the terminal interconnection.

However, for both the current thermal year (2009-10) and the next, maximum daily regasification capacity at Panigaglia (in Liguria region) will be reduced once maintenance work starts on one of the four vaporisers.

Daily allocable capacity at the Rovigo terminal (connected with the network at Cavarzere) is 26.4 M(m^3)/day. As the operator, Terminale GNL Adriatico, has been exempted from third-party access obligations for 25 years under Law 239 of 23 August 2004 and European Directive 55/03/EC, allocable capacity at this point will be limited to 5.4 M(m^3)/day until thermal year 2032-33. Moreover, in accordance with resolution 168/06 of 31 July 2006 this capacity too will be reserved for the regasification company for the first 5 thermal years.

Long-term allocations

Table 4.2 summarises long-term allocated capacity (at October 2009) at entry points with pipeline connections to neighbouring countries. As envisaged by the Authority's provisions, capacity for the next five thermal years starting from 2011-12 was allocated this year to a total of 23 operators with long-term import contracts.

The table also includes thermal year 2010-11, with the long-term capacity allocated last year. Worthy of note is the considerable increase in available medium-term capacity at Passo Gries, probably as a result of the expiry of supply contracts from Holland and the North Sea which are currently still in force.

Table 4.2 Capacity allocation at entry points to the national network in thermal years 2010-11 to 2015-16

M(m³) standard per day

THERMAL YEAR	ENTRY POINTS					
	TARVISIO	MAZARA DEL VALLO	PASSO GRIES	GELA	GORIZIA	CAVARZERE
2010-2011						
Allocable capacity	107.0	99.0	59.0	29.2	2.0	26.4
Allocated capacity	90.4	87.8	52.2	21.9	0.0	26.4
Available capacity	16.6	11.2	6.8	7.3	2.0	0.0
2011-2012						
Allocable capacity	107.0	99.0	59.0	31.6	2.0	26.4
Allocated capacity	91.0	87.8	50.8	21.9	0.0	26.4
Available capacity	16.0	11.2	8.2	9.7	2.0	0.0
2012-2013						
Allocable capacity	107.0	99.0	59.0	31.6	2.0	26.4
Allocated capacity	90.8	86.7	48.8	21.9	0.0	26.4
Available capacity	16.2	12.3	10.2	9.7	2.0	0.0
2013-2014						
Allocable capacity	107.0	99.0	59.0	31.6	2.0	26.4
Allocated capacity	82.0	86.6	45.1	21.9	0.0	26.4
Available capacity	25.0	12.4	13.9	9.7	2.0	0.0
2014-2015						
Allocable capacity	107.0	99.0	59.0	31.6	2.0	26.4
Allocated capacity	81.7	86.5	21.2	21.9	0.0	21.0
Available capacity	25.3	12.5	37.8	9.7	2.0	5.4
2015-2016						
Allocable capacity	107.0	99.0	59.4	31.6	2.0	26.4
Allocated capacity	80.8	86.5	7.3	21.9	0.0	21.0
Available capacity	26.2	12.5	51.7	9.7	2.0	5.4

Source: Snam Rete Gas.

Rules for interconnection capacity allocation and management

No significant developments were seen in 2009 in the rules for the allocation and management of interconnection capacity. For more details, please refer to last year's Annual Report.

4.1.2 Regulation of the tasks of transmission and distribution companies

Transport

The national gas transport system is operated by 10 companies: 3 for the national network and, with some overlap, 9 for the regional (Table 4.3). One change since 2009 is the entry of Italcogim Trasporto at the regional level, replacing Arcalgas Progetti as operator of the Marches Region section of the network. 2008 saw the entry of Edison Stoccaggio as operator of the Cavarzere-Minerbio pipeline linking the new regasification facility at Rovigo with the national network.

In terms of ownership structure and management, the gas transmission system has not changed significantly. The main transmission operator, Snam Rete Gas, owns 31,531 km of the total 33,584 km network constituting the Italian gas transmission system. The second operator is the Edison group, which runs a total of 1,380 km of pipeline, of which 203 km in the national network.

The Edison Group operates both the network owned by Società Gasdotti Italia (1,297 km) and the pipeline linking the Rovigo LNG terminal, through its Edison Stoccaggio subsidiary. Completing the transport network are 7 minor operators which own small sections of the regional system. Carbotrade, which sold its gas transmission business to Metan Alpi Energia on 1 January 2009, is no longer shown in Table 4.3.

Table 4.3 Networks of the transmission companies in 2009

km

COMPANY	NATIONAL NETWORK	REGIONAL NETWORK	TOTAL
Snam Rete Gas	8,871	22,660	31,531
Società Gasdotti Italia	120	1,177	1,297
Edison Stoccaggio	83		83
Consorzio della Media Valtellina per il trasporto del gas	0	35	35
Gas Plus Trasporto	0	42	42
Italcogim Trasporto	0	15	15
Metan Alpi Energia	0	67	67
Metanodotto Alpino	0	76	76
Netenergy Service	0	36	36
Retragas	0	402	402
TOTAL	9,074	24,510	33,584

Source: AEEG, from data collected from operators.

Transport activity is governed by Network Codes drawn up by transmission companies under criteria established and approved by the regulator. The Network Codes for gas transmission have been in place since October 1 2003 and are constantly updated.

To increase the effectiveness of the incentive mechanism for the improvement of natural gas infrastructure, the Authority opened a procedure to define the criteria for calculating the return on new investments on the basis of standard costs and investment efficiency indictors for incentive purposes. A further procedure to incentivise and speed up the

implementation of investments to develop transport capacity, as envisaged for the electricity sector, was opened.

As regards natural gas metering and dispatching services, Resolution ARG/gas 184/09 of 1 December 2009 sets out a coordinated framework for all the activities and responsibilities of the metering service, including regional transport networks. This will be compatible with the provisions the Ministry for Economic Development intends to adopt for individual metering systems on the national transport network by allocating:

- to the major transport company, responsibility for meter-reading activities and the role of supervising and coordinating the operators responsible for the metering service;
- to the owners of metering installations, responsibility for metering activities with reference to injection points for gas produced in Italy, storage sites, LNG regasification terminals and distribution networks;
- to transport companies, responsibility for metering activities at redelivery points to consumers connected to the transport network; for existing metering facilities, the transport company should use the service provided by the owner of the facility until it has been fully replaced.

On the basis of its metering service coordination and supervisory role, the main transport company is obliged to submit a new plan to the Authority for metering unit upgrades and maintenance. It must also ensure that provisions concerning upgrades or improvements to metering facilities are implemented.

Distribution

The ownership of natural gas distribution facilities remains fragmented between some 270 companies (compared with over 430 in 2005). The principal operator is still ENI, which controls 22.6% of the market (in terms of distributed volumes).

The extent of the distribution networks in the Italian regions is shown in Table 4.4.

The redefinition of the industry framework that for some time now has been a key feature of natural gas distribution, and which leads each year to numerous mergers and acquisitions and thus to a reduction in the number of companies operating in the sector, continued last year. By the end of 2009 the number of distributors had fallen to about 270, from 295 at 31/12/2008. The figure for 2009 is subject to change as a result of delays by some companies in sending in data on changes in company structures last year.

The most significant operations were:

- the incorporation of 4 companies from the E.On group in another company from the same group, which now has just one distribution company.
- The incorporation of Asm Reti, a distribution company for the Brescia segment of A2A, in A2A Reti Gas, as a result of which A2A Reti Gas passed the 1-millon-customer mark in 2009;
- Gas Natural Distribuzione Italia's acquisition of 7 companies (Normanna Gas, Smedigas, Gasdotti Azienda Siciliana, Agragas, Italmeco, Calgas and Pitta Costruzioni). With these operators, the number of customers served by Gas Natural Distribuzione Italia rose to nearly half a million, while the volumes of gas distributed by the company tripled.

Table 4.4 Extent of the distribution networks in 2009

REGION	EXTENT OF NETWORK		
	HGH PRESSURE	MEDIUM PRESSURE	LOW PRESSURE
Val d'Aosta	0.3	165.8	194.9
Piedmont	80.7	11,501.4	11,883.2
Liguria	57.4	1,945.4	4,125.6
Lombardy	112.5	14,346.2	31,414.9
Trentino Alto Adige	181.9	2,015.4	1,955.5
Veneto	290.0	10,444.7	17,970.4
Friuli Venezia Giulia	5.1	2,084.0	5,053.5
Emilia Romagna	305.9	16,771.1	12,808.3
Tuscany	248.9	6,068.8	9,361.3
Lazio	198.6	6,139.5	8,155.7
Marche	19.1	4,259.0	4,539.6
Umbria	105.5	1,810.1	3,172.7
Abruzzo	1.4	4,335.6	4,657.5
Molise	5.6	978.3	872.7
Campania	17.6	3,857.4	7,449.5
Puglia	96.3	5,206.9	6,260.7
Basilicata	0.8	819.2	1,508.4
Calabria	34.7	2,289.6	3,403.8
Sicily	60.3	4,082.3	7,804.8
Not in operation	0.0	439.4	1,056.8
TOTAL	1,822.7	99,560.2	143,649.8

Only 35 operators (14% of companies operating in the sector) serve more than 100,000 customers, the level at which the Authority's provisions envisage obligatory functional unbundling. Overall, they account for 81% of the volumes distributed in Italy (in 2008 these same companies covered 78%).

In 2004 the Authority issued the rules governing access to and delivery of the natural gas distribution service. These envisaged, inter alia, that all distribution companies must operate on the basis of a Network Code. In 2006 the Authority drew up a standard Network Code, since which time all distribution companies have been required to draw up their own Code. They may adopt the rules envisaged by the standard code or submit their own proposed Code – drafted to meet their own needs but based on the standard code – to the Authority for approval. In 2009 the Authority amended and added to some parts of the standard network code, most notably the sections governing readings, gas volume adjustments, and metering service responsibilities.

Minimum areas for natural gas distribution - In 2009, in collaboration with the Ministry for Economic Development, the Authority continued its work on identifying the minimum geographical zones for the distribution of natural gas.

With Consultation document DCO 15/08 of 3 June 2008, the Authority presented its preliminary proposals for the selection of optimal catchment areas, based on criteria of efficiency and cost reduction. The consultation document also contained the Authority's proposals on the subsequent definition of minimum geographical catchment areas for conducting competitive tenders for the gas distribution service.

In Document DCO 15/08, the Authority suggested 250,000-350,000 as the minimum number of redelivery points per catchment area on which to base a rationalisation of the natural gas distribution system. These figures were based on: an examination of international experience; the evidence of economies of scale – highly significant for small- and medium-sized companies, less so for bigger companies; and the results of an analysis conducted on a cross-section of data provided by Italian distributors for 2006.

In addition to these economic considerations, the Authority also considered the technical constraints deriving from its examination of the development of existing distribution plants and their interconnections, as well as their geographical locations. On this basis, in DCO 15/08 the Authority formulated its initial concrete proposal, which envisaged 44 minimum catchment areas for the organisation of the natural gas distribution service.

As a result of the consultation, the Authority fine-tuned this initial proposal and on 30 January 2009 sent a document entitled *Considerazioni finali relative alle proposte in materia di individuazione di bacini ottimali di utenza* (Final considerations on the proposals concerning the selection of optimal catchment areas) to the Ministry for Economic Development. In light of the observations received during the consultation, the Authority had made some adjustments to the initial proposal set out in document DCO 15/08 and raised the number of proposed minimum catchment areas from 44 to 59.

One technical detail is that, in taking the minimum number of redelivery points as being more than 100,000 units, the Authority took into account the results of existing studies which suggest that, looking only at the operating costs for the operation of the networks, the effect of the economies of scale diminishes noticeably from that number on.

Subsequently, in compliance with the provisions of art. 30 para 26 of Law 99 of 23 July 2009, the Authority took part in the working table set up at the Ministry for Economic Development. In this context it eventually agreed on 127 as the number of minimum catchment areas. This figure is higher than those considered in the consultation process or in the Authority's initial proposal. Indeed, the Authority feels that a lower number would be preferable in the interests of greater efficiency and effectiveness of the gas distribution system. However, it feels that 127 can still be considered acceptable, but as a transition to an optimal system, a goal that can be pursued through the incentives envisaged by the same decree.

Transport tariffs

With resolution ARG/gas 184/09 of 1 December 2009 the Authority approved the criteria for the regulation of the natural gas transport and dispatching service for the third regulatory period, 2010-13. These provisions complete the procedure opened in April 2008 and subjected to Regulatory Impact Analysis (RIA).

The tariff regulation mechanisms established for the third regulatory period envisage:

- using the calendar year rather than the thermal year, which was used during the previous regulatory period, as the reference used to set and apply transport tariffs;
- setting the real, pre-tax rate of return on invested capital at 6.4% for the transport and dispatching service;
- confirming the same incentive mechanism for new investments as was applied in the second regulatory period and introducing an efficiency index for the cost/benefit analysis applied to infrastructure development;
- confirming the adoption of the entry-exit tariff model for gas entering and leaving the national pipeline network. With a view to promoting competition, simplifying the structure of the "exit" tariff zones by bringing them into line with the geographical areas in which the tariff tariffs apply;
- providing for gas to be allocated for the operation of compression stations and the replacement of network losses for users of the transport service;
- treating any unrecorded gas using criteria similar to those used for physical network losses, and awaiting a later provision to define the targets for the reduction of unrecorded gas;
- setting differentiated efficiency gain coefficients (price caps) for each transport firm. In cases where, during the reference year for the determination of operating costs, operators' actual costs are lower than those allowed for, the price cap should be set at a level that will offset the profit-sharing over a period of 8 years;
- Breaking income down into capacity and commodity components so as to reflect the structure of the transport operator's capital and running costs.

In the same Resolution, the Authority defined the provisions governing the attribution of responsibility and the tariff criteria for the metering service for natural gas transport for 2010-13. More specifically, the costs of this service will be split off from general natural gas transport and dispatching costs in order to set a specific charge for the remuneration of the service.

As regards the tariff regulation criteria for the transport metering service, the Authority envisaged that:

- in calculating the allowed cost, reference should be made to all the assets and activities required for the provision of the service, except those for which national producers are responsible (and which are already covered in the sales contracts entered into by those same producers). The cost should refer to a technologically advanced metering system and a service provided in conditions of quality and efficiency;
- the allowed rate of return on invested capital for the gas transport metering service should be 6.9%.

With the same Resolution, the Authority postponed the application of the new tariff provisions until 2011, in order to complete the necessary procedures for the reform of the service. Transitional regulations are to be introduced for 2010. These would involve a metering fee based on the allowed costs for the metering services for transport companies only; this would be applied to capacity delivered at the redelivery points on the transport network.

Regasification tariffs

Under ARG/Gas 92/08 of July 7 2008, by 31 May each year regasification companies are required to send the Authority their tariff proposals for the following thermal year. After examining these proposals, in Resolution ARG/gas 102/09 the Authority set the regasification service tariff for 2009-10 for GNL Italia and Terminale GNL Adriatico.

With Resolution ARG/gas 24/10 of 1 March 2010, the Authority determined the tariff for maritime towing and mooring services at GNL Adriatico's terminal for thermal year 2009-10. These apply until and unless the Ministry for Infrastructure and Transport decides otherwise.

Distribution tariffs

As with transmission tariffs, the tariffs applied for local gas distribution are proposed by companies, in accordance with the regulatory criteria defined by the Authority at the beginning of each four-year regulatory period. The Authority monitors and approves these tariffs on an annual basis, taking the operators' reference revenues into account.

2009 saw the adoption of the first provisions implementing the reform introduced through Resolution ARG/gas 159/08 of 6 November 2008. This had approved Part II of the *Consolidated Text for the quality and tariff regulation of the gas distribution and metering services for regulatory period 2009-12* (TUDG). The Resolution in question contains provisions governing *Tariff Regulation for the gas distribution and metering services for regulatory period 2009-12* (RTDG).

With Resolution ARG/gas 79/09 of 30 June 2009, the Authority approved both the obligatory tariffs for the distribution service and the provisional tariff options for the distribution and metering service for gas other than natural gas. On 5 August 2009 the Authority set the reference distribution and metering tariffs for 2009 (Resolution ARG/gas 109/09). December saw the approval of the distribution and metering reference tariffs for 2009 for gases other than natural gas (Resolution ARG/gas 197/09 of 21 December 2009).

The tariff levels for 2010 were set through Resolution ARG/gas 206/09 of 29 December 2009. The components covering operating costs were updated using the price cap method, applying the annual rate of reduction of allowed unit costs differentiated by company category. The 3rd regulatory period saw the introduction of incentives for distribution companies, which are still very numerous in Italy, to aggregate. These consisted of a modulation of the rate used to calculate the productivity gain (i.e., the *X-factor*), which increases as the size of company decreases. The rate is:

- 3.2% for companies serving over 300,000 redelivery points;
- 4.6% for companies with more than 50,000 but fewer than 300,000 redelivery points;
- 5.4% for companies serving, at most, 50,000 redelivery points.

The Authority's main goals in defining the tariff regulation framework for the 3rd period also include: regulatory stability; convergence between the tariff regulation criteria applied in the electricity and gas sectors; reduction of the revenue risk for operators; consistency between tariff and service quality regulation; and a simplification of tariff mechanisms, not least to foster competition (see *Annual Report* 2009).

Storage tariffs

With resolution 50/06 of 3 March 2006, at the end of the first regulatory period for storage, the Authority defined the storage tariff criteria for the second regulatory period (1 April 2006 – 31 March 2010). To promote improvements to existing reservoirs and the development of new ones, an endeavour characterised by rising costs, a single national tariff is applied. To ensure that each company recovers the revenues due to it, an equalisation mechanism is in place. This entails payment of a variable surcharge on the energy handled (a detailed description of storage tariffs is provided in the *Annual Report* of 2007).

Under resolution 50/06, by 10 February of each year storage companies are required to submit to the Authority the charges they propose to apply for the storage service in the subsequent thermal year. With Resolution ARG/gas 38/09 of 30 March 2009, the Authority approved the proposed charges and went on to set single nation-wide charges for storage activities in thermal year 2009-10. The Authority also approved the proposals for lower unit charges for capacity injection and withdrawal in the interruptible storage service.

With the second regulatory period nearing its close, the Authority opened a procedure to draw up provisions governing natural gas storage tariffs for the third regulatory period, 2010-14 (Resolution ARG/gas 72/09 of 15 June 2009). In drafting these provisions, which were subjected to Regulatory Impact Analysis (RIA), the Authority sought to take the following into account:

- the need to introduce mechanisms to incentivise the efficient development of natural gas storage infrastructure;
- the need to ensure that tariffs and charges are defined in line with the Authority's provisions governing access to and delivery of storage services;
- possible developments in the balancing service in the natural gas market.

In view of the need to establish tariff criteria that take into account the evolution of the regulatory and legislative framework governing the storage service, with resolution ARG/gas 21/10 of 23 February 2010 the Authority extended the tariff proposals approved for thermal year 2009-10 through Resolution ARG/gas 38/09 to cover the period 1 April 2010 to 31 December 2010 also.

Balancing

Since 1 October 2007, as part of the reform of the gas balancing system, the Authority has established new standard withdrawal profiles and gas use categories. The provision adopted altered the regulations with a view to redefining the allocation processes in terms both of operators' responsibilities and of timescales and operational arrangements. A redefinition was deemed essential in order to attain the goal of drawing up a definitive daily trading balance and establishing a daily balancing market. The same provision defined the standard withdrawal profiles that will be used throughout the country.

In April 2008, the Authority published consultation document DCO 10/08 on the *Possible evolution of the balancing service in the natural gas market*. The document set out a roadmap for the definition of a new market-based balancing system. This effort is considered a preliminary step towards the major goal of the gas exchange (see *Annual Report* 2009 for a detailed description of the Consultation document).

Consultation document DCO 3/09 concerns a review of the treatment of gas not directly metered (network losses, line pack changes, unrecorded gas) in the gas balancing service. In this document, the Authority proposed that the transmission company should be given responsibility for that part of the system-balance equation that is not subject to metering, including unrecorded gas. The aim was to remove uncertainty for operators (balancing services users), such as the *ex post* allocation of quantities of unrecorded gas. These are affected by uncertainties in producing precise metering data and by procedural anomalies in recording, reporting and accounting for other categories of unmetered gas.

With Resolution ARG/gas 182/09 of 27 November 2009, the Authority approved the criteria for defining and allocating the various categories of gas involved in natural gas balancing, as specified after adjustments to the metering data once the transport accounts have been closed. Resolution 182/09 is a first step in the planned reform of the gas system balancing mechanisms.

The current problems with the definitive closure of transport companies' accounts, referring each month to the third previous month, is that the timescale is too short compared with the time required for transport and distribution companies to gather metering data. It can therefore happen that amendments or corrections to the metering data are made after the accounts have been closed.

Following these adjustments, users of the transport network do not see the new position (the re-calculated transport charges, or the revised balancing positions, or the value of the gas concerned) properly recognised under any profile. At the same time, they are required to apply adjustments crediting or debiting their customers after the corrections have been made.

Resolution ARG/gas 182/09 identifies the criteria for handling any corrections made to redelivery points' metering data after the transport company concerned has closed its accounts. Resolution 182/09 envisages an economic evaluation of the physical quantity of gas resulting from the correction for the user concerned, with an invoice/credit note being issued for the adjustment as a result. The economic calculation is linked to a monthly price index for the wholesale raw material component, plus a portion of the cost of transport to the virtual trading point (PSV).

At the moment, the provision is only applied to corrections to metering data at REMI[11] sub-stations feeding a single end-user, that is, only customers directly connected to the transmission network. Customers attached to distribution networks are therefore excluded.

Quality and safety of gas services

2009 was the first year of implementation of the new service quality regulations for the gas distribution and metering services for regulatory period 2009-12 (RQDG). These provisions were approved by the Authority with Resolution ARG/gas 120/08 of 7 August 2008. The RQDG contains all the regulatory provisions applicable to the quality aspects of the gas distribution and metering services, and replaces the *Gas Service Quality Code* for

[11] Regulation and metering sub-stations located as close as possible to both the pipeline supply points and the customer's connection.

regulatory period 2005-08 (Annex 1 to Resolution 168/04 of 29 September 2004 as supplemented and amended). For the regulation of economic factors relating to 2008 and/or in view of the need to introduce the changes gradually, some of the provisions of the *Gas Service Quality Code* introduced with Resolution 168/04 continued to apply in 2009.

The decision to confirm the previous regulations proved to be effective since 2009 saw a further increase in the amount of network inspected. Indeed, the minimum levels established by the Authority (20% for low pressure and 30% for medium and high pressure) were comfortably met, the inspection rate being well over 50%.

Turning to the rapid-response service for distribution facilities, the average time required is well below the 60-minute maximum envisaged by the RQDG. Indeed, while the number of emergency calls recorded increased in absolute terms, arrival times at call locations averaged about 35 minutes at the national level. The number of emergency calls increased with respect to 2008, with the effective average time of response also increasing slightly.

This can be explained by the growth, in absolute terms, in the number of non-standard calls for causes attributable to distribution companies. This in turn is an effect of the tighter regulations introduced by the RQDG for gas emergencies. These consist of a gradual extension to all operators of the incentive system for safety improvements and the introduction, from 1 July 2009, of voice recordings of calls. The latter is accompanied by a new inspection campaign for the gas emergency services provided by companies, implemented with the help of the Guardia di Finanza (Tax Police).

An analysis of the data submitted by operators reveals that from 2008 to 2009:

- the number of gas leaks located following scheduled network inspections rose from 9,087 to 15,178; however, those located on the network and the underground part, usually more dangerous, decreased from 6,228 to 5,957;
- gas leaks located following reports by third persons increased from 150,148 to 161,394; however, as in the previous case, those normally most risky, i.e. leaks on the network and in the underground part of the system, decreased from 17,252 to 16,408.

The increase in absolute terms was also caused to some degree by the increase in the actual extent of the active network and in the number of consumers connected. As regards the number of leaks by km of network located following reports from third persons in 2009, with sole regard to those on the networks and on underground portion of supply piping, the incidence of leaks at the national level was equal to that recorded the previous year, or 0.07.

Commercial quality of gas distribution service

The regulation of commercial quality was introduced on 1 January 2001 with the entry into force of Resolution 47/00 of 2 March 2000. For the 3rd regulatory period it has been incorporated in part I of the TUDG, *Regulation of the quality of the gas distribution ad metering services for regulatory period 2009-12* or RQDG, described in detail in last year's Annual Report.

2009 saw a number of amendments to the RQDG concerning the reconstruction of consumption following ascertained metering faults. The Authority deemed it appropriate to hold a consultation by formulating proposals to establish a single national

methodology. In so doing, it took into account the opinion submitted by operators' associations as a valid starting point, in view of the highly technical subject matter. Most notably, in consultation document DCO 33/09 of 29 October 2009, solutions were set out concerning the determination of:

- the annual volume, in accordance with Resolution 200/99 of 28 December 1999;
- the permitted margins (%) of error within the maximum and minimum range;
- the volume of any erroneous measurements;
- provisions correcting and supplementing those already in force, with specific regard to eliminating the compulsory requirement to conduct inspections *in situ* each time this is technically possible. This should, however, be achieved without further cost increases for consumers, i.e. by extending the sum envisaged for checks at customers' premises to those conducted by qualified laboratories or workshops;
- complementary rules to be defined in the event that the inspection is conducted at a qualified laboratory or workshop;
- any further matters to consider with a view to devising a consumption reconstruction methodology that can be applied to both types of metering unit inspections.

As a result of the consultation process, the Authority adopted Resolution ARG/gas 71/10 of 27 January 2010. In this, it approved both the general provisions concerning the reconstruction of natural gas consumption following ascertained metering unit faults, and a number of supplements and amendments to art. 41 of the RQDG, applicable with effect from 1 April 2010.

An analysis of the commercial quality data for the distribution service reveals two phenomena for 2009. The first is the convergence between the number of cases of failure to meet those standards that are subject to reimbursement and the number of reimbursements actually paid. The second is the progressive decrease in the number of cases subject to automatic reimbursement for failure to meet the standards.

2009 saw a confirmation of the trends seen in 2008 as regards the prompt payment of compensation in compliance with the rules laid down by the Authority. Also seen was a further improvement in the service in terms of a reduction in cases of failure to meet standards. The latter occurred for the third year running and, with the consequent reduction in compensation payments, is especially significant.

For the 15,578 cases of failure to meet the standards that are subject to reimbursement, corresponding to 15,783 refunds actually paid, the amount paid out was just over 1 million euros. For 2009, the execution of simple works was, once again, the service generating the highest number of failures to meet standards, and therefore of refunds. This category is followed by: quotes for simple and complex works, disactivation of supply, activation of supply, reactivation in the event of disconnection for payment defaults, and punctuality with respect to the time-range given for personalised appointments.

Commercial quality of the gas sales service

The review of commercial quality regulation for the sale of electricity and gas, governed by the TIQV, was introduced by Resolution ARG/com 164/08 of 18 November 2008 and

came into force on 1 July 2009. The TIQV defines the rules laid down to ensure that written complaints, written requests for information and billing corrections are all handled as promptly as possible. It also establishes automatic compensation for consumers (for further details see Chapter 3).

4.1.3 Effective unbundling

With Resolution ARG/com 145/09 of 9 October 2009, the Authority opened a procedure to review certain aspects of the existing rules governing unbundling. In Italy the same unbundling rules apply to the electricity and gas sectors; therefore please refer to the description in section 3.1.3.

Since January 1 2002, gas transport has been subject to mandatory corporate unbundling from all other gas industry activities except for storage, with respect to which it must, however, undergo accounting and management unbundling. Storage is subject to corporate unbundling from all other activities of the gas sector, with the exception of transport. Distribution activity is required to be unbundled from all other gas sector activities.

In accordance with the gas industry liberalisation law, in 2001 the Authority imposed rules for the accounting and administrative unbundling of companies operating in the gas sector. In January 2007 the Authority updated the unbundling regulations with resolution 11/07, which simplified the accounting rules previously in force and introduced new rules governing functional unbundling, implementing European Directives 2003/54/EC and 2003/55/EC.

More specifically, the new provisions require distributors with more than 100,000 customers to provide for the functional separation of distribution from other activities (such as metering). Unless they belong to the category considered "marginal" (i.e. serving fewer than 5,000 customers), distributors with fewer than 100,000 customers are nevertheless obliged to apply accounting unbundling.

Table 4.5 Summary information on gas sector unbundling

	TRANSMISSION	DISTRIBUTION
Separate offices (Y/N)	Y	N
Separate presentation of organisation and management (Y/N)	Y	N
Unbundling of accounts and guidelines (Y/N)	Y	Y
Audits of unbundled reports (Y/N)	Y	Y
Publication of unbundled accounts (Y/N)	N	N
Separate board of directors (some members are also on the boards of associated companies) (Y/N)	Y	N

Source: AEEG.

4.2 Competition issues

4.2.1 Description of the wholesale market

In 2009 the demand for gas showed a marked decline, of 8%, with respect to 2008. This was caused by the impact of the economic recession on economic activity and, as a consequence, on energy consumption.

Preliminary figures published by the Ministry for Economic Development indicate that the contraction in demand led to a fall in consumption of 76.7 G(m^3), from the 83.4 G(m^3) of 2008, the year the first effects of the economic crisis were felt. For the 3rd year running, therefore, demand for gas did not increase, after years in which the sector had become accustomed to very positive and stable growth rates over time.

Consumption in the industrial and thermoelectric sectors collapsed (with falls of 14.4% and 16.8% respectively). The severe winter drove up demand in the residential and service sectors (by 5.4%), while the increased use of methane-fuelled vehicles (encouraged by government incentives) led to a 9.6% increase in road-transport consumption with respect to 2008. As a result of these changes, industry's share of consumption fell to just over 20%, while thermoelectric now accounts for 36.8% and the civil sector (residential and services) for 41.5%.

Table 4.6 Development of the wholesale market

Year	Total Demand (A) G(m^3)	Peak Demand (B) M(m^3)/day	Production G(m^3)	Import Capacity G(m^3)/year				No. of companies with a production share and importation capacity >5%	No. of companies with a share of available gas >5%	Share of the three leading wholesalers
				Total	Priority Access for Transit (C)	Priority Access for LT Contracts	Unreserved Access			
2001	125.1	n.a.	15.5	n.a.	n.a.	n.a.	n.a.	n.a.	2	68.2%
2002	111.8	n.a.	14.3	84.0	0.5	77.3	4.2	3	3	67.4%
2003	123.6	n.a.	13.9	84.8	0.5	78.8	3.1	3	3	63.8%
2004	127.3	386	12.9	88.7	0.5	84.6	2.1	3	3	62.4%
2005	138.3	421	12.0	90.6	0.5	73.5	16.7	3	3	66.7%
2006	134.3	443	11.0	92.3	0.5	74.5	17.3	3	3	66.5%
2007	136.1	429	9.7	98.4	0.5	86.1	11.8	3	3	63.8%
2008	151.5	410	9.3	100.3	0.5	96.1	3.7	3	3	57.1%
2009	146.5	436	8.0	110.9	0.5	102.4	8.0	3	3	49.4%

(A) Gas volumes sold in the wholesale and retail national markets, inclusive of any resale

(B) Injection peak reached on 26/01/2004, 19/12/2005, 25/01/2006, 18/12/2007, 18/02/2008 and 21/12/2009; the volumes shown include injections, deliveries from storage facilities, losses and consumption for network operation.

(C) In Italy transits receive the same treatment as all other transport; the values included in the table refer to a transit contract with priority access under a long-term contract.

Source: AEEG, from data supplied by Snam Rete Gas or declared by other market participants.

As has been the case for many years, domestic production of natural gas continued to fall, to 8 G(m^3) from 9.3 in 2008. Imports fell by 9.9%, from 76.9 to 69.3 G(m^3). Exports too fell, from 210 to 125 M(m^3). About 0.9 G(m^3) of gas was withdrawn from storage. This means that 10.3% of gross demand was met from domestic production and 88.6% from net imports.

In 2009, import capacity grew by nearly 11 G(m^3)/year following ENI's improvements to the gas pipeline for imports from Austria (TAG) and Libya (Greenstream). The new LNG regasification terminal at Rovigo was another contributory factor. The terminal is run by Terminale GNL Adriatico, whose shareholders are Qatar Terminal Limited, with 45%, ExxonMobil Italiana Gas, with 45%, and Edison, with the remaining 10%.

With respect to 2008, the capacity reserved for long-term import contracts fell slightly at nearly all interconnection points with neighbouring countries. Exceptions were Tarvisio and the Rovigo terminal. 80% of the latter's capacity is reserved, since it has been granted exemption from third-party access for 25 years under European law.

About 80% of Italy's gas imports originate in non-EU Countries. Most imported gas arrives in Italy through pipelines, with only 4% being transported by ship. In 2009 this last segment doubled with respect to previous years as the new Rovigo terminal, where gas from Qatar arrives, began operating. It is expected to grow further in coming years.

The main sources of pipeline imports are non-EU countries, with Algeria, Russia and Libya together covering nearly 80% of imports in 2009. The first two each supply one third of Italy's total requirement, with Libya supplying 13% of total imports. Russia supplied 22.9 G(m^3) of gas through the entry points of Tarvisio and Gorizia. Imports from Algeria amounted to 22.7 G(m^3) by pipeline, at the entry point of Mazara del Vallo, and 1.3 by ship, at the re-gasification plant of Panigaglia. Gas from Libya, which last year amounted to 9.2 G(m^3), enters the Italian network at Gela.

Imports from the Netherlands, 7.2 G(m^3), and Norway, 4.8 G(m^3), enter the national network through the Passo Gries entry point at the Swiss border. The remaining 3.5% of imports in 2009 came from other countries: Croatia, with 1.2%, and Qatar, with 2.2%. The last-named, as mentioned above, is destined to grow in coming years once the Rovigo terminal is fully up and running.

As in previous years, the groups[12] holding a market share greater than 5% of the total gas supplied (i.e., produced or imported) were Eni, Enel and Edison, which together covered 80.0% of the total. In 2008, however, their share amounted to 85%. The shares of imported and/or produced gas held by other operators accounted for less than 2.8% of the market. The same three groups own more than 5% of the gas available for sale, a share similar to that of the gas supplied.

With 33 G(m^3) of imported gas, ENI is the dominant operator in the import segment, as it is for national production. Although its share has fallen over time through compliance with the antitrust ceilings established by Legislative Decree 164 of 23 May 2000, ceilings no longer in force since 2010, ENI continues to hold by far the largest slice compared with its competitors. With 10.4 G(m^3) of gas imports, the Edison group has moved into second place, overtaking ENEL, which in 2009 imported 8.6 G(m^3). Edison's rise can be explained

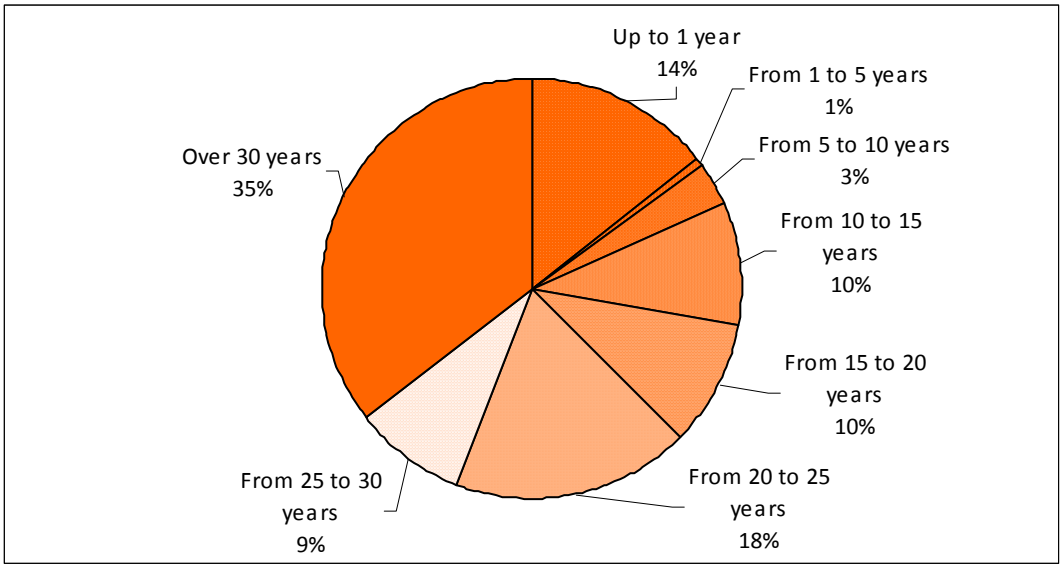
[12] In investigations into the gas market a shareholding in a corporate group is defined in accordance with art. 7 of Law 287/1990 of 10 October 1990. Very briefly, membership of a group is established even if the investing company has a *de facto* controlling stake in the investee.

by the notable increase in its imports (of 43%), while those of ENEL fell by 12% on their 2008 level (a smaller decline than ENI's 28%).

An analysis of active import contracts in 2009 by total duration (Fig. 4.1) shows that import activity is based, as in previous years, on long-term contracts. Over 60% of these contracts are for more than 20 years and a further 20% are for a duration of at least 10 years. With respect to 2008, the weight of spot imports has greatly increased. These are based on agreements of at most one year's duration, and in 2009 reached 14% of the total.

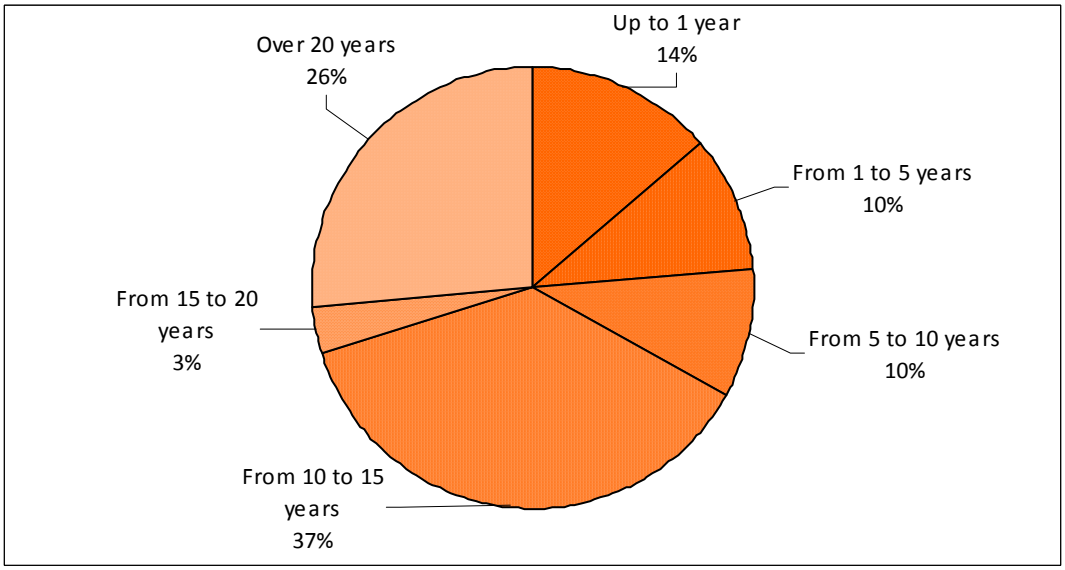
Fig. 4.1 Import contracts in force in 2009 broken down by full duration

Percentages in volume terms



Source: AEEG Annual survey of market participants.

Fig. 4.2 Import contracts in force in 2009 broken down by residual duration



Source: AEEG, from data provided by operators.

This is because some operators, in replying to the questions in the Authority's survey, included data referring to the entire contract, even when some of the gas was not imported to Italy but sold abroad directly. Others recorded the entire quantity that the seller made available to buyers, in other words the *Term Contract Quantity* instead of the *Annual Contract Quantity*, as requested. The figures for spot contracts are therefore entirely provisional.

If we consider residual duration, contracts in force in 2009 still have many years to go. About one third will expire in 15 or more years, and more than two-thirds in 10 or more years. One third of existing contracts will expire in the next 10 years. However, in interpreting these figures, the above warning regarding possible over-estimates of very short-term contracts should be borne in mind.

Total demand in the gas sector in 2009, in terms of volumes sold on the wholesale and retail markets (including resale), peaked at 146.5 G(m^3), 3.3% lower than in 2008 (Table 4.6). 4 operators held a market share of more than 5%. These were the same as the previous year: Eni (28.7%), Enel (10.6%), Edison (10.2%) and A2A (6.9%). The first three groups cover 49.4% of total demand, compared with 57.1% in 2008. Competition in this market is therefore intensifying, albeit slowly, as witnessed by the progressive reduction in the share held by the first three operators. This can be observed in the last column of Table 4.6.

Table 4.7 Gas market

G(m^3)

	Total Consumption (1)	Trading in the Organised Spot Market	Trading in the Forward Hub Market	Bilateral OTC(2) Trades
2002	71.0	not applicable	not applicable	1.7
2003	77.4	not applicable	not applicable	2.7
2004	80.3	not applicable	not applicable	5.4
2005	86.2	not applicable	not applicable	7.0
2006	84.5	not applicable	not applicable	7.4 (**4.3**+3.1)
2007	84.9	not applicable	not applicable	12.1 (**9.7**+2.4)
2008	84.9	not applicable	not applicable	16.4 (**14.9** + 1.5)
2009	78.1	not applicable	not applicable	24.4 (**21.6** + 2.8)

(1) Gas availability gross of network losses and consumption.

(2) Gas volumes purchased at the PSV or at entry points to the national network. More precisely, volumes purchased in the secondary market; the rest of the gas is purchased in the primary market (i.e., directly from domestic producers, imports or storage)

Source: AEEG, from data provided by operators.

Under the current legislation, gas operators can trade gas injected to the national network at a virtual point located, conceptually speaking, between entry and exit points on the network: the Virtual Trading Point (PSV). The PSV, as a secondary market, provides operators with a useful commercial balancing tool and the possibility of replicating the effects of daily capacity trading, for example in the event of interruptions or reductions in capacity from a given source of supply.

Transactions at the PSV are conducted under bilateral over-the-counter contracts. The PSV cannot, however, be equated with a gas exchange, which in Italy was only recently established under the GME. The Gas Exchange was launched through a ministerial decree

in May 2009, with the activation of the gas platform (P-GAS). During these early stages the GME acts as broker between buyers and sellers. During the second stage, which starts at the beginning of the next thermal year, it will act as a central counterparty.

In recent years the PSV has considerably increased in importance, in terms both of volumes traded and number of transactions. This has partly been a result of provisions issued by the Ministry for Economic Development and the Authority which, with a view to promoting the regulated gas capacity market, have in recent years adopted various measures to increase its liquidity.

These include a measure which since November 2006 has enabled traders to conduct transactions at the national hub without at the same time being users of the transport system. Other more recent measures envisaged the obligation to offer quotas of imported gas on the PSV on which, in 2009, 82 operators exchanged, sold and purchased gas. Of these, 22 were pure traders, in that they were not users of the transport system. The number of traders grew considerably in 2009, if we consider that the same figures for 2008 give 61 operators engaging in trading, only 7 of which not users of the transport system.

In 2009 transactions on the PSV reached 21.6 G(m^3). This is because, of the 24.4 G(m^3) in volumes actually traded at the PSV, as indicated in Table 4.7, 2.8 G(m^3) actually involve gas redelivery at the Panigaglia and (since October 2009) Rovigo regasification terminals. These redeliveries, although recorded as operations at the PSV, are not the result of transactions between operators on the secondary market. Compared with the 14.9 G(m^3) recorded in 2008, traded volumes have therefore grown by 45%, to nearly a fifth of the total volumes consumed in Italy net of network losses, i.e. 78.1 G(m^3).

About 1 G(m^3) of total transactions involve volumes purchased by ENI, which then transferred them through gas release operations as a result of provisions issued by the Antitrust Authority.

4.2.2 Description of the retail market

Table 4.8, which gives the key figures for the retail market, shows that 2009 was a negative year for the natural gas sector. The Ministry for Economic Development has estimated that gross domestic consumption – i.e., including losses of about 1.4 G(m^3) – amounted to 78.05 G(m^3), compared with 84.9 G(m^3) in 2008.

Based on the initial, preliminary annual survey conducted by the Authority on the evolution of the regulated sectors, sales to the retail market in 2009 totalled 66.55 G(m^3). If we add 12.49 G(m^3) of self-consumption (gas consumed directly in operators' electricity power stations), then overall consumption in Italy was 79.04 G(m^3). This figure is higher than, but not too dissimilar to, the 78.05 G(m^3) published by the Ministry for Economic Development.

Out of 308 sales operators responding to the survey, 185 sold gas exclusively to the retail market, 98 sold gas to other operators as well as directly to the retail market and 25 only sold gas to other suppliers. 28 said they had not been active in 2009.

Of the groups selling to the retail market, 6 (compared with 4 in 2008) had nationwide operations (Eni, Enel, Energie Investimenti, Edison, Repower and Shell). 22 groups operated

on most of the national market (i.e., in at least 10 of the 19 regions with gas distribution infrastructure).

Gas retailers unaffiliated with, and therefore independent of, distributors numbered 206 out of a total of 336 respondents, or 61.3%. A much larger number of suppliers were independent of transporters: 319, or 94.9%.

Table 4.8 Development of the total retail market

Year	Gross consumption G(m³)	No. of Companies with >5% share in the Retail Market	No. of Independent Companies (A)	Market Shares of the first three Companies (%)				Cumulative % of customers switching supplier (by volume)			
				Thermoelectric use	Large Industries (B)	Small and medium industrial and commercial enterprises (C)	Very small enterprises and residential (D)	Thermoelectric use	Large Industries (B)	Small and medium industrial and commercial enterprises (C)	Very small enterprises and residential (D)
2001	70.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2002	70.0	4	n.a.	85.7		54.3		n.a.	n.a.	n.a.	n.a.
2003	76.4	5	n.a.	74.4		45.6		n.a.	n.a.	n.a.	n.a.
2004	80.6	5	110	80.3	54.1	n.a.	33.2	53.0(E)		6.0(F)	1.0(G)
2005	86.3	3	123	91.2	71.1	43.1	47.3	7.0(E)		4.0(F)	1.0(G)
2006	84.5	3	182	89.7	71.1	47.3	47.1	7.0(E)		4.0(F)	1.0(G)
2007	84.9	3	178	84.7	67.0	47.1	44.6	n.a.		4.7(F)	1.0(G)
2008	84.9	4	184	80.8	65.2	40.5	47.9	47.4(E)		7.3(F)	1.3(G)
2009	78.1	4	206	71.2	60.2	41.5	48.1	58.9(H)	37.5(I)	10.5(F)	5.0(G)

(A) Fully independent of distribution
(B) Industrial sector
(C) Commercial and service sector
(D) Residential customers
(E) Standard consumers with annual consumption > 200,000 m^3.
(F) Standard consumers with annual consumption of 5,000-200,000 m^3.
(G) Standard consumers with consumption < 5,000 m^3/year.
(H) Standard consumers with annual consumption > 20 G(m^3).
(I) Standard consumers with annual consumption of 2 to 20 G(m^3).
Source: AEEG, from data provided by operators.

The level of market concentration (inclusive of self-consumption) has diminished in comparison with last year: the share of the first three groups fell to 57.5%, from 62,7% in 2008. As in 2008, ENI's market share has fallen further (32.5% against 37.1% in 2007) in favour of Edison (12.4% this year against 10.4% in 2008). ENEL's share also fell, from 15.2% in 2008 to 12.5%. As was the case last year, 4 groups held a market share of over 5%: the first three mentioned above plus the A2A group, which was established in 2008 through the merger two major companies (Aem Milano and ASM Brescia).

As can be seen in Table 4.8, in 2009 the levels of concentration per market diminished, with the exception of the residential and small- and medium-sized enterprises market. The first three operators in each market covered:

- 71.2% of sales to electricity generation (in order, ENI, Edison and ENEL);
- 60.2% of sales to industrial customers (in order, Eni, Energie Investimenti and Enel);
- 41.5% of sales to customers in the commercial and services sectors (in order, Eni, Hera and Enel);

- 48.1% of sales to households (in order Eni, Enel and Hera)

As in 2008, the Authority's annual survey of the natural gas sector separated out operators' self-consumption. Self-consumption means the quantity of gas produced, imported and/or purchased in Italy and directly consumed by operators in calendar year 1 January–31 December 2009, broken down by consumption sector. If we bear these data in mind, an analysis of the market and its level of concentration holds some surprises (Table 4.9).

Table 4.9 Shares of the first three groups in the retail market, net of self-consumption

Consumption Sector	2007		2008		2009	
Power Generation	86.1%		80.8%		69.9%	
	Eni	47.8%	Eni	42.4%	Eni	30.2%
	Enel	32.2%	Enel	29.7%	Enel	22.7%
	Edison	6.2%	Edison	8.7%	Edison	17.0%
Industry	67.0%		65.2%		60.2%	
	Eni	55.1%	Eni	45.6%	Eni	41.4%
	Enel	6.8%	Enel	11.6%	Energie Investimenti	11.0%
	Energie Investimenti	5.0%	Energie Investimenti	8.0%	Enel	7.8%
Commerce and Services	47.0%		40.5%		41.1%	
	Eni	30.1%	Eni	20.4%	Eni	23.2%
	Hera	11.3%	Energie Investimenti	10.2%	Hera	9.5%
	Enel	5.7%	Enel	9.9%	Enel	8.4%
Residential	44.5%		47.9%		48.1%	
	Eni	29.0%	Eni	29.3%	Eni	27.1%
	Enel	10.0%	Enel	12.7%	Enel	15.4%
	Hera	5.5%	Hera	6.0%	Hera	5.6%

Source: AEEG, from data provided by operators.

If we exclude self-consumption form the market, the groups covering more than 5% of sales become 5 in number. These are Eni, with 31.9 (37.1% in 2008), Enel with 14.9% (15.2% in 2008), Edison, with 7.7% (10.4% in 2008), E.On with 5.3% (4.7% in 2008), and lastly, Energie Investimenti, with 5.2% (3.7% in 2008).

Concentration levels fall slightly or remain essentially unchanged in the 4 consumption sectors when we exclude self-consumption, compared with the levels found in the market inclusive of this form of consumption (Table 4.8). Compared with 2008, however, market shares net of self-consumption show a significant reduction (Table 4.9), with the dominant groups swapping positions in relation to the different customer categories.

Foreign penetration in the Italian retail market does not seem significant. Just 28 respondents in the Authority's survey were retailers with at least one foreign shareholder (with a holding of no less than 30%). Together they account for 3.1% of the total market (including self-consumption) and 1.8% of final sales.

The leading companies with foreign shareholders selling gas to power generators are Elektrizitats-Gesellschaft Laufenburg, PremiumGas and E.On Ruhrgas (which together cover 5.5% of this market). The first three selling to large industrial customers are the Burgo Group, Egl Italia and Energetic Source (with an overall share of 1.1%). The first

three companies selling to customers in the trade and service sectors are Gas Natural Vendita Italia, Multiutility and Begas Energy International (with an overall share of 1.0%). Finally, the first three companies with at least one foreign shareholder selling to household consumers are Gas Natural Vendita Italia, Energetica and Cofely Italia (with an overall share of 1.0%). The market share of the first three fell with respect to 2008 in all sectors except for electricity generation, where it grew by nearly 2 percentage points.

As regards integration between supply and retail sales, 36 companies operate in both segments. The first three companies (Eni, Enel and Edison) together account for 79.5% of the gas produced or imported and for 47.2% of the gas sold to consumers (net of self-consumption) in 2008.

An initial evaluation of the data collected in the annual survey shows that in 2009 the natural gas retail market included nearly 21 million customers. 93% are residential, 6% belong to the commercial and services sectors, 1% to industry and less than 1% to thermoelectric generation. In terms of volume (Table 4.10), the proportions tend to reverse. Including self-consumption, the residential sector absorbed 26% of total gas consumption, or 20.7 G(m^3); the commercial sector 7.5%, or 5.9 G(m^3); industry 24.2%, or 19.1 G(m^3); and power generation 42%, the equivalent of 33,3 G(m^3).

As we move from the residential sector to gas-intensive sectors and those where gas provides an input to the production process, the proportion of volumes purchased on the free market increases: from 10.4% in the domestic sector to 63.6% in commerce and services, 97% in industry and 63% in thermoelectric (a figure influenced by self-consumption). The share of consumption satisfied on the free market also appears to have grown in all sectors except for commerce and services. In 2008 the figures were 9% for residential, 65.6% for commerce, 96% for industry and 60.1% for power generation.

Table 4.10 Retail market by consumption sector in 2009

M(m^3)

	RESIDENTIAL	COMMERCE AND SERVICES	INDUSTRY	ELECTRICITY GENERATION	TOTAL
VOLUMES					
Self-consumption	60	76	51	12,299	12,486
Free market	2160	3749	18525	20,999	45,434
Protected market	18,520	2,065	531	5	21,121
TOTAL	20,740	5,890	19,107	33,303	79,041
SHARE					
Self-consumption	0.3%	1.3%	0.3%	36.9%	15.8%
Free market	10.4%	63.6%	97.0%	63.1%	57.5%
Protected market	89.3%	35.1%	2.8%	0.0%	26.7%
TOTAL	26.2%	7.5%	24.2%	42.1%	100.0%

Source: AEEG, from data provided by operators..

The data on retail sales by sector, consumption class and customer size (Table 4.11) confirm that as consumption grows customers tend to move to the free market.

It should be noted that customers are showing up in the protected consumption categories for consumption greater than 200,000 m^3. This is because these categories include consumption by customers who, although having the option of switching supplier, have

not yet done so and have opted to stay with the contractual conditions protected by the Authority. The number of such customers and the volumes of gas purchased by them are relatively low and shrinking over time.

In 2009, compared with more than 20 G(m^3) sold under protected terms to customers with consumption of less than 200,000 m^3, 115 M(m^3) were sold under such terms to non-residential customers with consumption greater than this threshold.

Table 4.11 Retail sales by customer size and category in 2009

M(m^3)

SECTOR	CUSTOMERS BY ANNUAL CONSUMPTION CLASS (m^3)					TOTAL
	< 5,000	5,000-200,000	200,000-2,000,000	2,000,000-20,000,000	> 20,000,000	
Residential	15,854	2,532	130	5	0	18,520
Commerce and services	665	1,342	51	6	0	2,065
Industry	52	425	32	22	0	531
Electricity generation	0	1	4	0	0	5
TOTAL VOLUMES SOLD AT PROTECTED PRICES	16,571	4,300	217	32	0	21,121
Residential	926	891	312	31	0	2,160
Commerce and services	531	1,794	927	497	0	3,749
Industry	116	1,947	4,482	6,556	5,425	18,525
Electricity generation	0	10	131	1,004	19,854	20,999
TOTAL VOLUMES SOLD AT MARKET PRICES	1,574	4,642	5,851	8,088	25,278	45,434
TOTAL	18,144	8,943	6,069	8,121	25,278	66,555

Switching

The annual survey conducted on natural gas transport system operators and distributors once again included questions on supplier switching, i.e. on the number of customers changing supplier in the course of calendar year 2009. The questions were framed in such a way as to reflect the European Commission's definition.

2009 saw the introduction of a distinction between customers, based on the consumption sectors introduced by the Consolidated Text for the Gas Retail Sector (adopted through Resolution ARG/gas 64/09 of 28 May 2009). The customer categories now applied are: residential, central heating (which may be protected as long as they consume less than 200,000 m^3 per year) and other uses, including all those customers not included in the first two categories and who from October 2011 (at the latest) must transfer to the free market. It is important to note is that the methodology now adopted means that the data presented in this section are not comparable with those published on other occasions by the Authority.

The survey revealed that 2% of customers changed their gas supplier in 2009, a figure that corresponds to 33.6% in terms of volumes of gas consumed. Table 4.12 shows this information in greater detail, with customers broken down by sector and annual consumption. Residential customers proved to be more prudent in switching to the free market: only 1.8% (2.4% in volume terms) chose a new supplier in 2009.

Central heating and other users were more dynamic in their choices. The percentage of customers switching supplier clearly increases with customer size, because the bigger the volume of gas consumed, the higher the cost of buying the gas. This translated into first, an increased interest in saving, generally the first reason for changing supplier, and second, better knowledge of the sector by customers able to make informed choices.

Table 4.12 Consumers switching rates in 2009

CUSTOMERS BY SECTOR AND ANNUAL CONSUMPTION	CUSTOMERS	VOLUMES
Residential	1.8%	2.4%
Central heating consuming less than 200,000 m^3/year	3.5%	7.2%
Other uses	4.1%	45.3%
Of which:		
Up to 5,000 m^3	3.3%	5.0%
5.000 – 200,000 m^3	7.3%	10.5%
200.000 – 2,000,000 m^3	19.1%	22.2%
2,000,000-20,000,000 m^3	34.4%	37.5%
More than 20,000,000 m^3	52.6%	58.9%
TOTAL	2.0%	33.6%

Source: AEEG, from data provided by operators..

Average selling prices

A provisional analysis of the data collected in the Authority's 2009 survey shows that the average price of gas net of taxes and weighted by volumes sold, as applied by retailers or wholesalers operating in the final market, was 36.58 c€/m^3 (Table 4.13). This compares with 39.25 c€/m^3 in 2008. Overall, therefore, gas prices in Italy fell by 6.8%, benefiting – with the usual indexation delays – from the collapse in the oil price in 2008.

Customers on the protected market paid an average of 48.85 c€/m^3 for their gas, compared with 30.88 c€/m^3 for free market customers, giving a price differential of just under 18 c€/m^3. The price on the free market was lower than in 2008 (by 14%), while that on the free market was 3.1% higher. A comparison with the figures for 2008 shows, therefore, that the price gap between the two markets widened and returned to its 2007 levels.

The size of the price differential between the two markets and the different trends they follow over the period under consideration can be attributed to average customer size. Which, as seen in the section on the retail market (see above), increases in the free market.

This translates into a more flexible price system in which the indexation formulae respond more rapidly and more closely to changes in international fuel prices. The protection mechanism created by the Authority, on the other hand, is linked to variations in a very long moving average of a basket of prices. It is, therefore, able to calm price increases in periods of strong growth in raw material prices but tends to respond more slowly in periods when these are falling.

Table 4.13 Average sales prices net of taxes in the retail market

c€/m³

CUSTOMER AND CONTRACT CATEGORY	2004	2005	2006	2007	2008	2009
PROTECTED MARKET	33,65	35,36	41,57	43,15	47,36	48,85
Consumption less than 5,000 m³	35.32	37.01	43.32	44.59	48.57	49.49
Consumption of 5,000 to 200,000 m³	30.44	32.12	37.94	39.16	43.56	46.60
Consumption of 200,000 to 2,000,000 m³	27.04(A)	29.39(A)	32.64(A)	33.75	38.88	46.35
Consumption of 2,000,000 to 20,000,000 m³	27.04(A)	29.39(A)	32.64(A)	33.28	38.89	34.61
Consumption more than 20,000,000 m³	27.04(A)	29.39(A)	32.64(A)	–	–	–
FREE MARKET	18.76	23.23	28.53	28.13	36.01	30.88
Consumption lower than 5,000 m³	32.99	31.95	41.99	41.01	44.62	43.81
Consumption of 5,000 to 200,000 m³	27.24	29.76	35.53	37.10	42.19	42.17
Consumption of 200,000 to 2,000,000 m³	18.46 (A)	23.00 (A)	28.07 (A)	30.86	37.39	32.97
Consumption of 2,000,000 to 20,000,000 m³	18.46(A)	23.00(A)	28.07(A)	27.85	35.11	29.70
Consumption more than 20,000,000 m³	18.46 (A)	23.00 (A)	28.07 (A)	26.39	34.90	27.89
TOTAL	23.13	26.89	32.61	32.29	39.25	36.58

(A) Until 2006, no further distinction was made for customers with consumption greater than 200,000 m3. The data, therefore, are not directly comparable with subsequent values.

Source: AEEG, from data provided by operators.

The results by customer size confirm that, as in recent years, customers in the protected market pay higher prices than those in the liberalised market with similar consumption profiles. However, as customer size grows in terms of annual consumption, the tendency is once again for protected customers to see a more marked price reduction.

Smaller customers on the protected market, with consumption below 5,000 m³/year, paid on average 49.49 €c/m³. This is close to the average national price calculated for a residential customer consuming 2,700 m³/year, which in 2009 was 45.49c/m³ (equal to 73.02 €c/m³ including taxes).

Again, an analysis of customers in the protected market shows that prices there fall appreciably with increasing consumption. The price differential between small and big customers increased from a minimum of 2.89 cents, to 14.88 cents for the consumption class of 2,000,000-20,000,000 m³. The highest consumption category, with more than 20 M(m³), is of course not represented in the protected market.

Volumes and prices representing the over-200,000 m³ consumption categories can be found in the protected market. This can be explained by the fact that some customers who are entitled to change supplier have not yet made the switch and have retained the contractual conditions protected by the Authority. However, as mentioned above (see retail market section), the number of such customers and the amount of gas they purchase are relatively low, and shrinking over time. Moreover, under the rules laid down by the Consolidated Text for the Gas Retail Sector, non-residential customers (and central heating which consume over 200,000 m³ per year) are required, by October 2011 at the latest, to transfer to the free market.

In the free market, customer size has a greater impact on price: smaller customers pay 15.91 c€/m³ more than large ones, who obtain gas at an average 27.89 c€/m³. However, as

already recalled in the Annual Report of 2007, the incidence of distribution costs is much greater for smaller consumers. Indeed, this component explains much of the price differences between consumption classes. Small consumption volumes are also subject to greater heating use, a factor entailing storage costs and higher transport costs.

It is also interesting to observe the gap in average prices not just by type of contract and customer size but also by consumption sector, as shown in Table 4.14.

An analysis of these figures (provisional, like the previous one) confirms our expectations as to trends and consumption volumes. Customers in the protected market tend to pay much more than those in the free market in the same consumption sector and with similar consumption profiles. Within the various consumption sectors, as customer size grows in terms of volumes consumed each year, prices tend to fall, to a higher degree in the case of free customers.

If we consider all consumption categories, the price differentials between protected and free customers within a given consumption sector tend to widen as we move from residential consumers to thermoelectricity producers, given the underlying, and parallel, increase in their average consumption. Indeed, a protected residential customer pays on average 6.3 c€/m^3 more than a free residential customer; a protected commercial customer 6.8 c€/m^3 more than a free one; a protected industrial customer 14.4 c€/m^3 more than their free counterpart; and lastly, a protected thermoelectricity producer (a small number of small- to medium-sized customers) pays 12.9 c€/m^{3}more than their counterpart on the free market.

Table 4.14 Retail prices by type of market, sector of consumption and customer size in 2009

c€/m^3

CONTRACT TYPE AND SECTOR	CUSTOMERS BROKEN DOWN BY ANNUAL CONSUMPTION CLASS (m3)					TOTAL
	< 5,000	5,000-200,000	200,000-2,000,000	2,000,000-20,000,000	> 20,000,000	
Residential	49.49	46.76	49.76	–	–	49.11
Commerce and services	50.02	46.33	42.95	40.62	–	47.42
Industry	42.65	46.44	38.79	34.73	–	45.14
Power generation	48.84	44.43	39.88	–	–	40.95
AVERAGE PRICE IN THE PROTECTED MARKET	49.49	46.60	46.35	34.61	–	48.85
Residential	41.04	44.77	42.85	36.63	–	42.78
Commerce and services	48.30	43.66	35.12	31.50	–	40.60
Industry	45.28	39.65	31.77	29.40	27.99	30.74
Power generation	42.48	34.63	34.99	30.55	27.86	28.04
AVERAGE PRICE IN THE FREE MARKET	43.81	42.17	32.97	29.70	27.89	30.88
TOTAL AVERAGE PRICE	49.00	44.30	33.45	29.72	27.89	36.58

Source: AEEG, from data provided by operators..

Customer satisfaction and management of complaints

The number of complaints, appeals and notifications handled and evaluated by the Authority from both individual customers and consumer associations rose by 51% in 2009. This confirmed the trend seen in previous years, albeit at a slightly reduced rate of increase.

Between 1 April 2009 and 31 March 2010, the Authority received a total of 16,791 communications of all types. Of these, 5,404 (about 33% of the total) concerned the gas sector. The amount of complaints received for this sector increased by 44%, again showing a lower rate of increase compared with 2008. The breakdown between complaints (89%), information requests (6%) and notifications (5%) essentially reflected that of 2008.

Of the complaints concerning the gas sector, 79% concerned two sales operators. The statistics do not include complaints about particular tariff problems or those submitted more than once by the same customer. Communications that are archived since they concern matters not within the Authority's remit are not recorded for statistical purposes; nor were the numerous information requests submitted and handled by phone or email.

Table 4.15 Communications received by the Authority on the gas sector

April 2009 – March 2010

	GAS SECTOR	TOTALS
Complaints	5,074	15,757
Requests for information	303	911
Notifications	27	123
TOTAL COMMUNICATIONS	5,404	16,791

Communications concerning the gas sector were far less numerous than those concerning electricity (about half). This can be explained by the smaller number of customers and the lower degree of market development. The lower number of complaints, particularly on supplier switching and the application of the Commercial Code of Conduct, is probably also due to the lower propensity to change supplier and to the smaller number of offerings on the market.

An analysis of the communications (Table 4.16) shows that the most recurrent concerned invoicing (42.3%), market issues (14.9%), contracts and commercial quality (10.5%), connections (10.5%), prices and tariffs (5.7%) and disconnections (3.7%). Comparison with the previous year shows an increase in communications on all topics, but particularly on billing, the market, prices and tariffs, and disconnections.

As regards billing, the most recurrent complaints concern, as for the electricity sector, consumption billed on account; failure to take readings or self-readings into consideration; mixed bills; adjustments; requests for corrections; and the timescale for issuing invoices. Communications about the market mainly concerned drawing up contracts in the free market; supplier switching; the proper presentation of offerings; double billing; and compliance with the Commercial Code of Conduct.

Table 4.16 Subjects of the communications received by the Authority over the last two years

SUBJECTS OF COMMUNICATIONS	PERIOD APRIL 2008-MARCH 2009		PERIOD APRIL 2009-MARCH 2010	
	NUMBER	%	NUMBER	%
Contracts & commercial quality	422	17.8	545	10.5
Billing	1,088	45.9	2,111	42.3
Connections	362	15.3	544	10.5
Prices and tariffs	32	1.4	298	5.7
Metering	36	1.5	197	0.3
Market	154	6.5	774	14.9
Disconnections	52	2.2	192	3.7

Turning to contracts and commercial quality, the main topics for complaint were: the contractual conditions applied; contractual variations such as transfers of contracts; exercising the right of withdrawal; payment defaults (non-payment and arrears); disconnections and re-connection times; and compensation and refunds. Communications about prices and tariffs mainly concerned the correct application of free market prices or tariffs.

Communications on gas meters and disconnections remained essentially stable, with some slight increases. The figures here do not include complaints on the application of VAT or, as mentioned earlier, on specific tariff issues. Other issues, largely related to safety, also featured but are not shown in Table 4.16. The figures shown in the Table reflect the fact that any one communication may touch on more than one of the topics listed.

4.2.3 Measures to avoid abuses of dominance

In 2009, the Antitrust Authority opened five investigations into some gas distribution companies (Italgas, Acea Distribuzione, A2A Reti Gas and A2A Reti Elettriche) for alleged abuse of a dominant position in the distribution of gas and electricity. This took the form of conduct likely to lessen the competitiveness of new entrants selling gas and electricity to residential and small business customers. Eni, Acea and A2A were alleged to have obstructed customers who so requested from transferring from the regulated to the free market, thus weakening the competitive position of Sorgenia, which operates only in the free market.

The AEEG itself adopted a number of measures to promote competition and the market. These included provisions to regulate access to the national gas pipeline network and establish the procedures for the creation of new import and export infrastructure as envisaged by the Ministry for Productive Activities in its Decree of 28 April 2006. New import infrastructure is, indeed, a fundamental prerequisite to enhance competitiveness in the national market.

As regards the wholesale market, the Authority defined the terms and conditions for competition procedures in accordance with art. 3 of Decree Law 78/2009, known as the

"Anti-Crisis" Law. Through these procedures, the Authority established the new gas release system. This is conducted under non-discriminatory criteria, with offers divided into batches at constant daily quantities throughout the delivery period. Lastly, the Authority laid down the rules governing the economic conditions envisaged by law for the sale of gas on the regulated market, as applicable to gas extraction operators and importers from non-EU countries (see infra).

We shall now examine these provisions in more detail.

Access to the national gas pipeline system in relation to new infrastructure – With Resolution ARG/gas 2/10 of 21 January 2010, the Authority defined the provisions regulating access to the national gas pipeline network and the procedures for the creation of new import and export infrastructure. These provisions reflect those of the Ministry for Productive Activities Decree of 28 April 2006.

The rules laid down by the Ministry govern pipeline network access for new import infrastructure. Specifically, they concern access subject to exemption from third-party access rules or to priority allocation rights under art. 1 paras 17 and 18 of Law 239 of 23 August 2004. The Ministry's provisions also envisage that operators interested in access for planned new import capacity should submit an application to the main transport company, which is required to initiate a procedure open to participation by all parties interested in creating new transport capacity in Italy for import or export purposes.

The Authority expressed its views on the adoption of the provisions of the ministerial decree in consultation document DCO 15/09 of 15 June 2009. Stakeholders were thus able to submit their own observations.

The views expressed in DCO 15/09 and the provisions subsequently set forth in Resolution ARG/gas 2/10 concern the arrangements for access applications, the subsequent open procedure and the allocation of the planned capacity, and related transport company obligations. Resolution ARG/gas 2/10 is a significant contribution to the definition of a reliable and non-discriminatory regulatory framework. Such a framework is necessary for the development of the natural gas system, the enhancement of the country's infrastructure and the progressive integration of the European market.

Gas release – With Resolution ARG/gas 114/09 of 7 August 2009, the Authority defined the conditions and arrangements for the competitive procedures referred to at Art. 3 of Decree law 78/2009. Through the procedures governed by this Resolution, ENI offered the market 5 billion cubic metres of gas for thermal year 2009-10.

The Authority established that gas release should be conducted under non-discriminatory criteria, with offers divided into batches at constant daily quantities throughout the delivery period. More specifically, it has provided for: annual batches (for delivery from October 2009 to September 2010) and six-monthly batches (for delivery from October 2009 to March 2010). Batch allocation procedures envisage a single price for each type of product.

One of the key innovations in the gas release system is that ENI's allowed charges should be independent of the sums paid by purchasers. These charges, differentiated by product type, proposed by the Authority and set by the Ministry for Economic Development, acted as a reserve price, i.e. the lowest price, below which the batches could not be sold. Any sum remaining between the amount paid by purchasers and ENI's allowed charge was

earmarked, as envisaged by Decree Law 78/2009, for consumers through a specific procedure defined by Resolution ARG/gas 114/09. This establishes the criteria, arrangements and terms through which customers can use these sums.

Provisions governing natural gas sales – With Resolutions ARG/gas 24/09 of 4 March 2009 and ARG/gas 108/09 of 30 July 2009, the Authority laid down the rules governing the economic conditions for the sale of gas on the regulated market. The rules in question were initially envisaged by art. 11 of Decree law 7 of 31 January 2007 and by the implementing ministerial decrees of 12 July 2007 and 19 march 2008. These concern, respectively, the sale of quotas of gas produced by extraction and quotas of imported gas. The Authority's provisions govern:

- the arrangements for quotas of gas yet to be offered under the competitive procedures referred to in Resolution ARG/gas 112/08 of 4 August 2008, by the end of thermal year 2008-09 (Resolution ARG/gas 24/09);
- the offer arrangements applicable to the quotas due to the state from each extraction concession-holder for 2008, and to the quotas of imported natural gas to be offered by the end of thermal year 2009-10 (Resolution ARG/gas 108/09).

These provisions do not contain significant innovations with respect to the arrangements laid down for previous offerings through Resolution ARG/gas 112/08, illustrated in last year's Annual Report.

5 SECURITY OF SUPPLY

5.1 Electricity

Peak demand in 2008 and outlook for 2010–15

In 2009 peak summer demand was again higher than the winter peak, but with a much narrower gap than the previous year: of just 709 as against 2,098 MW. This reflects the worsening of the economic crisis in the third quarter of 2008, with a collapse in electricity demand in November and December. In 2009, on the other hand, the effects of the economic recovery can be seen in the course of the year. More specifically, in July 2009, when the summer peak occurred, electricity demand was still 6% lower than in July 2008, while by December the gap (0.4%) had been greatly reduced. It is significant that both the summer and winter peaks in 2009 were significantly lower than those of 2008[13], a sign that the recovery was still only in its early stages.

The continuing uncertainty of the economic cycle makes it difficult to forecast peak demand. However, based on the trends of recent years, we can reasonably assume that the summer peak will grow more rapidly than the winter peak, at least in the medium-to-long term. TERNA's forecasts for 2015, shown in table 5.1, show a winter peak of 59.8 GW against a summer peak of 60.7 GW.

Table 5.1 also shows Terna's projections as to the most likely evolution of energy demand on the national network for each year, the basis used for the summer and winter peak projections. As the table shows, these projections do not envisage a return to 2007 levels any time before 2014. However, in an alternative scenario Terna also considers the possibility of overtaking the 2007 demand level as early as 2012, to reach 360 TWh in 2015. If this were the case, peak demand that year could reach 63 GW.

Table 5.1 Peak power demand, 2008–15

GW

	2008	2009	2010	2011	2012	2013	2014	2015
Electricity demand (TWh)	339.5	320.3	320.3	324.9	329.6	334.3	339.1	343.2
Peak power demand (GW)								
Average winter	53.2	51.2	56.1	56.5	56.9	57.4	57.8	59.8
Very hot summer	55.3	51.9	56.3	56.8	57.3	57.8	58.3	60.7

Source: Terna.

Table 5.2, showing the marked decline in projected peak demand over the last 4 planning years, illustrates the degree of uncertainty over developments in the electricity sector. This is related above all to doubts as to the performance of the economy and the international crisis.

[13] Summer peak of 51,873 MW, compared with 51,164, and winter peak of 51,164 compared with 53,194 MW.

Table 5.2 Annual peak power demand projections, 2006-10

GW

Year of projection	Year of peak						
	2009	2010	2011	2012	2013	2014	2015
Average winter							
2006	60.5	62.1	64.0				
2007	60.4	61.7	63.0	64.4			
2008	59.6	61.0	62.4	63.9	65.4		
2009	57.3	58.5	59.7	61.0	62.3	63.5	
2010		56.3	56.8	57.3	57.8	58.3	60.7
Very hot summer							
2006	61.9	64.0	65.9				
2007	61.6	63.2	64.9	66.6			
2008	60.3	62.0	63.7	65.4	67.2		
2009	57.7	59.1	60.5	62.0	63.6	65.0	
2010		56.3	56.8	57.3	57.8	58.3	60.7

Source: AEEG, from Terna data.

Generating capacity in 2009

In 2009, the increase in generating capacity that started in 2004-05 continued, but at a lower rate than the previous year. Net installed power at the end of 2009 amounted to 102.2 GW, compared with 99.3 GW the previous year.

Table 5.3 Net generating capacity 2003-09

MW; data refer to 31 December of each year

	2003	2004	2005	2006	2007	2008	2009
Hydroelectric	20,660	20,744	20,993	21,072	21,117	21,276	21,371
Thermoelectric[(A)]	56,047	58,990	62,164	65,797	69,022	73,394	74,055
Geothermal	665	642	671	671	671	711	737
Wind	877	1,135	1,642	1,908	2,714	3,538	4,898
Photovoltaic	7	7	7	7	87	432	1,142
Total	78,256	81,518	85,477	89,455	93,611	99,349	102,203

(A) Includes generation from biomass and waste

Source: Terna.

Table 5.3, which provides a breakdown of capacity by type of generation, shows a notable change in the relative role played by the different types of plant in capacity growth. Unlike previous years, the greatest capacity increase came from wind-powered plants. Thermoelectric plants dropped to third place, behind wind (48%) and photovoltaic (25%), whose overall installed capacity has now overtaken that of geothermal plants. The last-named did, however, increase slightly over previous years.

As a whole, the structure of generating capacity has not changed much from previous years, remaining dominated by thermal and hydroelectric plants, with respectively 72%

and 20% of the total. Wind power accounts for nearly 5% of installed power, while photovoltaic now exceeds 1%.

Peak power availability

With the continuing expansion in electricity generating capacity over the last few years, power availability at the peak has increased substantially. The power deficits of 2003 and 2004 have given way to surpluses that have increased over the years. However, the strong surpluses of 7.9 GW and 12.6 GW shown in table 5.4, for 2008 and 2009 respectively, are misleading, since they were mainly determined by the strong falls in peak demand, down 2.7% and 8.7% with respect to the peak reached in 2007.

The power currently available would be enough to cover the peak demand forecast by Terna for 2015 and give a surplus of 3.8 GW. However, considering the uncertain outlook for electricity demand in coming years, the system is at risk of a deficit unless an additional 5-7 GW at least of thermoelectric power are installed in the coming 5 years, taking into account the lower capacity of wind and photovoltaic plants[14].

Table 5.4 Peaking capacity in 2003-09

GW

	2003	2004	2005	2006	2007	2008	2009
Net capacity	78.3	81.5	85.5	89.5	93.6	99.3	102.2
Hydroelectric	20.7	20.7	21.0	21.1	21.1	21.3	21.4
Conventional thermoelectric	56.0	59.0	62.2	65.8	69.0	73.4	74.1
Geothermal	0.7	0.6	0.7	0.7	0.7	0.7	0.7
Wind and photovoltaic	0.9	1.1	1.6	1.9	2.8	4.0	6.0
Peaking capacity	49.7	52.8	56.3	58.1	60.4	63.2	64.5
Hydroelectric	13.5	13.6	13.7	13.8	13.8	13.9	14.0
Conventional thermoelectric	35.5	38.4	41.6	43.2	45.4	47.8	48.5
Geothermal	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Wind and photovoltaic	0.2	0.3	0.4	0.5	0.7	0.9	1.4
Peak demand	53.4	53.6	55.0	55.6	56.8	55.3	51.9
Power surplus/deficit	-3.7	-0.9	1.3	2.5	3.6	7.9	12.6

Source: AEEG, from Terna data.

Electricity balance in 2009

In 2009 electricity demand amounted to just 320.3 kWh, 5.7% lower than 2008 and less even than consumption in 2003 (Table 5.5). This decline, coming after the barely perceptible one of 2008 (0.1%), is unprecedented in size, at least in the last 6 decades. The

[14] Taking Terna's projections prior to the collapse in consumption in 2008-09, the peak power requirement could approach 65 GW in 2015. Moreover, the capacity of wind and photovoltaic plants is about one third that of thermoelectric plants, given the intermittent nature of their sources, which depend on weather conditions.

negative trend in consumption, which started in the last quarter of 2008, reached its sharpest intensity in the second quarter of 2009. It gradually slowed over the next two quarters, and reversed in the last month of the year.

The strongest fall in consumption was seen in the industrial sector, which saw a collapse of 13.7% – a drop unprecedented in the last 40 years of the 20th century. Electricity consumption increased, however, in the residential sector (by 0.8%) and in the service sector (by 1.3%)

Table 5.5 Electricity balance 2003 – 2009

TWh

	2003	2004	2005	2006	2007	2008	2009
Gross production	293.9	302.9	303.7	314.1	313.8	319.1	292.6
Conventional thermoelectric	*239.2*	*241.6*	*248.2*	*256.9*	*260.3*	*255.4*	*219.0*
Solid fuels	*35.2*	*41.0*	*38.8*	*38.9*	*38.7*	*37.1*	*32.1*
Natural gas	*117.3*	*129.8*	*149.3*	*158.1*	*172.6*	*172.7*	*147.3*
Oil products	*65.8*	*47.3*	*35.8*	*33.8*	*22.9*	*19.2*	*15.9*
Other sources	*20.9*	*23.6*	*24.4*	*26.0*	*26.1*	*26.4*	*23.7*
Hydroelectric	*44.3*	*49.5*	*42.9*	*43.4*	*38.4*	*47.2*	*53.4*
Natural water sources	*36.7*	*42.3*	*36.1*	*37.0*	*32.8*	*41.6*	*49.1*
Pumped storage	*7.6*	*7.2*	*6.9*	*6.4*	*5.6*	*5.6*	*4.3*
Other renewables	*10.4*	*11.8*	*12.5*	*13.8*	*15.1*	*16.5*	*20.2*
Geothermal	*5.3*	*5.4*	*5.3*	*5.5*	*5.6*	*5.5*	*5.3*
Biomass and waste	*3.6*	*4.5*	*4.8*	*5.3*	*5.4*	*6.0*	*7.6*
Wind and photovoltaic	*1.5*	*1.9*	*2.3*	*3.0*	*4.1*	*5.1*	*7.2*
Ancillary services	13.7	13.3	13.1	12.9	12.6	12.1	11.5
Net production	280.2	289.6	290.6	301.2	301.2	307.1	281.1
Energy for pumped storage	10.5	10.3	9.3	8.8	7.7	7.6	5.8
Energy for consumption	269.7	279.3	281.3	292.5	293.6	299.4	275.3
Net imports	51.0	45.6	49.2	45.0	46.3	40.0	45.0
Imports	*51.5*	*46.4*	*50.3*	*46.6*	*48.9*	*43.4*	*47.1*
Exports	*0.5*	*0.8*	*1.1*	*1.6*	*2.6*	*3.4*	*2.1*
Electricity demand on the grid	320.7	325.0	330.4	337.5	339.9	339.5	320.3

Source: Terna.

In line with the fall in consumption, thermoelectric generation dropped sharply (by 8.5%). This was replaced in part by a growth in imports (of 12.3%) and to a greater extent by hydroelectric production (up 18.1%, from natural water sources) and other renewables (up 22.1%). Generation from renewable sources (excluding pumped storage) accounted overall for 23.7% of gross generation. Taking the thermoelectric sources, generation from oil products suffered most (down 17.3%), followed by methane (down 14.7%) and coal (down 13.1%). Generation from oil product residues saw a lesser fall (of 9.9%).

New generating capacity 2009-14

At the end of 2009, new thermoelectric fossil fuel plants with a total capacity of 7,913 MW had been authorised, of which plants producing 2,585 MW are scheduled to begin operating in 2010 and the remaining 5,328 MW in 2011 and 2012. Moreover, over 50 plants with a total capacity of about 22,700 MW were being evaluated; these could begin operating from 2013 onwards. This does not include the capacity of existing plants, for which the replacement of generating units, conversion to other fuels or other types of up-grade are envisaged. The regional distribution of these plants, shown in Table 5.6, reveals a greater concentration of new capacity in the regions of southern Italy, as in the past.

Table 5.6 Thermoelectric power authorised and under evaluation at the end of 2009

MW

	In operation 2010-2012	Under evaluation
North	3,030	9,536
Piedmont	650	1,750
Valle d'Aosta	0	0
Lombardy	2,380	2,806
Trentino Alto Adige	0	0
Veneto	0	2,330
Friuli Venezia Giulia	0	400
Liguria	0	460
Emilia Romagna	0	1,790
Centre	1,377	2,430
Tuscany	0	250
Umbria	0	800
Marche	0	580
Lazio	1,377	800
South and Islands	3,506	10,700
Abruzzi	0	980
Molise	0	1,180
Campania	1,548	2,230
Puglia	1,158	2,250
Basilicata	0	1,550
Calabria	800	2,510
Sicily	0	0
Sardinia	0	0
Italy	7,913	22,666

Source: Ministry for Economic Development

Many of these plants are experiencing considerable delays with respect to both the date of the original application and the date of authorisation. The difficulties encountered during the evaluation procedures arise partly from the time required to perform the necessary, and complex, environmental assessments. Obtaining consensus at the local level is another source of delays; this applies specifically to agreements with the regional authorities, a vital step in achieving authorisation. Difficulties affecting the construction stages of

authorised projects can be put down to the growing number of appeals against the plants, with resulting delays in beginning construction work and consequently in starting operations.

No reliable information is available on new installed power other than fossil fuel plants expected to begin operating in coming years. The only information available concerns applications for network connections or projected incentives for renewable sources. For wind power, grid connection applications amount to over 40 GW. However, most of the approximately 900 plants have not yet obtained a permit or else those proposing the projects have not yet made the necessary economic commitments to cover connection costs. For solar photovoltaic energy, a decree currently awaiting approval envisages incentives, gradually decreasing over time, totalling 3 GW over the next three years.

Table 5.7 illustrates the development potential of the different renewable sources. New installed capacity in 2009 alone amounts to 2.6 GW, more than double the total capacity installed in the entire period running from 2003 to 2008 (5.6 GW).

Table 5.7 Installed capacity since 2002

MW

	Thermoelectric		Wind		Photovoltaic		Biomass and waste		Hydroelectric		Total	
	2002 2008	2009	2002 2008	2009	2002 2008	2009	2002 2008	2009	2002 2008	2009	2002 2008	2009
North	8,580	1,050	34	32	202	281	361	140	719	82	9,895	1,584
Piedmont	2,290	250	13	13	33	49	26	4	264	20	2,625	335
Valle d'Aosta	0	0	0	0	0	1	1	0	37	0	38	1
Lombardy	3,720	0	0	0	50	77	99	51	263	32	4,132	160
Trentino Alto Adige	0	0	3	0	34	30	6	5	120	8	162	42
Veneto	0	0	1	1	29	50	48	5	20	1	99	57
Friuli Venezia Giulia	760	0	0	0	13	16	8	0	-2	17	779	33
Liguria	150	0	14	5	4	4	9	3	3	2	179	15
Emilia Romagna	1,660	800	4	13	40	55	164	72	14	2	1,882	941
Centre	730	627	52	8	95	141	30	52	44	3	952	831
Tuscany	540	0	42	8	29	26	-19	42	26	5	618	80
Umbria	190	0	2	0	18	16	8	2	3	-1	221	17
Marche	0	0	0	0	25	37	8	2	14	2	47	42
Lazio	0	627	9	0	23	62	33	6	1	-3	66	692
South and Islands	8,070	2,280	3,651	1,321	135	289	272	272	40	13	12,168	4,174
Abruzzi	800	760	170	36	10	15	5	1	2	0	987	812
Molise	750	0	188	74	1	7	16	0	6	0	961	81
Campania	1,200	250	688	145	16	16	28	160	1	10	1,932	581
Puglia	2,290	0	946	290	53	162	109	44	-1	0	3,397	496
Basilicata	0	0	209	18	5	25	17	8	0	1	231	52
Calabria	2,400	800	188	252	18	11	86	-4	4	2	2,695	1,062
Sicily	550	470	795	353	17	27	14	6	0	0	1,376	857
Sardinia	80	0	467	153	16	26	-2	56	28	0	589	235
Italy	17,380	3,957	3,736	1,360	432	711	664	463	803	98	23,015	6,589

Source: Terna.

State of network operation, security and quality

Network overloads in the North and Centre-North of the country persisted, as did the interruptions in supply seen in the South in previous years. The solutions to the problems, as described in some detail in the Report in 2009 and previous years, has been held back by delays in works to upgrade transmission line capacity and/or transformer capacity in VHV/HV stations. One example suffices for all: the Sorgente–Rizziconi line linking Calabria and Sicily. The application dates back to autumn 2006, while the authorisation to start construction work was only signed in July 2010 – after 42 wearying months of assessments, negotiations and appeals of every kind.

Main projects on the transmission grid

Terna's investment programme for 2010-14 on lines that are critical to the security and efficiency of the national grid is shown in Table 5.8. The years of highest expenditure are shown in dark grey.

Table 5.8 Investment plans on transmission lines of critical importance to the national electricity system

Transmission line	Investment cost (millions of €)	Percentage of investment spent in the period						
		Before 2010	2010	2011	2012	2013	2014	2015 & after
National grid	2,680							
SAPEI (Sardinia–Mainland link)	750	68						0
Sorgente–Rizziconi (Calabria–Sicily link)	710	7						40
Dolo–Camin–Fusina (Veneto)	200	4						54
Santa Barbara–Casellina (Tuscany)	140	51						12
Chignolo Po–Maleo (Lombardy)	90	11						0
Automatic voltage regulators–Turin (Piedmont)	110	19						8
Paternò–Priolo (Sicily)	90	28						0
Colunga–Calenzano (Tuscany–Emilia Romagna)	160	2						93
Foggia–Benevento (Puglia–Campania)	130	5						59
Udine Ovest–Redipuglia (Friuli)	100	3						94
Dorsale Adriatica (Marche–Abruzzo–Puglia)	200	5						87
Interconnectors	1,060							
Italy–Montenegro	760	0						23
Italy–France	300	0						80

Source: Terna.

The table also shows the planned investment for the Italy–France and Italy–Montenegro interconnectors. Completion of the programme on schedule will be a highly important advance in terms of transmission service quality and the elimination of congestion in the areas currently experiencing most problems (shown in brackets). It should be noted that at the end of the strategic plan's 5-year duration only 3 transmission lines will be operating, with 34% of the investment still to be completed on the national grid and 39% on interconnectors. To step up the pace of investment, the Authority has introduced a

monitoring mechanism that will enable Terna to bring forward the incentive returns to the construction phase rather than the project completion and operational stages.

A number of other investments on high-voltage lines of relatively lower importance are currently awaiting authorisation or, having been authorised, are at various stages of construction. Of the latter, the most significant to the stability of the national grid are:

- the rationalisation of the Val d'Ossola North and South section of the National Transmission Grid;
- the construction of the 380 kV Ittiri–Codrongianos line;
- the completion of the Isola d'Elba loop – reconstruction of the 132 kV S.Giuseppe–Portoferraio line;
- the up-grade to the HV National Transmission Grid in the Lucca area;
- The reconstruction of the 220 kV Avise–Villeneuve line.

5. 2 Gas

Gas consumption in 2008 and projected demand in subsequent years

As was to be expected, the economic collapse of 2009 reflected heavily on natural gas consumption. It resulted in a significant fall in consumption, production and imports/exports (Table 5.9).

Table 5.9 Natural gas balance 2004-09

G(m^3)

		2004	2005	2006	2007	2008	2009
1	Production	12.97	12.07	10.98	9.71	9.19	7.96
2	Imports	67.27	73.46	77.40	73.95	76.31	68.77
3	Exports	0.12	0.40	0.37	0.07	0.21	0.12
4	Change in stocks	-0.12	-1.13	3.53	-1.31	1.02	-0.88
5	Available for internal use (1+2-3-4)	80.24	86.27	84.48	84.90	84.27	77.48
6	Energy sector consumption and losses	-0.94	-1.01	-1.00	-1.54	-1.48	-1.35
7	Transformation into electricity	-28.03	-30.65	-31.54	-34.29	-33.66	-28.36
8	Total final uses (5+6+7)	51.27	54.61	51.94	49.07	49.13	47.77
	- industry	21.29	20.57	19.90	19.16	17.49	14.85
	- transport	0.48	0.47	0.53	0.59	0.67	0.73
	- civil uses	28.24	32.15	30.17	28.18	29.96	31.34
	- agriculture	0.16	0.21	0.18	0.19	0.17	0.17
	- chemical synthesis	1.09	1.21	1.16	0.94	0.84	0.69
	- bunkering	0.00	0.00	0.00	0.00	0.00	0.00

Source: Ministry for Economic Development.

Of particular impact was the collapse in consumption for electricity generation (down 15.7%), which was even more severe than the fall in generation from oil products (down 8.9%). This was essentially because of the lag in the fall of the natural gas price from its 2008 peak with respect to oil and coal. The fall in consumption was equally marked in the industrial sector (down 15.2%), while the civil sector saw a significant increase (of 4.6%) in view of the very cold winter. Consumption for transport also saw an appreciable increase (up 9.3%), although the sector is still of low importance in absolute terms.

The fluctuations in natural gas requirements over the last five years, combined with the effects of the economic crisis, make it difficult to forecast the recovery in consumption. Operators are predicting a slow upturn starting this year, with the record peak of 2007 not being reached until 2013. In 2015, natural gas should overtake oil as Italy's leading energy source (Table 5.10).

Table 5.10 Natural gas requirements in 2005–09 and projections to 2015

G(m^3)	2005	2006	2007	2008	2009	2013	2015
Available for domestic consumption	86.3	84.5	84.9	84.3	77.5	84.7	88.0

Source: AEEG from Snam Rete Gas data.

Domestic production in 2009, and outlook

Natural gas production in 2009 fell by 13.4% to just under 8.0 billion m^3, the largest ever drop and one that takes Italy back to 1965 levels.

The Report on hydrocarbon exploration, research and extraction in Italy published each year by the National Office for Hydrocarbons and Geothermal Energy (UNMIG) was not ready at the end of July 2010. It was not therefore possible to update for 2009 the information on which we generally comment in this report. This includes permits, number of wells, metres drilled, recoverable reserves and reserves/production ratio: all indicators that enabled us to evaluate future production trends.

From the sharp drop in production in 2009, however, we can assume that no significant changes have occurred in the decline in production activity seen over the last decade.

Gas imports in 2009

The sharp fall (of 8.0%) in demand for gas for domestic consumption in 2009 was reflected in an even sharper fall (of 9.9%) in imports as a result of withdrawals from underground storage (Table 5.11). In 2009, 81,3% of Italy's gas imports came from 4 non-EU countries (Algeria, Russia, Libya and Qatar). However, another 6 countries also contributed to our imports, the result being a good degree of diversification, with an HHI index of 2,500. With the LNG terminal off the coast at Rovigo coming fully on-stream in the second half of 2009, the index should continue to fall in 2010, to around 2,200.

Table 5.11 Gas imports by country of origin, 2002-09

M(m^3) at 38.1 MJ/m^3

	2002	2003	2004	2005	2006	2007	2008	2009
Algeria	24,158	24,561	25,632	27,464	28,169	24,584	25,992	22,711
Russia	20,713	21,688	23,624	23,326	22,520	22,667	22,278	22,917
Libya	0	0	521	4,493	7,692	9,241	9,872	9,168
Netherlands	7,825	7,630	8,074	8,040	9,372	8,038	9,416	7,213
Norway	4,884	5,030	5,190	5,723	5,745	5,581	6,277	4,809
Qatar	0	0	0	0	0	0	0	1,550
Others	1,711	3,886	4,866	4,414	3,901	3,839	3,032	907
Total	59,291	62,794	67,908	73,460	77,399	73,950	76,867	69,275
HHI Index	3,125	2,944	2,848	2,633	2,478	2,383	2,369	2,506

Source: Ministry for Economic Development.

Import capacity in 2009 and short-term forecasts

Table 5.12 shows firm import capacity (by sea and by pipeline) in recent thermal years and projected available capacity for thermal year 2010-11.

Allocable capacity via pipeline rose from 289.8 M(m^3)/day in thermal year 2008-09 to 296.2 M(m^3)/day, an increase of 2.2%.

Compared with available capacity in thermal year 2008-09, last year saw an increase of 6 million m^3/day in allocable capacity at Tarvisio as a result of the completion of ENI's up-grades to the TAG. Gela saw an increase of 800,000 million m^3/day with effect from April 2010, thanks to the current up-grade programme on the pipeline from Libya. By the end of 2011 a further expansion of the Greenstream pipeline is planned, bringing capacity up to 11.53 billion m^3/year.

Table 5.12 Firm import capacity

M(m^3)/day

Entry point	Thermal year						
	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
By pipeline	248.7	251.1	271.4	272.3	289.8	296.2	296.2
Tarvisio	88.2	88.3	100.9	100.9	101.0	107.0	107.0
Gorizia	1.0	2.0	2.0	2.0	2.0	2.0	2.0
Passo Gries	57.5	57.5	57.5	57.8	59.4	59.0	59.0
Mazara del Vallo	80.5	80.5	86.0	86.0	99.0	99.0	99.0
Gela	21.5	22.8	25.0	25.6	28.4	29.2	29.2
By sea	11.4	13.0	13.0	13.0	13.0	39.4	36.2
Panigaglia	11.4	13.0	13.0	13.0	13.0	13.0	9.8
Rovigo	0.0	0.0	0.0	0.0	0.0	26.4	26.4
Total	260.1	264.1	284.4	285.3	302.8	335.6	332.4

Source: AEEG, from Snam Rete Gas data.

Now that the Rovigo terminal has begun operating, import capacity by ship has almost tripled. However, a slight fall can be expected in thermal year 2010-11 as a result of maintenance works on one of the 4 vaporisers at the Panigaglia facility. It should also be noted that all available capacity at the Panigaglia terminal has been allocated to GNL Italian (ENI group). Capacity at Rovigo (connected to the network at Cavarzere) is entirely reserved for Terminale GNL Adriatico until thermal year 2032-33. An exception to this is a 5.4 M(m^3)/day quota which will be made available to competition with effect from 2015-16 in accordance with Law 239 of 23 August 2004, European Directive 55/03/EC and AEEG Resolution 168/06 of 31 July 2006.

Overall, import capacity by pipeline and sea has increased by about 25% over the last 5 years, from 264 M(m^3)/day in thermal year 2005-06 to 332 M(m^3)/day in 2010-11. In its strategic plan for 2010-13, Snam Rete Gas envisages a further increase to about 380 M(m^3)/day in 2013 and 415 by 2015.

New import pipelines

Progress has been made on all the new import pipelines, the main features of which are shown in Table 5.13.

As regards the Trans Adriatic Pipeline (TAP) linking Greece to Italy through Albania for gas imports from the Caucasus and the Middle East, the sea-bed survey began in January 2009. In July, a survey began in Albania to decide which of the 5 possible routes was the optimal one. In mid-March, TAP submitted an application to the Authority for Electricity and Gas for inclusion in the national transport network of the 15-km stretch on *terra ferma* to enable the company to complete all the application procedures for the necessary permits. Finally, an intergovernmental agreement is being drawn up between Greece, Albania and Italy to open a procedure to obtain exemption from third-party access requirements.

Table 5.13 Planned new pipelines

Project	Nominal capacity (G(m^3)/year)	Length (km)	Entry point	Date of Feasibility Study	Scheduled Start-date
IGI	8-10	212	Otranto (BR)	2005	2015
Galsi	8	940	Iglesias (CA)	2005	2014
TAP	10-20	520	Brindisi (BR)	2006	2015
TGL	11.4	290	Malborgetto (UD)	Planning stage	2015
Italy – Austria Interconnector	1.3	48	Bressanone (BZ)	In progress	-
Total	38.7– 50.7	-	-	-	-

Source: Ministry for Economic Development.

2009 also saw progress on the IGI Poseidon project to extend the ITGI pipeline connecting Greece and Turkey to Italy, for gas imports from the Caspian Sea. More specifically, in April, the tender for project and planning verification and certification was opened. In November the Italian and Turkish authorities signed a joint declaration to confirm their

commitment to support the initiative, with the Turkish government ensuring guaranteed transit conditions to safeguard competitiveness.

In March 2010 IGI Poseidon signed an agreement with Bulgarian Energy Holding to construct a Bulgarian link with a capacity of 3-5 G(m^3)/year. The same month, the European Commission approved funding of 100 million euros plus 45 million for the Bulgaria-Greece interconnection. Lastly, the operational stage started in early April 2010 with the opening of the tender for the supply of the pipes themselves.

A final decision on the GALSI pipeline, connecting Algeria and Italy via Sardinia, was originally expected by mid-2009 but has been postponed to 2010. In November 2009 a new schedule was drawn up. This envisaged work starting in the second half of 2010, the first pipes being laid in 2011 and the first gas arriving from Algeria in 2014. The delay with respect to the initial starting date of 2012 was caused mainly by changes in the route made necessary by risky geological situations found in the stretch linking Sardinia and Tuscany. Further delaying factors were the discovery of archaeological remains during the excavations and the state of the economy. In March 2010 this project too received European funding, of 120 million euros.

Finally, in 2009 the companies behind the TGL pipeline submitted to the Austrian regulator their applications for exemption from third-party access requirements and for the tariff method to be established. The TGL will run for 260 km over Austrian territory from the Italian to the German border and enable flows in both directions. The final decision on the project is expected by the end of 2010, with the pipeline coming on-stream in 2015.

New liquefied natural gas terminals

2009 brought significant developments with respect to previous years for new LNG regasification projects. These are summarised in Table 5.14.

First was the start of commercial operations, in November 2009, at Terminale GNL Adriatico's offshore terminal at Porto Levante (Rovigo). Other projects seeing important advances were the Porto Empedocle (Agrigento), Livorno and Gioia Tauro (Reggio Calabria) terminals. The planned terminal at Brindisi also saw progress, although the long story of this element of Italy's energy infrastructure is not yet finished.

Problems were encountered by the regasification projects at Rosignano (Livorno), Taranto and Zaule (Trieste). Of the new projects at the most advanced state of progress, the Porto Empedocle terminal stands out: the tender selection process is nearing completion, with work scheduled to start in 2011.

Table 5.14 New liquefied natural gas terminals

Project	Location (Province)	Capacity G(m³)/year	Project Promoters	Scheduled Start-date	State of Progress
Porto Levante offshore	Rovigo	8	GNL Adriatico (Edison – ExxonMobil – Qatar Petroleum)	2009	Began operating second half of 2009
Brindisi	Brindisi	8	Brindisi LNG (British Gas Italia)	NA	New environmental impact assessment opened; positive outcome.
Toscana offshore	Livorno	3,75	OLT LNG (Endesa Italia, Iride, Asa, OLT Energy	2011	Awaiting decision on total exemption from third-party access for a period of 20 years
Rosignano	Livorno	8	Edison, BP, Solvay	NA	Authorisation process still in progress. Unfavourable EIA opinion delivered by Tuscany Region, in spite of previous positive opinion.
Gioia Tauro	Reggio Calabria	12	LNG MedGas (Cross Gas, Sorgenia, Iride)	2014	Favourable EIA in September 2008; protocol of understanding with local authorities in May 2009; Utilities and Services Committee in December 2009.
Taranto	Taranto	8	Gas Natural Internacional	NA	Unfavourable opinion delivered by the EIA Regional Committee and by the Regional Cabinet (Giunta Regionale) in July 2008.
Trieste Zaule	Trieste	8	Gas Natural Internacional	2013	EIA decree positive; project opposed by municipalities concerned and by the Slovenian Government.
Trieste offshore	Trieste	8	Endesa Italia	NA	Investigation on new location now in progress.
Porto Empedocle	Agrigento	8	Nuove Energie (Enel)	2013	Utilities and Services Committee gave favourable opinion in January 2009; all construction permits granted; tender for construction works nearing completion.
Rada di Augusta	Siracusa	8	Erg Power & Gas – Shell Energy Italia	2014	Favourable opinion with conditions delivered by EIA Regional Committee; project opposed by municipalities concerned; appraisal by Utilities and Services Committee opened in July 2009.
Ravenna	Ravenna	8	Gruppo Belleli	NA	Under examination by the Ministry for Economic Development.
Porto Recanati offshore	Ancona	5	Gaz de France	NA	Favourable EIA opinion from the Utilities and Services Committee and feasibility clearance given in November 2009.
Portovenere	La Spezia	8	GNL Italia (ENI)	2014	Unfavourable opinion delivered by Municipality of Portovenere and the EIA Regional Committee; Favourable opinion from the Utilities and Services Committee in November 2009.
Total		101			

Source: Ministry for Economic Development.

The storage system in 2009-10 and new concessions

In thermal year 2009-10 the Italian storage system had a working gas capacity of 14.3 G(m^3), an increase of about 400 M(m^3) on the previous thermal year (Table 5.15).

The capacity allocated to strategic storage amounts to 5.1 G(m^3). This figure is established by the Ministry for Economic Development on the basis of: import programmes from non-EU Countries as notified by storage users; the status of import infrastructure; and injections into and withdrawals from storage facilities in previous winters.

The capacity available for upstream production activities, modulation and balancing of the transmission network amounted to 9.2 G(m^3), an increase of 400 M(m^3) on thermal year 2008-09.

Peak daily availability of gas for upstream production and modulation services, calculated at the end of the delivery season for modulation gas, was 152 M(m^3), a figure that has not changed over the last five years.

Table 5.15 The storage system

Space in M(m^3) and peak availability in M(m^3)/day

	Thermal year				
	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
Space	13,019	13,549	13,582	13,918	14,335
for strategic storage	5,100	5,100	5,100	5,100	5,100
for active reserve	7,919	8,449	8,482	8,818	9,235
Peak capacity at end of season	152	152	152	152	152

Source: AEEG, from Edison Stoccaggio and Stogit data.

The annual increases in the reserve shown in Table 5.15 can be explained mainly by the increase in maximum storage pressure. Indeed, new storage facilities are not likely to be created before 2012, although significant progress has been made.

The authorisation procedure for the San Potito–Cotignola project was completed in late April 2009. Once the Ministry for Economic Development granted the concession, work began on converting the two reservoirs, with the facilities expected to begin operating in 2013. Once up and running, they will enable an increase in capacity for modulation, upstream production and transmission network balancing of about 900 M(m^3) and in peak deliverability of 7 M(m^3)/day. Moreover, as can be seen from Table 5.16, the Cornegliano (LO), Cugno Le Macine–Serra Pizzuta (MT), Sinarca (CB), Bagnolo Mella (BS), Palazzo Moroni (AP) and Rivara (MO) projects have also moved forward with respect to last year.

Table 5.16 Status of storage concessions in June 2010

Project Location (Province)	Working gas M(m^3)	Peak Deliverability M(m^3)/day	Awardee	State of progress
Alfonsine (RA)	1,550	10.0	Stogit	Authorised but start-up has met with some technical and environment impediments.
Bordolano (CR, BG)	1,440	20.0	Stogit	Favourable EIA; authorisations obtained.
Cornegliano (LO)	1,010	16.5	Ital Gas Storage	Favourable EIA; Services and Utilities Committee appraisal November 2009
Cotignola–San Potito (RA)	915	7.2	Edison Stoccaggio, Blugas Infrastrutture	Construction work started in April 2009.
Cugno le Macine–Serra Pizzuta (MT)	742	6.6	Geogastock	Favourable opinion received from EIA Committee; Services and Utilities Committee appraisal November 2009
Palazzo Moroni (AP)	70	0.8	Edison Stoccaggio	Under study; favourable opinion received from the Hydrocarbons and Mineral Resources Commission.
Sinarca (CB)	324	3.3	Gas Plus Storage and Edison Stoccaggio	Favourable opinion received from EIA Committee; awaiting appraisal by Services and Utilities Committee
Poggiofiorito (TE)	160	1.7	Gas Plus Storage	Definitive documentation for EIA not yet presented.
Bagnolo Mella (BS)	NA	NA	Edison Stoccaggio and Retragas	Favourable opinion received from the Hydrocarbons and Mineral Resources Commission; EIA application submitted May 2009.
Piadena Est (CR)			Blugas Infrastrutture	Under study; favourable opinion received from the UNMIG(*) Commission.
Romanengo (CR, BG)			Enel Trade	Under study; favourable opinion received from the Hydrocarbons and Mineral Resources Commission.
Rapagnano (AP)			Not awarded	Project not yet awarded
San Benedetto (AP)	500		Gas Plus Storage, Acea, Gaz de France	Under study; favourable opinion received from the UNMIG(*) Commission.
Rivara (RA)	3,000	32.0	Independent Gas Management	Under study; opposed by municipalities concerned; EIA not approved; further documentation requested.
Total	9,711	98.1		

(*) UNMIG is the National Office for Mining, Hydrocarbons and Geothermal Energy.

Source: Ministry for Economic Development.

Supply/demand balance in the short to medium term

Considering the economic crisis and the accompanying reduced demand for natural gas, and the import capacity expansion currently underway in Italy, it is difficult to imagine supply problems emerging over the next few years except in the case of long term supply interruptions by the main suppliers (Algeria and Russia).

6 PUBLIC SERVICE ISSUES AND CONSUMER PROTECTION

In 2009 the Authority for Electricity and Gas continued in its work of achieving increased protection for consumers and users in both the electricity and gas markets.

More specifically, the Authority's regulatory activity has focused on concretely strengthening the ability of end users to make informed choices from the various commercial offerings on the market. Another goal is to gradually harmonise and standardise the regulation of commercial aspects of the sector, while respecting the structural differences between the electricity and gas sectors.

No significant changes were made in 2009 to the obligations that companies operating in the gas and electricity markets are required to meet.

Retail supplies to the electricity market

Law 125/07, which implemented a number of provisions of EC Directives 55 and 54 of 2003, imposed the legal unbundling of electricity retailers and distributors with more than 100,000 customers (11 out of a total of 146).

In 2007 the conditions for administrative and accounting unbundling were defined, while 2008 saw the publication of the *Guidelines for the procedures to be followed in matters concerning unbundling*. In 2009, the Authority published a consultation document to amend the administrative and accounting unbundling procedures and to up-date the above-mentioned guidelines, following the decisions of the Council of State and the Regional Administrative Court (TAR) annulling the relevant Authority Resolutions (see section 3.1.3).

No authorisation is required in Italy to engage in electricity sales. However, to help consumers become better informed, in June 2007 the Authority began to publish a list on its website of sales companies meeting certain reliability requirements. Inclusion in the list is voluntary.

In providing for full liberalisation of the electricity market, Law 125/07 also established an "enhanced protection regime" (*servizio di maggior tutela)* for domestic customers and small low-voltage businesses. The service benefits from protected supply conditions (in terms of quality and equitable prices) set by the Authority. Law 125/07 also introduced a "safeguard regime" (*servizio di salvaguardia*) for non-domestic low-voltage medium-sized customers and medium-voltage customers opting not to choose a supplier on the liberalised market. The safeguard regime envisages a "supplier of last resort" selected by the Ministry for Economic Development through competitive bidding procedures.

In 2009, based on the surveys conducted by the Authority, there were 140 retailers operating under the "enhanced protection regime" and 200 operating on the liberalised market.

All customers not eligible for the enhanced protection regime and who, even temporarily, find themselves without an electricity sales/purchase contract in the free market have access to the safeguard regime. Since 1 May 2008, the service has been provided by sales

operators selected through auctions (with 3 operators providing the supplier of last resort service in 12 geographical areas):

- Exergia, for the following areas: Trentino-Alto-Adige, Veneto and Friuli-Venezia-Giulia; Emilia Romagna;
- Enel Energia, for Piedmont, Val d'Aosta and Liguria; Lombardy; Sardinia; Campania; Lazio, Abruzzo and Molise; Puglia and Basilicata; Calabria; Sicily;
- Hera Comm, for Tuscany, Umbria, Marche.

Retail supplies to the natural gas market

Requirements for the supply of natural gas to the retail market in 2009 remained unchanged from the previous year. Natural gas retailers are required to be a) unbundled from distributors, and b) licensed by the Ministry for Economic Development (only if they intend to sell to consumers). At 31 December 2009, there were 410 licensed retailers. However, since some companies awarded licences by the Ministry subsequently remain inactive, licensed retailers actually operating in 2008 numbered just over 300, as evidenced in the Authority's annual survey.

The suppliers of last resort for 2009-10 were selected in accordance with the new provisions of Law 99/2009. The Ministry for Economic Development Decree of 3 September 2010 provided for the implementation of this law and established that, for thermal year 2009-10, the Single Buyer would select each supplier of last resort through competitive bidding procedures. The Decree also envisaged that the Authority should establish the arrangements for these procedures following the same guidelines as adopted for thermal year 2008-09.

With Resolution ARG/gas 119/09 of 4 September 2009, the Authority defined the criteria for the selection of the suppliers of last resort. After publishing the *Regulations for competitive bidding procedures* on its website, the Single Buyer selected the operators and published the notice on the outcome of the selection procedure for thermal year 2009-10. For each macro-area, the ranking was published with the names of the operators selected as suppliers of last resort for natural gas for thermal year 2009-10 (Table6.1).

Table 6.1 Suppliers of last resort: ranking

MACRO-AREA	NUMBER	OPERATORS
AREA 1: North Piedmont (E1), South Piedmont and Liguria (E2)	2	Enel Energia Eni – Divisione Gas & Power
AREA 2: East Lombardy, West Lombardy (D)	3	Gas Plus Enel Energia Eni – Divisione Gas & Power
AREA 3: Friuli-Venezia Giulia (A), Trentino Alto Adige and Veneto (B), Southern Veneto (G)	3	Gas Plus Enel Energia Eni – Divisione Gas & Power
AREA 4: Emilia and Liguria (F), Romagna (I), Tuscany and Lazio (H), Umbria and Marche (L)	3	Gas Plus Enel Energia Eni – Divisione Gas & Power
Area 5: Lazio (N), Marche and Abruzzo (M), Basilicata and Puglia (O), Campania (P), Calabria (Q) and Sicily	2	Enel Energia Eni – Divisione Gas & Power

Supplier obligations, supply conditions and consumer protection

The system of obligations and supply conditions designed to guarantee consumer protection in both the electricity and gas markets has been in force since December 2007 (see *Annual Reports for 2008* and *2009*). The system largely reflects the Authority's jurisdiction over customer protection as envisaged by its instituting law (Law 481/1995), which in many ways goes beyond the requirements of the European Directives of 2003. This system is described in some detail in the *Annual Report 2009* and in previous reports and can be summarised as follows:

- **billing transparency** (contracts and supply, invoicing, consumption, charges, and payments);
- **minimum mandatory contractual terms and conditions of supply** (meter reading, calculation of consumption, billing frequency, terms and method of payment, late payments and defaults, disconnections, payment by instalment, and handling of complaints);
- **Commercial Codes of Conduct** for supply to consumers (specific conduct requirements, starting with information obligations in contacts with prospective customers and in drawing up contracts with these customers). This also envisages the use of a **price comparison table** to make it easier for both domestic and non-domestic consumers to compare the offers presented, the aim being to reduce non-transparent behaviour by suppliers;
- procedures for filing **complaints;**
- **rules** providing protection in the event of **late payments and defaults;**
- compulsory uniform nationwide standards covering **commercial quality of service, security and continuity of supply** for all distributors, with provisions for **automatic refunds** in the event of non-compliance.

Commercial quality levels have seen a gradual improvement since the introduction of regulation by the Authority. Evidence of this lies in the fact that after years of constant increases, the number of automatic indemnities to consumers for failure to comply with commercial standards has fallen drastically in both the electricity and gas sectors. More specifically: from the peak of 79,072 in 2003 to 26,126 in 2009 for electricity, and from the peak of 43,886 in 2007 to 15,783 in 2009 in the natural gas sector.

As regards consumer protection and public service obligations, in the course of 2009 a consultation document was published with a view to adopting an **Integrated Commercial Code of Conduct for the two sectors**. This also envisaged extending comparison instruments to the gas sector and to dual fuel offerings, a form of contract that is becoming increasingly widespread in the free market.

Another measure to harmonise the two sectors was the approval of the directive for the **harmonisation and transparency of billing documents** for the consumption of electricity and gas distributed over urban networks. This followed a regulatory impact analysis (RIA). With the new directive, which enters into force on 1 January 2011, bills have been made more transparent and easier still to understand. The new billing document has been standardised for both electricity and gas, and for duel fuel bills, thus making it easier for consumers to compare electricity and gas bills.

Of considerable importance for both services was the launch of the ***Sportello per il consumatore di energia elettrica e gas*** (Helpdesk for electricity and gas consumers). The task of setting up and operating the Helpdesk, initially entrusted to the *Cassa conguaglio per il settore elettrico* (Electricity Equalisation Fund – CCSE), was subsequently transferred to the Single Buyer in application of Law 99 of 23 July 2009. Art. 27.2 of Law 99/2009 envisages that the Authority should draw on the *Gestore dei servizi elettrici* (GSE) and Single Buyer to provide enhanced customer protection (see *Gestione dei reclami e informazioni ai clienti finali: lo Sportello per il consumatore di energia*).

The Helpdesk began operating on 1 December 2009 on the basis of a project initially covering the period 1 December 2009 to 31 December 2012. It performs its complaint-handling role on the basis of specific *Operational Regulations* adopted by the Authority. The Helpdesk satisfies the need, highlighted by the recent opening of the electricity and gas markets, to provide a timely response to written complaints and notifications sent in by consumers, in a context where their numbers are increasing significantly. With its dedicated call centre, the Helpdesk also aims to give consumers access to any information on the liberalised energy markets that might increase their awareness of their rights and help them make an informed choice of energy supplier. The effectiveness of the energy consumers' Helpdesk is confirmed by:

- the data on the volume of information requests received: from 69,700 calls in April 2008–April 2009 to 417,000 in April 2009–March 2010;
- the distribution of peak information requests, which coincided with the information campaigns for the electricity and gas bonuses;
- the excellent results achieved by the Helpdesk call center in 2009. These included: service accessibility: 99.6%, compared with a required standard of 90%; average waiting time: 128'', compared with a required standard of 240"; service level: 87%, compared with a required standard of 80%; and the results of the customer satisfaction

goals promoted by the Ministry for Public Innovation (good service, 78%; adequate service, 14.4%; unsatisfactory service, 6.7%).

2009 also saw increased user uptake of the information services available on the Authority's website. Most notably, a growing number of visits to ***Trova-offerte*** (Offer Finder), an interactive online service for consumers that has been operating since April 2009. *Trova offerte* allows users to compare the offerings available on the market and grasp any advantages to be gained from changing their supply contract. In its first year of operation, *Trova offerte* had 445,000 hits, averaging more than 1,000 per day.

To provide increasingly complete and transparent levels of information, the Authority has developed other new initiatives for consumers. These include the ***Atlante dei diritti del consumatore di energia elettrica e gas*** (manual for electricity and gas customers). Other dedicated information tools have been developed for domestic electricity customers under the enhanced protection regime. These tools are intended to provide consumers with support during the gradual run-up to the entry into force, from July 2010, of the new economic conditions which will differ at different times of the day and year.

In revising the rules governing defaulting electricity customers, the Authority has adjusted some of the contractual conditions of the enhanced protection regime and up-dated the amount of the compulsory deposit, which was set in 1999 and had not previously been brought into line with the evolution of the market.

Finally, distribution companies have now been given responsibility for collecting metering data and making this information available. As a result, changes were required in the Code of Commercial Conduct for the sale of natural gas. These concerned the contractual clauses governing the conditions for and timing of the use of meter-reading data, irrespective of the data-collection method, for billing purposes.

Treatment of vulnerable consumers

With the interministerial decree of 28 December 2007, published in the Official Journal of the Italian Republic (*Gazzetta Ufficiale*) on 18 February 2008, the Government defined the legislative framework for the introduction of protection mechanisms for economically disadvantaged and vulnerable domestic customers.

These provisions were further supplemented by decree law no. 185 of 29 November 2008, which extended the compensation mechanism to the gas sector and introduced a different access threshold for households with more than three dependent children. Under the current legislative framework, therefore, the special provisions for vulnerable customers now extend to the following categories of domestic customers:

- members of households in general with an Indicator of Equivalent Economic Status (ISEE)[15] no higher than €7,500 ;

[15] The Indicator of Equivalent Economic Status (ISEE) was conceived at central government level as a concise and reliable means of measuring citizens' standard of living. It makes it possible to select the platform of social welfare beneficiaries using uniform criteria and parameters. More precisely, the ISEE is a linear combination of income (including from financial assets) and household assets (of which 20% is considered). It is used as a unit of reference to evaluate the

- members of households with more than 3 dependent children and ISEE no higher than €20,000;
- households that include a seriously ill person who needs to use electrically powered life-saving equipment, without limitations of domicile or contractual demand.

For the electricity sector, starting on 1 January 2009 and back-dated to 1 January 2008, a protection mechanism specifically for economically disadvantage domestic customers or those with serious health conditions has been active. This mechanism was previously included implicitly in the D2 and D3 tariff structure applied on an obligatory basis to all domestic customers. The Authority adjusts the value of the rebate each year, at the same time as the December tariff adjustment.

At 30 March 2010, over 1 million applications for the social bonus had been submitted and, having passed all the checks carried out by municipal authorities and electricity distributors, been judged eligible for the bonus. According to the estimates carried out in the early months of 2010, the rebates approved for 2008 and 2009 amounted to about 160 million euros. The costs of delivering the electricity rebates are included in general system costs.

For the gas sector, and with effect from 1 January 2009, Decree 185/08 extended the right to compensation for their natural gas expenditure to economically disadvantaged households entitled to protected tariffs for their electricity supply. Decree 185/08 also entrusted the Authority with the task of quantifying the rebates and defining the arrangements for applying them. As part of the gas distribution tariff reform for the new regulatory period beginning on 1 January 2009, the Authority had revoked the previous social protection mechanisms (see *Annual Report* 2009). With Resolution ARG/gas 88/09 of 6 July 2009, the Authority defined the arrangements for the rebate mechanism for natural gas customers.

At 30 March 2010, over 200,000 "social bonus" applications had been submitted to the municipal authorities. The first were paid out in May 2010, starting with the back-dated rebates for 2009. The total amount of compensation for 2010 was defined at the time of the December 2009 tariff adjustment.

Disconnection of defaulting customers

The contractual conditions for retail supply defined by the Authority also regulate disconnections following defaults in the payment of bills. Distributors may proceed with disconnections only after sending a written notice to defaulting customers referring to: the final date for payment; the procedure for notifying that the payment has been made; and the date after which disconnection will be made in the absence of payment. Disconnections are not allowed when electricity is required to power medical devices; on Fridays and weekends; or on holidays or the days preceding a holiday.

resources of the household rather than the individual. For this reason, the value of the ISEE is expressed in euro-equivalents: it is divided by a coefficient of equivalence that takes into account the size and composition of the household receiving the social welfare benefit under consideration.

The Authority does not monitor the number of disconnections related to payment defaults, but rather the number of requests for reactivation following such disconnections.

Between 2008 and 2009, in the electricity sector requests for reactivation made by low-voltage customers increased from 1,159,628 to 1,236,841, and in the natural gas sector from 64,681 to 78,343, (low-pressure customers)[16]. The number of reactivation requests following disconnections for payment default in the electricity sector has grown in recent years (from 310,540 in 2004), even following the introduction of smart meters. Using these, as an alternative to outright disconnection suppliers can drastically reduce the power supplied to a "minimum vital level" (around 0.5 kW). This practice, which is recommended by the Authority in the interests of increased consumer protection, minimises the actual damage caused to customers while the default is pending.

Tariff regulation

Tariff regulation is primarily intended for infrastructure activities performed over networks and implemented through a price cap mechanism as set by the Authority's instituting law (Law 481/95). It reflects the regulator's efficiency over a four-year regulatory period.

Table 6.2 Price caps (productivity gain coefficients) for infrastructure tariffs

ELECTRICITY SECTOR		NATURAL GAS SECTOR	
Transmission *(2008-2011)*	2.3%	Transmission (2010-2013)	Coefficient differentiated by company
Distribution *(2008-2011)*	1.9%	Distribution (2009-2012)(A)	4.6% thermal year 2007-08
Metering *(2008-2011)*	5.0%	LNG Regasification(B) *(2008-2011)*	1.5% thermal year 2007-08 0.5% for existing terminals 0% for new terminals
		Storage *(2006-2010)*	1.5% (*capacity*) 2.0% (*commodity*)

(A) The price caps were revised following a ruling by the highest administrative court in Italy, the Consiglio di Stato, in September 2006, and apply only to operating costs and depreciation.

(B) The third regulatory period for LNG started in 2008. Unlike the second regulatory period, for which the price cap was applied to both operating costs and depreciation, in the period 1 October 2008 to 30 September 2012 it will be applied exclusively to operating costs.

In the electricity sector, the Authority set the transmission, distribution and metering tariffs for the third regulatory period (2008-11) in December 2007. For natural gas, the tariff

[16] In the natural gas sector the number of "domestic" customers is about half that of the electricity sector (about 28 million). However, the significant gap in the number of disconnections can be explained primarily by technical and security reasons which lead operators to disconnect supply only in extreme cases.

regulation criteria were defined during 2008 for the third regulatory period for distribution (2009-12) and regasification (2008-11). The criteria for transport were defined in 2009.

For the new regulatory period for transport (2010-13), the price cap has been differentiated by company. More specifically, for companies that were already operating during the second regulatory period, the price cap has been set at a level designed to re-absorb the efficiency gains of that period over an 8-year timespan. For new companies, the price cap is zero.

End-user price regulation

Law no. 125/07 established the "enhanced protection regime" for domestic customers of the electricity and natural gas sectors and for small non-domestic low-voltage customers (with less than 50 employees and a turnover of less than 10 million euros). As in the previous year, in 2009 the Authority introduced rules governing the "enhanced protection regime". It defined standard conditions for the delivery of this service and temporary reference prices for power supplies, based on the actual costs of supply.

These reference prices are updated on a quarterly basis by the Authority and must be offered by suppliers on an obligatory basis in addition to their own offers.

In compliance with the provisions of law no. 125/07, "reference price terms" were also defined for natural gas customers in the domestic sector. These take the form of locally differentiated maximum prices updated on a quarterly basis. Retailers are required to offer these prices, on an obligatory basis, alongside their own commercial proposals so as to provide a greater degree of protection to final consumers. It should be noted that, given the scarce degree of competition in the sale of natural gas in Italy, these terms have been applied since full market opening began, as pointed out in previous Annual Reports.

In 2009, nearly two and a half years on from the full liberalisation of the electricity sector, almost all domestic customers (92% in terms of volumes consumed) continued to be supplied on the basis of the reference prices set by the Authority. In 2008, again in terms of volumes consumed, domestic customers in the protected market accounted for 96% of the total. In contrast, only a small, and falling, minority of non-domestic customers still obtain their supplies on the protected market (19.2% in 2008, compared with 13.2% in 2009).

In the natural gas sector, just over 89% of domestic customers (in terms of volumes consumed) continued to be supplied in the protected market, with prices set by the Authority. The share of protected customers fell slightly with respect to the 91% seen in 2008. By contrast, as in 2008, the non-domestic sector continued to be relatively dynamic, especially in the large industrial segment. The share of large industrial concerns still being supplied from the protected market continued to fall and accounts for a marginal share of the gas volumes consumed (2.8% in 2009, compared with 3.5% in 2008). The protected market did not include any consumption for electricity generation in 2009.

In summary, both markets show signs of dynamism, in some cases significantly so, and there has clearly been no sign of any category of customers switching back from the liberalised to the protected market. This demonstrates that Italy's model of end-user price regulation, introduced with the clear aim of protecting consumers during the transition to the free market, has not produced any distortion of the market.

Table 6.4 Reference prices at 31 December 2009

	ELECTRICITY			GAS			
	Large industrial enterprises	SMEs in the industrial and commercial sectors	Domestic sector	Thermo-electric uses	Industrial enter-prises	Commercial and service enterprises	Domestic Sector
Reference prices regulated by the AEEG under Law 125/07 (Y/N)	N	Y(A)	Y	N	N	N(B)	Y(B)
% of customers with reference-price contracts (by volume)	13.2		92	0.0	2.8	35.1	89.3
Option to revert to the reference price terms defined by the AEEG (Y/N)	N	Y	Y	N	N	N	Y
Number of suppliers with the obligation to offer reference prices	147(C)			410(D)			

(A) Under Law 125/07 the reference prices defined by the Authority apply to low-voltage non-domestic customers with less than 50 employees and a turnover of less than 10 million euros. For the remaining non-domestic customers, who have not changed supplier, the terms defined for the “safeguard” service apply.
(B) Only domestic customers are eligible for the price terms defined by the Authority.
(C) Providers of the “enhanced protection” service as defined in art. 1, paragraph 3, of Law 125/07, AEEG Annual Survey, provisional data, May 2009.
(D) Figure supplied by the Ministry of Economic Development, corresponding to the number of sales licences granted at 31 December 2009. This includes companies which, although authorised, have remained inactive. 311 sales companies responded to the AEEG’s annual Survey conducted in May 2010.

Source: AEEG, from data declared by suppliers.