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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1 FOREWORD

With the present document the Italian Regulatory Authority for Electricity and Gas reports to the Commission on the state of the Italian electricity and gas markets in compliance with the dispositions of which at Articles 3, 4, 23(1) and 23(8) of Directive 2003/54/CE for the electricity sector and Articles 3, 5 and 25(1) of Directive 2003/55/CE.

The report structure follows the guidelines issued by the European Commission Directorate-General Energy and Transport. After a brief description of the institutional role of the Authority and of recent normative developments in the energy market, it analyses the principal elements of structural evolution in the two markets, electricity and gas, relative to regulatory activities and the state of competition. It also provides an update on security of supply and on public service obligations.

2 MAIN DEVELOPMENTS OVER THE LAST YEAR

Regulatory Developments

In the Economic and Financial Planning Document (DPEF) for 2008-2011, approved by the Council of Ministers on the 28th of June 2007, the Government dedicated a specific charter to energy and climate policy. With integrated approach the DPEF envisaged the harmonisation of energy consumption objectives with environment protection targets, assuring at the same time a competitive market and energy available at accessible prices. The document in particular focuses on the need to: increase security of supply through the development of infrastructures in particular in the gas sector; guarantee competition of EU industry providing at the same time advantages to consumers; promote and reinforce investment decisions also through measures of ownership unbundling and development of independent network systems. The DPEF underlines the relevance of developing efficient production systems also reducing energy consumption in production processes by the means of extended fiscal incentives to promote energy efficiency in buildings and energy engines. Finally, in respect to renewable sources and the Kyoto Protocol commitments which require the country a significant increase of the share of energy produced from renewable sources, the DPEF envisages measures aimed to promote the development of available technologies and of new technologies such as: the revision of incentives for renewable energy such as green certificates and the development of the energy account; incentives to "energy account" for the production of photovoltaic and concentrated solar thermal energy; the development of at least 500 MW installed plants of solar energy; incentives for the promotion of solar thermal plants for hot water, heating and cooling; the promotion of solar thermal district heating for large users; the development of a national platform for the production of hydrogen from renewable sources; the development of the heolic and wave and tidal energy. Finally the DPEF favours the sustainable use of biomasses and bio-fuels.

The 2008 Finance Bill (24 December 2007, No. 244), following the indication of the DPEF, introduced important new developments in the energy sector. A substantial reform of the renewable sources incentive scheme introduced two alternative incentive mechanism: a feed in tariff for small plants (<1 MW) and green certificates with coefficients differentiated by energy source. The Bill also introduces provisions aimed at simplifying the authorisation and connection of renewable sources plants to the network and strengthen enforcing and monitoring powers of the Regulator.

In order to reduce the excessive fragmentation of the Italian gas distribution service, the Financial Bill 2008 introduced incentives to promote aggregation among utilities and defining minimum service area for licence tendering.

Finally the Bill established: that the receipts of sanctions imposed by the Regulator are to be invested into projects – proposed by the Regulator and approved by the Ministry – to the benefit of the consumers of electricity and gas; introduced for energy consumers the "class action" which allows also consumer associations, to ask to the Courts (on a individual or collective basis) the compensation for damages and refunding for individual consumer.

One of the main developments in legislation in last year, was the approval of Legislative Decree No. 73 of 18 June 2007 (*Urgent Measures for the Implementation of Community Dispositions in Matters of Liberalisation of Energy Markets*), converted into law 3 August 2007, n. 125, which set measures in view of the full liberalisation of the electricity market on 1 July 2007. The Decree in particular introduced new service regimes for the electricity clients: the "enhanced protection service" for domestic consumers and small industry that do not choose a supplier on the free market and a "safeguard service" for non domestic clients guaranteed by a supplier of the last resource. The same piece of legislation moreover confirmed the role of the Regulator defining "reference prices" for the supply of electricity and gas to domestic clients and small industry, which the energy suppliers offer together with their commercial offers. The Regulator's monitoring and control powers aimed to protect consumers, in particular from unjustified price increases or changes in the conditions of the "enhanced protection service " have been confirmed and reinforced by the provision. The Decree has also attributed the Regulator a role in guaranteeing the availability and accessibility (in respect of national privacy legislation) of the consumption data of final clients to supplies and to develop price confrontation projects to the benefit of consumers.

In order to implement the consumer protection provisions for vulnerable clients of Directive 2003/54/EC and of the Financial Bill 2006[2], in 2007 the inter-ministerial Decree set the criteria for the definition of discounts on electricity bills for vulnerable clients, i.e. in socio economic vulnerable condition or requiring for health reasons the use of life-saving electro-medical appliances was issued. The law converting the decree established that by the 30 June 2008 a similar inter-ministerial decree was to set tariffs for vulnerable clients also for the gas market clients.

Among other relevant pieces of national legislation issued in 2007 are:

- the implementation of Directive 2004/39/EC for financial markets (the so called MIFID) that applies also in some respects to the regulated markets for the exchange of financial instruments of the electricity and gas and to the operators that manage and organise these markets;
- the implementation, of European rules regarding post-metering services, through Law 6th April 2007, n. 46, adopted following infringement procedures opened by the European Union;
- the second decree modifying the Environment Consolidation Act, issuing common procedures for the Environmental Impact Assessment (EEA), the Environmental Strategic Assessment (ESA) and the Environmental Integrated Authorization (EIA).

Developments in the electricity market

In 2007 electricity demand rose by 0.7% against the previous year settling at 340 TWh.

Net national production was substantially stable, while the foreign balance registered a growth of 2,9% against 2006, settling at 46 TWh which represents 13,6% of annual

[2] The Financial Bill 23 December 2005, n. 266 required that an inter-ministerial decree was to set the criteria for the application of electricity tariffs for vulnerable clients.

demand. Import from Switzerland (29 TWh), increased by 21%, while those from Slovenia decreased more than 2 TWh. Export transits increased significantly during the year, in particular towards Greece even if France still remains the first export country (1.2 TWh).

Regarding cross-countries exchanges, the rules established in 2007 allowed the joint allocation of interconnection capacity on the French, Greek and Austrian borders and, from the 1st September 2007, also on the Slovenian border. Interconnection capacity on the Swiss border was instead allocated by each national grid operator for its quota. Annual, monthly and daily explicit auctions were used for capacity allocation on the basis of procedures defined by grid operators.

Congestion rent (i.e. zone price differences for exchanged volumes), is an indicator of the degree of zone congestion at national and trans-national level. In 2007 the congestion rent on the day-ahead market (*Mercato del giorno prima*, MGP) reached its maximum value (375 million euro) increasing by 87% since 2006 and more than quadrupled if compared to 2005. National congestion rents reached instead 121 million euro, increasing by 49% since 2006. Trans-national congestion rents increased even more reaching 254 million euro on annual basis. The increase of trans-national congestion rent, almost only concentrated in the Swiss zone, reflects the increase in its use in import and the frequency of its separation. On the other hand the transit export on the Slovenian border increased, almost never fully used and inhibited in the last quarter due to the definition of the new joint allocation procedures. Export transit flows towards Greece increased also substantially.

In 2007 the demand on the MGP reached 330 TWh, in line with the previous year. The transactions on the Power Exchange reached 221 TWh, increasing by 12,6% since 2006; market liquidity accordingly increased to 67% for 2007. The Average Purchase Price (PUN) on the Italian Power Exchange was 70.99 €/MWh,, decreasing by 0.5% over 2005. As a consequence of the tensions on the Central Europe power exchanges, however, in November 2007 the PUN reached its historical peak of 90,82 €/MWh

HHI zone concentration index, calculated on the effective sale and offers of energy, evidences the presence of structural problems linked to the scarce development of competition on the supply side; these are particularly evident in all the macro-zones with the exception of the North zone. The marginal operator index evidences the presence of a single operator in fixing the Power Exchange price for 80% of exchanged volumes.

The retail market reached in 2007, 301 TWh and over 36 million withdrawal points. As a consequence of the structural changes occurred in 2007 and according to the data collected by the Autorità from suppliers, the consumption of the captive market (i.e. the protection and safeguard services for the second semester of 2007), deceased by 13,7% over 2006 passing from 138,4 TWh to 119,4 TWh while the consumption of the free market increased by 17,4%, reaching 81,7 TWh in 2007.

Within the captive market, i.e. "enhanced protection service", sales to domestic clients amounted to 62 TWh (one fifth of the whole volumes supplied by the retail market) and over 75% of withdrawal points (27 millions). The number of domestic clients that decided to shift, in the second semester 2007, to the free market is negligible (less than 40.000 withdrawal points calculated on a *pro-die* basis).

In the whole retail market (i.e. free market and protected/safeguard services), the companies with in 2007 a share of the market higher than 5% are three: Enel (46%), Edison (7%) and AceaElectrabel (7%).

According to the data collected annually by the Autorità from suppliers, the annual switching rate (calculated on withdrawal points as a proxy of the number of clients) in 2007 was of 1,9%.

Developments in the gas market

2007 was an year of relative stability for the natural gas market : according to the preliminary data of the *Ministry of Economic Development* (MSE), last year gas consumption increased in Italy only by 0,5%. Also due to a mild winter, gas demand grew from 84,5 G(m^3) in 2006 to 84,9 G(m^3) in 2007. National production, following a long term downward trend, decreased just below 10 G(m^3). Thanks to the use of storage, from which 1,3 G(m^3) have been withdrawn, also imports decreased by 4%, reaching 73,9 from 77,4 G(m^3) in 2006.

On the supply side smaller companies produced 0,6 G(m^3) and imported almost 9 G(m^3), even if almost one third of them through Eni's gas releases abroad. Stocks were used mainly by larger companies, specialised in sales to large industrial and thermoelectric consumers, while smaller companies cumulates excess stocks in view of cold winter forecasts.

As for import, the large majority of national supplies derive from the ENI Group, which, by itself, covers 40% of the wholesale market. Part of such purchases derive from gas release measures imposed to ENI following the investigation conducted by the National Competition Authority (*Autorità garante della concorrenza e del mercato*, AGCM) which evidenced the abuse of dominant position of the Group.

In respect to the previous year transactions at the Virtual Trading Point (PVS) more than doubled and reached one fifth of the volume supplied by the operators at national level.

Self-consumption is important for the companies holding also electricity generation activities such as Eni, Edison and other large holdings. Self-consumption results null for Enel Group as the gas used for its generation plants is accounted as a normal internal sale to its generation companies; as a result Enel's sales for thermo-electric generation represent almost 70% of final sales of the group.

The retail gas market, net of self-consumption, is represented by almost 20 million clients, of which almost 19 million are domestic clients, slightly over 1,1 million commerce and service clients, 175.000 industrial clients and over 500 thermo-electric clients. In volumes the domestic market consumes 17 G(m^3), the commercial and service one 5,6, industry 5,6 and electric generation 24,2. In respect to 2007 the free market increased and reached almost one third of the whole market (last year it represented 67% of it). The percentage of clients supplied by the free market increases according to average size: 4,2% from the domestic sector, 33,2% from commerce and services, 47,2% from industry e 92% from thermo-electric.

The smaller companies, with sales lower than 100 M(m^3), concentrate their activity in particular on the protected market to which they provide 60% of their gas. Such companies seam to be specialised in supplying the domestic market: the share of gas for domestic consumption reaches, for this class of operators, 55% of final sales, against shares varying between 8% (Edison) and 44% for companies that that supply up to 1 G(m^3). With

the exception of the Edison Group, the fact that the share of gas for domestic consumption decreased with the size of company's gas supplies, confirms that small operators seam to be unable to compete with larger companies for larger clients. Electric generation is supplied mainly by larger operators.

Organisation and competencies of the regulatory body

The need to respond to the changing conditions of the market, prompted the Autorità to complete in 2007 the process of reorganisation of its' Offices begun in the second half of 2004 and address a progressive regulatory harmonisation of the gas and electricity sectors, more coherent with full liberalisation of the markets, foreseen for 1 July 2007. The organisational design defined in 2006 was therefore consolidated in 2007 in which the coordination and strategic role of the General Secretariat was better defined. In the new organisation the Secretary General, on one hand coordinates internally the Board and the Directions (to this end planning, programming and strategic monitoring and control tools were gradually introduced); on the other oversees institutional relations – both national and international – and external relations, the media and communication.

The Autorità, as usual, up-dated with the first decision of 2007 its three year work plan. The Strategic Plan 2008 – 2011 on one hand provides an internal tool for general management and programming of activities and, on the other, provides all stakeholders with a general overview of future lines of actions of the regulator. The three year Strategic Plan, together with the Annual Report, is yearly subject to general hearings in order to confront its objectives with operators and consumers associations.

There were no major changes in the competences of the Authority in 2007 (with the exception of provisions of law 125/07, see Regulatory Developments). In June 2008, instead legislative decree n. 112/2008, required the Autorità to monitor the respect by the operators prohibition to transfer on energy prices (electricity, gas and oil) the increased taxation introduced with the same law.

Main developments common to both sectors

Among the regulatory activities common to both sectors particular attention was paid in 2007 to those relative to consumer protection. Among them the *Survey the on needs and problems regarding the confrontation of process for retail sales of electricity and gas*, launched in August 2007 which was conducted both through electronic and direct exchanges with the Offices of the main European Regulators, activity of dedicated working groups, workshops and seminars. The *Survey* evidenced that in many countries of the European Union systems of price confrontation, based on calculation engines of the annual expenditure and/or annual saving are available to end user clients. Following the *Survey*, the Autorità obtained free of charge the software of the calculation engine *Tarifkalkulator* (implemented by the Austrian Regulator E-Control) and is currently adapting it to the Italian system.

In the second half of 2007, the Autorità focussed its efforts in providing final consumers with information about the opportunities of full liberalisation. With decision 22 June 2007, n. 140, the Autorità instituted at the Single Buyer (the institution in charge of providing

electricity at competitive prices and with guaranteed continuity, security and efficiency of service conditions to domestic clients and small industries) a *call center* that provides consumers, since the 1° July 2007, information regarding the liberalisation of the electricity market. Given its successful performance, the service was extended to the gas sector since October 2007.

The tree year project started with the *Cassa conguaglio per il settore elettrico* (CSSE) for the management of consumer complaints, is also shared by both sectors. The Autorità started also a project to integrate in a single structure "*The Window of the Consumer*" both the *call centre* of the Single Buyer and the management of consumers complaints of the CCSE in order to optimise resources and increase efficiency.

In the second half of 2007, the Autorità launched a wide ranging monitoring and control on documents provided by suppliers in order to check the implementation of the regulatory decision's issued on bill transparency.

In June 2007 the Autorità established also the rules and timing s for withdrawal from supply contracts for electricity and gas (1, 3 or 6 months according to different clients) with the aim to reinforce consumer protection with the full liberalisation of the electricity market and the introduction of competition in final supply of electricity and gas.

2007 was the third year of full application of the mechanism of energy efficiency promotion based on a system of individual energy saving obligations on operators and on trading system of efficiency certificates (white certificates) launched in 2004. The activity of the Autorità, in the course of the year, was dedicated: to the implementation of the mechanism (i.e. evaluation, verification and certification of projects with the growing support of ENEA[3]); to the monitoring of results and more in general of the functioning of the mechanism (presented and discussed in the *Second Annual Report published in October 2007);* to the recommendations to Government and other institutional bodies regarding the problems emerged; to the review of the implementing regulation in order to face those problems. Also following the issuing of an opinion paper by the Autorità, the competent Ministries issued the Ministerial Decree 21 December 2007 which revises and up-dates the mechanism. Following such revision the Autorità up-dated its implementing regulation.

As evidenced in the *Second Annual Report on the White Certificates Mechanism* the positive evaluation on the functioning of the mechanism is confirmed as the measurable results are encouraging: ability to select cost efficient projects, economic efficiency of investments, diffusion of information to consumers, promotion of the new sector energy services. The efficiency of the system can, however, be enhanced in some respects, some criticalities already evidenced in the first implementation period still persist and new one have emerged. The main feature of the system after the second implementation period is the relative abundance of supply of certificates in respect to demand which entails a reduction of exchange prices in the organised market and of the incentive for the development of new projects for the diffusion of high energy efficient technologies, in particular for electric technologies. The required legislative adjustments, recommended by the Autorità also in a document to the Government, are: the revision of the criteria for the attribution of compulsory targets among operators so to allocate all of the objectives originally defined

[3] ENEA is a public body that promotes and undertakes basic and applied research and technological innovation activities in the energy field.

in July 2004; the definition of targets of energy saving for the years following 2009; the simplification of the sanction mechanism. These and other adjustments were adopted with the Decree 21 December 2007.

The three year experimental phase of Regulatory Impact Analysis (RIA)[4] , started in 2005, was carried on in 2007 with the adoption of four measures subject to RIA: the hourly standard definition of load profiling for clients with withdrawals not measured on an hourly basis; the regulation of the quality of the services of distribution, measure and supply of electricity for the 2008-2011 regulatory period; the regulation of the quality of transmission services for 2008 –2011 and, finally, the tariffs for transmission, distribution and metering of electricity for the 2008 –2011 regulatory period.

In 2008 the experimental period for RIA is going to expire . The Autorità is planning to adopt on a regular basis the RIA methodology. This will imply:

- the revision of the Operative Guide and of the templates which shall not only simplify the work by the Offices but also respond to the problems emerged in the experimental period;
- the definition of the procedures to adopt in order to apply the criteria of inclusion/exclusion, indicated in the Operative Guide, in order to select the relevant measures to be subject to RIA;
- the revision of the procedures and tool for the monitoring and evaluation in order to guarantee a correct and complete application of the methodology.

Main developments in the electricity sector

Law n. 125 of 12th August 2007 implemented some of the provisions of Directive 2003/54/EC, by instituting from the 1st July 2007 a "enhanced protection service" for supplies to domestic and small industrial clients who did not stipulate a contract in the free market and a "safeguard service " for the clients who cannot access to the "enhanced protection service" and are not, even if on a temporary basis, provided with a supply contract in the free market.

The "enhanced protection service" is guaranteed by distributors that, through supply companies, provide a electricity with economic and quality of service conditions established by the Autorità. "Safeguard service " economic conditions are instead defined by operators which, differently from the "enhanced protection service", are identified through a tendering procedure.

In order to adapt the domestic clients tariff structure to liberalisation and in view of a future tariff system which includes also of tariffs for vulnerable clients, the Autorità, defined from the 1st of July, a "transition tariff" for electricity. Such a "transition tariff" represented a first step of a more comprehensive revision process of the whole tariff system which re-defines also the protection regime for vulnerable clients. On this issue the Autorità published in the course of 2007, three consultation documents. At the end of 2006 the Government defined the primary legislative framework for the protection of

[4] Mandatory in Italy for independent administrative authorities as indicated by Article12 of Law No. 22 of 29 July 2003.

vulnerable clients that will enter into force from 2008 with specific measures to be adopted by the Autorità.

In the course of 2007 the Autorità revised the tariff discipline for transmission, distribution and metering in view of the third regulatory period. The criteria for tariff regulation for the new regulatory period defined by the Autorità pursued some general objectives: regulatory stability; convergence between electricity and gas tariff regulation; coherence between tariff and quality of service regulation; simplification of tariff mechanisms also in a pro-competitive vision.

In the first year of the third regulatory period tariffs are defined on the basis of allowed costs (operations, depreciation and a fare remuneration of invested capital remuneration). For the following years and until 2011, the Autorità will up-date tariffs and tariff parameters for transmission, distribution and metering according to a price cap mechanism, applied only to the quota that remunerate operations. The foreseen productivity factor (X-factor) for the period 2008 – 2011 is 2,3% for transmission, 1,9% for distribution and 5% for metering. Such values are coherent with the transfer to consumers of efficiency gains already obtained in the second regulatory period by the operators who were allowed to kept 50% of them through the profit sharing mechanism.

The tariff components that cover allowed revenues for the remuneration of invested capital will be yearly updated through a re-evaluation of invested capital taking into account balance sheet net investments and of their eventual over remuneration. The Autorità overcome the system of undifferentiated incentives for transmission network investments and introduced a system of incentives which allows different and specific extra-remuneration for each different type of investment.

In order to simplify the tariff system and to promote competition in the supply market, the Autorità, with decision n. 348/07, introduced a revision of distribution tariffs which overcame the old one based on "tariff options" and of the connection tariffs. As for transmission, specific tariff provisions for the promotion of differenced distribution network investments (i.e. with higher remuneration of invested capital) were introduced. Having excluded depreciation from the application of the price cap formula, the Autorità foresaw at the same time up-dating procedures similar to those used for invested capital.

Law 125 of the 10th August 2007 imposes from the 1st of July 2007 ownership unbundling for distribution companies that supply more than 100.000 final clients. These companies shall, on the basis of this provision, create, within 180 days of the entry into force of the law, create separate supply companies.

In January 2007, with the issuing of the Consolidation Act (C.A.) on unbundling, the Autorità concluded the reform of the rules of account unbundling for the operators of gas and electricity started in 2005. The C.A. is mainly aimed at guaranteeing the neutral management of essential infrastructures for the development of an energy free market, the absence of cross-subsides between regulated and free activities and the provision of a clear and detailed information flow regarding the financial and economic state of the electricity and gas operators. The rules adopted by the Autorità, are coherent with the dispositions of Directive 2003/54/EC as they introduce account unbundling rules in terms of functional unbundling aiming to impact on the corporate governance of operators. At the same time important simplification of account unbundling rules for the two sectors are introduced. Given the innovative aspects of the new rules and the width of their impact, the Autorità

foresaw almost one year for the complete implementation of functional unbundling rules in particular for those which imply re-organisation of activities by the operators. Finally the Autorità published in June 2008 a consultation document containing the criteria for the implementation programmes of functional unbundling.

The Autorità also worked in order to implement the legislation related to renewable sources and to promote the up-date of the regulatory framework for distributed generation and cogeneration, to promote investments in order to reach the environment reference targets.

Main developments in the gas sector

In the course of 2007 the tariff regulation of the Autorità in the gas sector focussed mainly on integrative modifications to the transport and LNG tariff disciplines and on the preparatory activities for the revision of the distribution tariff in view of the third regulatory period, which shall mark a discontinuity in respect to the first and second one, characterised by a high level of judicial conflict.

Regarding the promotion of competition, the Autorità adopted also in 2007 measures aimed to guarantee security of supply and to prevent gas shortage emergencies such as those of the thermal year 2005 – 2006. In particular these measures, adopted in collaboration with the Ministry of Economic Development, referred to the conferral of un-used capacity, the maximisation of imports and the containment of final consumption.

Further measures regarding supply procedures of the Virtual Exchange Point (PVS) were adopted in order to promote the regulated gas market.

The Autorità also adopted the necessary provisions to complete the tendering procedures for last resource suppliers for final clients, which were successfully concluded with the identification of a last resource supplier for each of the six geographical area into which the country was divided.

The wholesale, storage and transport tariff components of the "economic reference conditions" for clients of the protected market, were reviewed and a fist revision of the tariff component for retail was adopted.

Regarding infrastructure regulation, the third party access exemption granted by the Ministry for Economic Development (according to art. 22 of Directive 2003/55/EC) and the collaboration with the MSE in order to adapt the requirements of the European Commissions is noteworthy .

The routine revision of transport, distribution, storage and LNG Codes underwent as usual during 2007. New dispositions for the better utilisation of storage and the optimisation of storage capacities were also issued. Standard load profiling were introduced in view of the development of a market oriented balancing mechanism.

Finally a working group for the regulation of gas electronic metering was instituted. The launch of preparatory work and the first proposals for the regulation of the quality of gas service in the third regulatory period was developed during the year. Communication standards among operators were moreover defined, while gas quality and gas transport standards were revised together with measures for the after metering security of supply.

3 REGULATION AND PERFORMANCE OF THE ELECTRICITY MARKET

3.1 Regulatory issues

3.1.1 Overview

Since 1 July 2007, with the complete opening of the electricity supplies market, all consumers have the right to choose their suppliers. Until then, the right of access to the free market was restricted only to eligible consumers (i.e. all non-domestic consumers as of 1 July 2004). Non-eligible consumers (domestic and non-domestic who, even if eligible consumers, had decided not to supply themselves on the free market) were supplied by the local distributors based on tariffs set by the Authority.

Italian law no. 125 of 12 August 2007 (conversion law for decree law no. 73 of 18 June 2007), implemented several EU provisions from Directive 2003/54/EC, introduced as of 1 July 2007:

- enhanced protection service for domestic customers and small companies hooked up to the low voltage grid (with less than 50 employees and no more than €10 million in annual sales) that have not signed a contract for purchases on the free market;
- a safeguarde service for all consumers not included in the enhanced protection service and that have no contract for purchases on the free market, even if temporarily.

The enhanced protection service is guaranteed by the distribution companies, also through their special-purpose sales companies, based on the economic conditions and commercial quality standards set by the Authority. Wholesale electricity procurement and related dispatching services for customers served in the enhanced protection regime continue to be supplied by the Single Buyer, whose task is to buy electricity at more favourable conditions on the market and sell it to distributors or retail sales companies which in turn supply electricity to small consumers that do not buy on the free market; the electricity supply to consumers is carried out directly by the above-mentioned companies. In the specific case of owners of low voltage withdrawal points for non-domestic use and for public lighting, the provider of enhanced protection must request a statement attesting to fulfilment of the requirements that qualify the small companies to access to such service. Economic conditions for the safeguarde service are set by the provider which, unlike in the protection service, are determined through tenders for the purpose[5].

In 2007, the retail market reached around 301 TWh[6] in volume, corresponding to more than 36 million total withdrawal points. The free market share reached 60% in volume terms and 4.2% in terms of withdrawal points.

[5] The entities that provide this service from 1 May to 31 December 2008 have been chosen through a competitive procedure on a regional basis after a transitory period in which distribution companies or their affiliated sales companies ensured provisioning continuity. This procedure is based on a regulation issued by the Single Buyer and approved by the Authority.

[6] TERNA's final total consumption figure for 2007, excluding self-consumption, was 298.3 TWh; based on data that operators reported to the Authority, overall consumption amounted to 301.2 TWh.

Table 3.1 Retail market structure in 2007 (net of self-consumption)

MARKET TYPE[A]	REFERENCE PERIOD	VOLUME GWh	NUMBER OF WITHDRAWAL POINTS[B]
Captive market	Year 2007	119,388	34,734,627
Of which: Captive market	*First half 2007*	*60,782*	*17,754,718*
Of which: Enhanced protection market	*Second half 2007*	*49,243*	*16,837,635*
Of which: Safeguarde market	*Second half 2007*	*9,497*	*142,274*
Free market	Year 2007	181,678	1,505,791
Total market	**Year 2007**	**301,200**	**36,240,417**

(A) The market segmentation among captive, enhanced protection and safeguarde must be considered as an approximation given the limited comparability of the semi-annual data. According to data published by TERNA, the captive market in the wide sense (including enhanced protection and safeguarde services) was 121.1 TWh in 2007, while free market consumption reached 177.2 TWh.
(B) With reference to the semi-annual data, the number of withdrawal points is calculated using the *pro die* method.

Source: AEEG calculation on data provided by the operators.

In 2007, as a result of regulation providing service continuity incentives for distribution companies introduced in the 2000-2003 and 2004-2007 regulatory periods, the duration of interruptions without notice per low voltage customer was further reduced. In detail, total interruption duration per customer was reduced from 61 minutes in 2006 to 58 minutes in 2007, taking into account interruptions on both the transmission and distribution networks. In addition, the improvements made on the distribution networks led to a decrease in minutes lost per customer, from 50 minutes in 2006 to 48 minutes in 2007.

Greater details on the quality of electricity service are provided in paragraph 3.1.3 in the section on the continuity of electricity service and commercial quality.

3.1.2 Allocation of interconnection capacity and congestion management mechanisms

Interconnection capacity allocation procedures for 2007 were described in detail in last year's Annual Report to the European Commission. Regulations for the management of cross-border exchange, set by Resolution no. 288/06, prescribe the joint allocation of interconnection capacity on the French, Greek and Austrian borders, and, since 1 September 2007, the Slovenian border. On the contrary, interconnection capacity on the Swiss border was allocated by the respective national grid operators, each for its own share.

For the allocation of available capacity, operators used explicit auctions, held annually, monthly and daily, procedures for which were determined by the grid operators. The auctions allocated Rights of use of transmission capacity (DCTs) to market operators, allowing them to import or export energy in a quantity equal to the amount of DCTs purchased.

Authority Resolution no. 288/06 recognised reserves for the import, transit, and re-entry of electricity on the Swiss border. In detail, it allocated a 600 MW reserve for the execution of multi-year import contracts belonging to ENEL S.p.A. for the coverage of captive market needs.

Table 3.2 summarizes the results of the annual allocations of interconnection capacity for imports into Italy by each of its borders in 2007.

Table 3.2 Allocation of import capacity in 2007

Border	Product	Available capacity	Allocated capacity	Price
		MW	MW	€/MWh
France-Italy	Baseload	1,000	1,000	15.12
	Winter baseload	-	-	-
	Baseload excluding August	600	600	16.16
Switzerland-Italy	Baseload	365	365	11.00
	Winter baseload	305	305	6.25
	Baseload excluding August	520	520	10.58
Austria-Italy	Baseload	182	182	15.21
	Winter baseload	-	-	-
	Baseload excluding August	-	-	-
Slovenia-Italy	Baseload	50	50	7.87
	Winter baseload	-	-	-
	Baseload excluding August	100	100	8.02
	Baseload 1/09/2007 - 31/12/2007	100	100	1.12

Source: TERNA.

As for 2008, with Resolution no. 329/07, the Authority set the rules for the import and export of electricity in compliance with the criteria provided for by the Decree of the Ministry of Economic Development of 18 December 2007. The rules for managing cross-border exchanges allows the joint allocation of interconnection capacity on the French, Greek, Austrian, Slovenian, and Swiss borders.

As in 2007, explicit auctions were held annually, monthly, and daily for the allocation of available capacity. The *Access rules to France-Italy, Switzerland-Italy, Austria-Italy, Slovenia-Italy, Greece-Italy interconnections* were worked out by TERNA jointly with other grid operators, and approved by the Authority.

The share of revenues coming from the allocation of rights of use of transmission capacity attributable to the Italian grid operator is divided among the dispatching withdrawal users, the same as occurred in previous years. Resolution no. 329/07 sets a percentage of revenues to be allocated to Acquirente Unico S.p.A. (the Single Buyer), while the remaining share is divided among the free market customers in proportion to the average power used by each user. The share allocated to the Single Buyer is set starting at 20%, applying an adjustment factor that dynamically takes into account the average consumption power of the customers allowed into the protection service compared to that of the other customers.

Finally, the Resolution regulated import reserves, allocating freely annual transmission capacity shares for electricity imports on the Italian-Swiss border:

- to ENEL S.p.A., for the execution of multi-year import contracts that it owns and allocated to covering the requirements of the Single Buyer;
- to the Swiss company Raetia Energie, for a quantity not exceeding 150 MW;
- to the Republic of San Marino and to the Vatican City State;
- for the purposes of electricity imports by the company Edison S.p.A., for the re-entry into Italy of part of the electricity generated in the hydroelectric reservoir at Innerferrera, Switzerland, for a quantity not exceeding 60 MW.

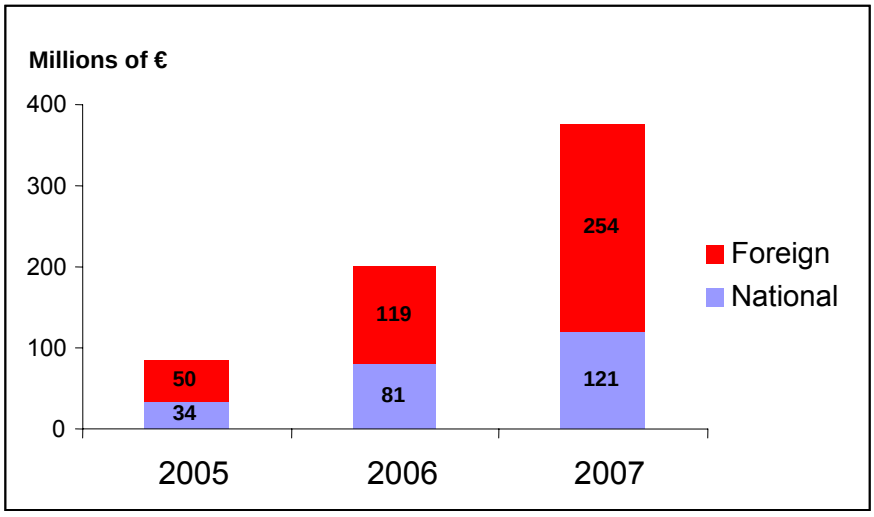
To allow for the management of congestions with abroad, the Italian Power Exchange mapped out virtual foreign zones that represent the cross-border interconnections with neighbouring countries. The current zones, first mapped out in years when the disjoint allocation mechanism prevailed for each border among neighbouring grid operators, calls for zones representative of import capacity allocated by TERNA (France, Switzerland, Austria, Slovenia, Greece) and zones representative of the capacity allocated by the TSOs of the neighbouring countries. Until 2006, in the former zones TERNA allocated capacity through implicit auctions, i.e. daily through the acceptance of offers submitted on the Day-Ahead Market (MGP), resulting in frequent and significant price differences in such zones compared to neighbouring geographical zones, representative of transit capacity access cost. This system continued to be used in 2007 only for Slovenia and Switzerland, respectively until the end of August and the end of December, confirming high separation frequencies (38.5% and 59.2% respectively) and noticeable average price differences (respectively 27.4 €/MWh and 18.0 €/MWh). In the other zones, i.e. capacity allocated by neighbouring grid operators, the prevailing system was allocation through explicit auction, i.e. through the sale of transit capacity separate from energy in annual, monthly and daily auctions, and setting every hour a maximum capacity available just above the capacity allocated to avoid the emergence of a wider price difference than the capacity price already paid at auction. In 2007 this system prevailed on all borders, except the Swiss border, following the adoption of the congestion management method mentioned above based on joint explicit auctions among neighbouring TSOs.

An indicator of the degree of zonal congestion at the national and cross-border level is the amount of congestion rents, equal to the difference between prices among zones multiplied by the volume traded.

In 2007, the Day-Ahead Market revenue reached its maximum amount, both at the aggregate level and in its individual components, national and foreign. In detail, total revenue reached €375 million, up 87% on 2006 and more than four times compared to 2005.

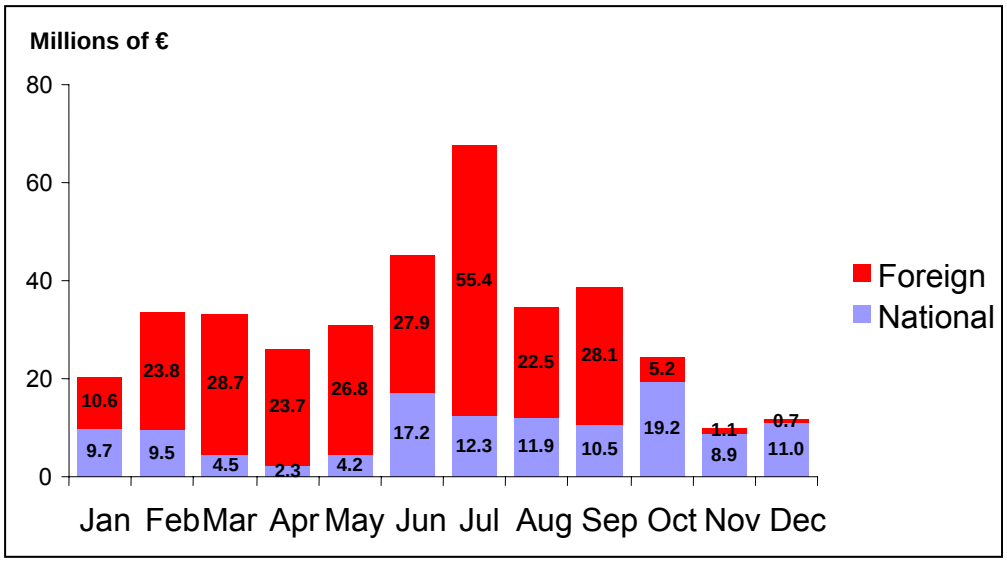
National rents reached €121 million, increasing by 49% over 2006, with particularly high peaks in June and October. Foreign rents increased at even a sharper pace, up 113%, reaching €254 million for the year, with monthly levels regularly exceeding €22 million, except for January and the fourth quarter when export flows are high (figure 3.2).

Figure 3.1 Return on congestion in 2005-2007



Source: GME.

Figure 3.2 Return on congestion by month in 2007



Source: GME.

The increase in foreign revenue, almost exclusively concentrated in the Swiss zone, reflects the increase in its use for imports (98%, up 13% on 2006), and the separation frequency (59%, up 18%), due to the closeness of prices in the Swiss zone to prices in the neighbouring EEX-CH exchange. In contrast, the use for transit for exports with Slovenia increased by 11% to 14%, almost never saturated or inhibited in the last four months as a result of the switch to the new joint trading capacity allocation procedure. Also rising sharply was the use for transit for exports to Greece, up 20% to 47%.

Table 3.3 Cross-border transit operations in 2007

Transit		Average limit		Used		Saturated		Inhibited	
From	To	2007	2006	2007	2006	2007	2006	2007	2006
Switzerland	Italy	1,622	1,132	97.6%	84.9%	58.7%	41.2%	-	-
Italy	Switzerland	692	∞	2.4%	15.1%	0.6%	-	-	-
Slovenia	Italy	182	184	52.9%	96.9%	3.6%	3.8%	33.4%	-
Italy	Slovenia	75	∞	13.6%	3.1%	3.2%	-	33.4%	-
Greece	Italy	500	434	18.6%	51.1%	-	-	12.9%	8.7%
Italy	Greece	500	500	46.5%	26.3%	5.0%	-	12.9%	4.7%

Source: GME.

3.1.3 Regulation of transmission and distribution companies

In November 2005, with the transformation of the company TERNA, the reunification of ownership and management of the national transmission grid became effective.

TERNA is a public company listed on the stock exchange. Currently the major shareholder is Cassa Depositi e Prestiti, which owns 29.99% of the share capital.

The company owns (partially through its wholly-owned subsidiary Rete Trasmissione Locale R.T.L. SpA) more than 97% of the national transmission grid, with around 44,500 km of lines, 366 transformation and switching stations, and 3 remote stations. The remaining 3% of the national electricity transmission grid (transmission lines) is owned by 5 other companies (Enipower Trasmissione, S.E.L.F. Rete Ferroviaria Italiana - Rome, AGSM Trasmissione - Verona, Retrasm ASM - Brescia, and AE-BZ), while 4 companies (Seledison, Arvedi Trasmissione, Brulli Energia – Reggio Emilia, and Seasm - Brescia) own only a few transformation stations.

TERNA significantly increased its share of infrastructures in 2006 with the acquisition (through RTL) of the entire share capital of Edison Rete SpA and 99.99% of the share capital of AEM Trasmissione SpA. Also in 2007, it acquired the entire share capital of AEM Trasporto Energia S.r.l. - Turin.

In January 2007, TERNA released its 2007-2016 Development plan for the domestic electricity transmission grid, subject to the approval of the Ministry of Economic Development. The plan's objective is to increase interconnection with abroad and reduce grid congestion.

For 2008, the Development plan calls for an analysis of current and future critical problems on the grid and identifying the main development actions. These actions have been classified according to the main benefits associated with them: the system's adequacy for satisfying demand, grid operational security, the reduction of congestion, and improvement in the quality of service.

Legislative decree no. 79/99, calling for the release of only one distribution concession for each municipality and giving the investee companies of the local authorities the option of asking the former monopoly holder ENEL for the transfer of its branches carrying out

distribution activities in the territory of the municipality, implemented a gradual rationalisation process of the activity, by now close to completion.

Table 3.4 presents the geographic distribution of the operators and the distribution networks by network type, as emerging from the data the Authority collected from the distributors. There are 138 distribution companies in all and they manage more than 1,200,000 kilometres of grid, of which two-thirds low voltage and a little less than one-third medium voltage.

Table 3.4 Length of the distribution grids at 31 December 2007

REGION	HIGH AND VERY HIGH VOLTAGE (km)	MEDIUM VOLTAGE (km)	LOW VOLTAGE (km)	NUMBER OF DISTRIBUTORS (A)
Val d'Aosta	56	1,483	2,547	3
Piedmont	1,497	28,061	63,263	6
Liguria	832	6,981	21,080	2
Lombardy	3,524	40,700	81,292	14
Trenton Alto Adige	497	7,904	14,744	70
Veneto	2,200	26,051	60,888	3
Friuli Venetia Giulia	539	7,976	14,517	5
Emilia Romagna	1,923	31,287	66,257	3
Tuscany	1,154	26,200	57,299	2
Lazio	1,776	27,964	64,160	5
Marche	565	11,487	29,490	6
Umbria	57	8,512	20,084	2
Abruzzi	531	9,719	24,847	4
Molise	45	3,602	7,696	1
Campania	1,215	23,984	58,155	3
Apulia	1,719	28,396	59,514	3
Basilicata	629	9,755	14,659	1
Calabria	489	17,579	40,592	1
Sicily	1,161	35,755	74,156	10
Sardinia	498	17,687	32,931	5
TOTAL	**20,907**	**371,083**	**808,171**	**149**

(A) Each distributor is counted for each presence in the regions where it operates.

Source: AEEG calculations on data provided by the distributors.

Table 3.5 shows the percentage of shares of the major electricity distribution companies in 2007.

ENEL was the largest with around 86% of the volume distributed, followed by other operators that, except for the two major city-owned utilities operating in Rome and Milan, have very small shares.

Table 3.5 Electricity distribution by company in 2007

Volumes distributed

COMPANY	GWh	% share of the total
ENEL	254,671	86.4
AceaElectrabel	10,616	3.6
AEM Milano	7,526	2.6
ASM Brescia	4,506	1.5
Iride	3,412	1.2
Trentino Servizi	2,263	0.8
Hera	2,237	0.8
AGSM Verona	1,928	0.7
Other operators	7,764	2.4
Total	**294,923**	**100.0**

Source: AEEG calculations on data provided by the operators.

Table 3.6 shows distributors' activities broken down by the number of withdrawal points and the corresponding volumes distributed, withdrawal points, and average amounts.

The operators with more than 500,000 customers are ENEL, AceaElectrabel, AEM Milano, and Iride, while as many as 52 have less than 1,000 customers. 10 of these 52 operators have fewer than 100 withdrawal points.

Table 3.6 Distributors' activities

Year 2007

Number of withdrawal points	Number of operators	Volume distributed (GWh)	Number of withdrawal points	Average volume by operators (GWh)	Average number of withdrawal points per operator
> 500,000	4	276,225	33,482,844	69,056	8,370,711
100,000 - 500,000	7	13,239	1,272,778	1,891	181,825
50,000 - 100,000	2	1,481	131,797	740	65,899
20,000 - 50,000	10	2,070	307,288	207	30,729
5,000 - 20,000	21	1,265	213,675	60	10,175
1,000 - 5,000	42	567	97,500	14	2,321
< 1,000	52	75	20,323	1	391
Total	**138**	**294,922**	**35,526,205**	**2,137**	**257,436**

Source: AEEG calculations on data provided by the operators.

As for the distribution companies' ownership structure, the public bodies (mainly municipalities) own half the capital in them (table 3.7).

Table 3.7 Legal form of shareholders in the distribution companies

Year 2007

Shareholder type	% of capital
Public bodies	54.4
Local energy companies	3.2
National energy companies	4.0
Foreign financial institutions	0.1
National financial institutions	0.8
Individuals	14.9
Floating capital	0.4
Other companies	22.2
Total	**100.0**

Note: 19 companies did not provide data on their ownership structure.

Source: AEEG calculations on data provided by the operators.

Transmission and distribution tariffs

In 2007, in view of the start of the third regulatory period from 2008 to 2011, the Authority revised tariffs for electricity transmission, distribution, and metering services.

In establishing its tariff-setting criteria for the new regulatory period, the Authority pursued several general objectives, including: regulatory stability, convergence of tariff-setting criteria between the electricity sector and the gas sector, consistency between tariff-setting regulations and the regulations regarding the quality of service, and the simplification of the tariff mechanism also with a view to stimulating competition.

Since the Authority began its operations, the Italian tariff system has been conceived according to the price cap incentive model, expressly provided for by the law setting up the Italian Regulatory Authority (law no. 481/95). The regulatory period lasts four years. At the start of the third regulatory period (2008-2011), initial tariffs for transmission, distribution and metering services were set on the basis of allowed costs (operating costs, mainly external resource costs, among which personnel and materials purchasing costs, the depreciation & amortization of fixed assets, calculated according to economic and technical criteria, and an adequate return on invested capital).

For the purposes of allowing operating costs, the Authority referred to costs incurred by the suppliers, as reported for the year 2006 and re-proportioned to the scale variables[7] for 2007 (budgeted amounts), and efficiency gains attributable to the operators, calculated as the difference between allowed cost for the year 2006 and the effective cost reported for the same year. The costs were then brought forward to 2008, taking into account inflation and the required efficiency gains. In determining allowed operating costs, the Authority basically followed the criteria provided for by the provisions of law no. 290/03 for the

[7] Scale variables refer to withdrawal points, energy, and power.

2004-2007 period, calling for a "*… symmetric sharing between users and companies of the efficiency gains realized over the targets set with the price-cap mechanism*".

Depreciation and amortization have been recognised at the 2008 base year tariff through an adjustment of the price-cap amount (taking into account gross fixed assets included in the reference base for the previous 2004-2007 period and that at 31 December 2006 were completely depreciated/amortised or sold) and adding the amount of new investment made in the 2004-2006 period, appropriately re-valued. The measures of standard useful life ? used in the second regulatory period will be used again in the third, with the sole exception of low voltage electronic meters for which a useful life of 15 years has been set, shorter than the 20 years recognised for other meters.

The rate of return on invested capital allowed for regulatory purposes for the 2008-2011 period has been set to guarantee capital investors (equity and debt) a return that is consistent with what they could have obtained on the market investing in assets with a similar risk profile. As for the rate of return on equity, the Authority used the Capital Asset Pricing Model (CAPM), commonly used in the financial markets to determine the return demanded by investors for assets with a certain level of risk. As for the risk-free rate, once again the Authority used the 12-month average (1 December 2006 – 30 November 2007) for the benchmark 10-year BTP gross yields reported by the Bank of Italy. The Authority set the β level parameters, which measure the degree of an asset's systemic risk, and hence non-diversifiable, taking into account the levels recognised in European best regulatory practices and the features of the Italian electricity market.

Table 3.8 Parameters for setting the rate of return on invested capital recognised in the third regulatory period (2008-2011)

Parameter	Description	Transmission	Distribution	Measurement
r_f	Nominal rate on risk-free assets (%)	4.45%	4.45%	4.45%
B levered	Asset's systemic risk	0.575	0.600	0.670
Pr	Market premium (%)	4%	4%	4%
Kd (nominal)	Return on debt (%)	4.9%	4.9%	4.9%
T	Tax rate (%)	40%	40%	40%
Tc	Tax shield (%)	33%	33%	33%
Rpi	Average trend inflation (%)	1.7%	1.7%	1.7%
WACC	**Weighted average cost of capital (%)**	**6.9%**	**7.0%**	**7.2%**

Source: AEEG.

For the years 2009-2011, the Authority will annually update the tariffs and the tariff parameters for transmission, distribution, and metering services according to the price cap mechanism, applied exclusively to the portion of the tariff parameters that compensate operating costs. In contrast, in the second regulatory period (2004-2007), in accordance with the mentioned law no. 290/03, the price-cap mechanism was applied to both operating costs and depreciation & amortization, while in the first regulatory period (2000-2003) it was also applied to return on capital. The planned productivity gains level (X-factor) for the 2008-2011 period has been set at 2.3% for transmission, 1.9% for distribution, and 5% for measurement.

These levels are consistent with the objective of completing the process of transferring to consumers the efficiency gains already achieved by companies in the second regulatory period (exceeding the target set by the Authority and the 50% left to them through the profit sharing mechanism), in a pre-set number of years, set at 8 for transmission and distribution, and 6 for measurement.

Table 3.9 Planned productivity gains (X-factor) for the annual updating of operating costs

Activity / Regulatory period	Transmission	Distribution	Measurement
2000-2003	4.0%	4.0%	4.0%
2004-2007	2.5%	3.5%	3.5%
2008-2011	2.3%	1.9%	5.0%

Source: AEEG.

The tariff components covering costs for return on invested capital will be updated annually through a review of capital itself based on the average annual change in the gross fixed investment deflator reported by the Central Statistics Office, and taking into account net investment allowed for in the balance sheet for year *n* starting from year *n*+2 and any additional return associated with such investment[8].

With the aim of promoting the development of infrastructures consistent with the industry's needs and in compliance with efficiency and effectiveness criteria, the Authority has superseded the incentive system that did not differentiate for investment in transmission grid infrastructures and adopted, starting from the first year of the third regulatory period, an incentives system that differentiates by type of investment, allowing for the association of each type of investment identified with a specific level of extra return. In detail, investment for the development of transmission capacity, aimed at reducing congestion between market zones and intrazones, and investment in Net Transfer Capacity (NTC) on electricity borders is allowed 3% additional return on invested capital for 12 years over the 6.9% base rate of return.

The Authority also initiated a procedure to define investment efficiency indicators aimed at measuring the benefit that each investment is capable of contributing to the system, so as to identify objective criteria for both the setting of an order of priority for investment in grid infrastructures and to objectively graduate the level of extra return for new investment in development. These indicators will be introduced on an experimental basis starting from 2011.

Also for the regulation of distribution services, the Authority has introduced tariff mechanisms that provide incentives for certain types of investment crucial for the development and the efficiency of distribution grid infrastructures (such as the construction of new HV/MV transformation stations, the replacement of existing transformers in MV/LV transformation stations with new low-leakage transformers, and MV active grid automation, protection, and control systems), recognising a 2% additional

[8] In other words, by 31 July of each year of the third regulatory period (*n*), grid companies must report to the Authority investment made in year *n*-1 which will be allowed in tariffs for the year *n*+1.

rate of return on invested capital for a period of 8 or 12 years over the 7% base return, in addition to the incentives provided by quality of service regulation. The Authority also introduced a provision that such investment should be based on appropriate efficiency indicators capable of measuring the benefit for the electricity system, similar to the criteria described above for the transmission service. Having excluded depreciation and amortization for price cap purposes, the Authority has at the same time introduced adjustment mechanisms similar to those prescribed for allowed invested capital.

The Authority has also initiated a procedure to monitor the level of debt carried by electricity transmission, distribution and metering operators with a view to promote the industry's economic and financial stability in the medium term, protecting both shareholders and consumers, reserve the right to intervene if an operator's financial standing is in critical condition.

With a view to simplifying tariff mechanisms and to promote the development of competition in the electricity supply segment, featuring the recent full opening of the market to competition, with Resolution no. 348/07 the Authority has introduced a review of the distribution service tariff system aimed at ensuring the superseding of the system based on tariff options, as well as an adjustment of the hook-ups and fixed rights tariff system. As for the distribution service tariff system, the Authority has introduced a set tariff obligatorily applied to all distribution companies. As for hook-up and fixed right tariffs the Authority has amended existing rules and regulations on electricity grid hook-up tariffs, with some limited but innovative changes in expectation of a more comprehensive review.

Table 3.10 Percentage of each tariff component covering different types of cost, regulatory period 2008-2011

Activity Type of cost	Transmission	Distribution	Measurement
Operating costs	32.3%	37.3%	32.2%
Depreciation & amortization	24.5%	25.2%	39.5%
Return on invested capital	43.2%(A)	37.5%	28.3%
Total cost	**100.0%**	**100.0%**	**100.0%**

(A) Includes the part covering the costs pertaining to the Defence Plan based on law no. 290/03.

Source: AEEG.

As for the transmission service, taking into account the introduction of new hourly bands[9] as of 1 January 2007, the Authority ruled that the tariffs as of the same date would be applied in all three time bands. As a result, the transmission tariff for 2007 is differentiated among user types solely in terms of the different level of leakage expected for low, medium, high, and very high voltage users. As for the distribution service, the changes in tariffs from 2006 to 2007 were to a great extent attributable to the adjustment in the component covering distribution companies' allowed costs to increase quality of service.

[9] In the current regulatory framework, the time bands have a significant impact on procurement in the enhanced protection market. In 2007, they had an impact on both sales to customers of the captive market and on the distribution service.

Table 3.11 Regulation of grid operators

	Number of regulated companies	Estimate of the transmission tariff (€/MWh) – 2007		
		Ig	Ib	Dc
Transmission	11[A]	3.40	3.40	75.73[B]
Distribution	138	6.08	42.51	

(A) There are 11 companies that own portions of the national transmission grid and/or transformation and switching stations; one of these, RTL, is a wholly-owned subsidiary of TERNA, while 4 own stations only and not transmission lines.
(B) The figure also includes coverage of marketing costs.

Source: AEEG and TERNA.

Electricity continuity of service and Commercial quality

Following a trend of constant improvement since 2000 when regulations providing service continuity incentives for distribution companies were first introduced, in 2007 both the number and the duration of interruptions without notice were reduced net of significant incidents that caused service inefficiencies on the transmission grid.

Focusing on distribution and transmission network interruptions (excluding "significant incidents" and defensive system actions that act automatically or manually in case generation is inadequate), in 2007 the *total duration* of interruptions per customer decreased to 58 minutes, a 70% reduction from the national average in 1999 (the last year before the Authority introduced regulations with incentives for quality improvements).

In 2007, as in the previous years, the improvements made on the distribution networks led to a decrease in minutes lost per customer, from 50 minutes in 2006 to 48 minutes in 2007, a 4% decrease. The number of long interruptions (more than 3 minutes) per customer was 2.16 (taking into account all interruptions). The overall improvement in the average number of long interruptions is 43% since 1999. Even the number of short interruptions per customer (less than 3 minutes but more than 1 second) decreased at the national level, from 4.77 per customer in 2006 to 4.73 in 2007. The improvement since 2002, the first year for which short interruption data is available, is around 30%. Those improvements are the result of the reward and penalty plan that the Authority applied to electricity distributors in the first two regulatory periods (2000-2003 and 2004-2007) which allowed for a significant reduction in the gap of continuity of service performance in electricity between the Northern and Southern Italy, to the benefit of domestic and industria clients..

For the 2008-2011 period, the Authority has strengthened the reward and penalty plan with Resolution no. 333 of 19 December 2007. As of 2008, Italian distribution companies are subject to incentives and penalties based not only on the duration of interruptions (as in previous years), but also, for the first time in Europe, any decrease in long or brief interruptions, i.e. all interruptions lasting more than 1 second.

If we also consider the effects on continuity of service due to "defence system" action, the improvement in eight years is reduced to 64%, in turn due to "significant incidents" occurring in 2007 on the national transmission grid.

Table 3.12 Electricity continuity of service indicators (excluding significant incidents and defence system actions)

Indicators	2000	2001	2002	2003(A)	2004	2005	2006	2007
Duration of interruptions per low voltage customer (minutes lost per customer)	187	149	115	105	91	80	61	58
Number of long interruptions throughout the year per low voltage customer	3,6	3,1	2,8	2,8	2,5	2,4	2,3	2,2

(A) Excluding scheduled outages and black-outs

Source: AEEG.

As for the quality of the transmission service, in 2006 the Authority implemented regulations introduced in 2004, defining both the obligation to register supply failures regarding users of the national transmission grid and transparency on several quality of transmission service issues, including the publication of an Annual report on the quality of service. TERNA published this Annual report for the first time in 2007, providing information on the quality of the transmission service in 2006 in comparison to the "expected levels of quality" for the transmission service set by TERNA itself and approved by the Authority for the year 2006 with Resolution no. 6 of 17 January 2006. With Resolution no. 37 of 23 February 2007, the Authority updated the expected levels of quality of the transmission service for the year 2007, regarding supply failures to customers and distribution companies (directly hooked up to the national transmission grid) for which the transmission grid operator is responsible, net of "significant incidents" (supply failures with power not supplied exceeding 150 MWh/event) and causes due to force majeure.

Examining the data on the quality of the transmission service net of significant incidents, out of an overall average interruption duration per customer of around 1 hour per year, less than 1 minute was attributable to transmission, net of significant incidents on the National Transmission Grid (RTN).

With Resolution no. 341 of 27 December 2007, the Authority amended the regulations on the quality of transmission service, introducing a reward and penalty plan for power not served and for the number of supply failures into the RTN. This incentives-based regulatory scheme requires the gathering of historical continuity data for the transmission service in accordance with the rules that will be applied in the 2008-2011 period.

The regulation of commercial quality of service has been in effect since 1 July 2000, with the setting of national standards for commercial quality, including the maximum time to execute services requested by customers (hook-ups, activations, estimates, technical checks, responses to complaints, etc.), which constitute the minimum that each company is required to provide to its customers. The purpose of regulation of commercial quality standards is to protect consumers through action that guarantees and promotes the quality of service so that liberalisation does not lead to a weakening of protection, especially for customers with less bargaining power in terms of the right of choice in a competitive system.

A customer that requests a service subject to a specific standard is informed by the company providing it of the maximum time and the automatic compensation provided for if the standard is not met. At least once a year, all customers of the enhanced protection

service must receive from the company, through energy invoices, information on guaranteed standards of quality and on the results effectively achieved during the year. Annually, as part of its survey on the quality of service, the Authority publishes the average time for carrying out services stated by the providing company and the related standard control parameters (percentage of cases not complying with the standard, due to reasons attributable to the providing company itself, net of causes due to force majeure or third-party responsibility).

The introduction of automatic compensation provided to customers in the event of failure with specific quality standards, due to the providing company and not due to *force majeure* or third parties or the customer itself, has resulted in an increase over time in the compensations paid to customers in comparison to the old system in place before the current regulation. The amount of compensation, set by the Authority, is greater for customers that have higher energy use and grid costs. Customers are paid automatic reimbursements through a deduction in the amount debited in the first invoice after the event and in any case within 90 calendar days of the expiration of the maximum time for the execution of the service requested by the customer. The operator that does not meet this deadline must pay compensation that is double or quintuple, depending on how late the payment is.

To take into account the extension of the liberalisation to all low voltage customers as of 1 July 2007 and as a result of legislative changes, regulations on commercial quality have been updated with a view to:

- adapting provisions to the new legal and functional unbundling rules set by law;
- reviewing commercial quality standards based on the quality levels recorded in the second regulatory period and on the impact of smart metering;
- gradually extending regulations on commercial quality to all electricity industry companies, including smaller ones;
- achieving consistency between the regulation of commercial quality in the electricity industry and corresponding regulation in the gas services industry, including the adoption of monitoring for implementing commercial quality data checks.

Starting in 2009, new regulations on compensation will come into effect, according to which compensation will be linked to actual time for carrying out the service, introducing in particular a doubling of compensation for time that is more than double the standard and triple compensation for time that is three times more than the standard. Moreover, compensation will again be tripled if, when due, it is not paid within 6 months with the strict obligation of paying within 7 months, otherwise subject to a penalty.

Also starting in 2009, all appointments will be subject to automatic compensation if the punctuality ranges are not met, and compensation for failure to be punctual may be added to compensation for failure to meet timeliness standards (in terms of days) if the service is carried out late.

With Resolution no. 139 of 19 June 2007, the Authority set mandatory quality standards on commercial telephone services provided by electricity and gas suppliers to ensure an adequate level of service in protection of consumers. It also introduced a quality ranking for call centres based on a scoring system for companies that provide their customers with better assistance than the minimum requirements.

The Resolution on the quality of telephone services was adopted following a consultation process that involved operators in a working group and the release of two consultation documents. A customer satisfaction survey was also carried out on commercial call centres, identifying among the major problems how the automated response system is organized, often too complex, and wait times which are too long.

Quality standards for supplier call centres are one of the initiatives adopted by the Authority to facilitate the transition toward full liberalisation also for the domestic market. The objective is to promote constant improvements in the quality of service provided by call centres, while at the same time ensuring the supplier an adequate level of flexibility in offering the service, an essential factor for the effectiveness of the market opening.

The minimum service requirements set by the Authority regard: the simplicity of the automated response, which must be such as to allow the customer to speak to an operator after no more than two choices (three if several services are available); business hours, at least 35 hours per week for operator services, increased to 50 for companies that have not enough branches in the area served; toll-free calling for customers, at least from a landline; customer information, including the call centre telephone number, hours and type of calls accepted, provided on the internet site and on invoices. The Authority has also set standard average waiting times by level of service (percentage of successful calls) and accessibility to the service, with a view to limiting excessively long wait times and reducing the number of busy calls.

Table 3.13 General quality standards for call centres

INDICATORS	GENERAL STANDARD
Accessibility to service (AS)	≥ 90 per cent
Average wait time (AWT)	≤ 240 seconds
Level of service (LS)	≥ 80 per cent

The general call centre quality standards and service obligations are applicable to all electricity and gas suppliers gradually starting with the larger companies as of 1 January 2008 for suppliers with more than 100,000 consumers at 31 December 2006 with low voltage and/or low pressure; as of 1 July 2008 they apply to suppliers with more than 50,000 consumers at 31 December 2007 with low voltage and/or pressure; finally, as of 1 January 2009 to smaller suppliers.

An innovative part of the provision sets a call centre ranking, updated and published each semester. The ranking will be determined by a scoring system (through a bonus) resulting from the companies' voluntary decisions leading to a level of quality that is higher than the minimums set by the Authority. The bonuses will be assigned according to services particularlyappreciated by customers, such as: toll-free calls (even from the mobile network); easy to follow automated response system; wider availability of the service; the opening of offices accessible to the public for at least 35 hours a week; the presence of online services; call management mechanisms during peak hours.

The Authority also particularly recognizes joint initiatives with consumers' associations to improve telephone services, including the start of procedures for out-of-court settlements of service disputes. Also contributing to gaining points in the ranking is customer satisfaction revolving around the call centres, as observed in a survey that the Authority

will conduct on a regular basis every six months starting from 2008. The rankings with scoring by call centre quality will be published in the first quarter 2009 based on the previous six months' results. The introduction of new commercial telephone service quality standards has the double objective of protecting customers who contact their suppliers through the call centres and satisfying demands for differentiation and competitiveness among operators, taking into account that electricity and gas sales operations are open to free competition and commercial telephone services are an important component in their marketing strategies.

Balancing

Since April 2004, a Dispatching Services Market (MSD) has been in operation in the Italian electricity market designed to ensure "physical" balancing between electricity supply and demand, addressing imbalances between scheduled and actual flows. In this market, TERNA procures the necessary resources for solving congestion problems, for balancing, and to ensure an adequate reserve system. The MSD operating rules are described in detail in the previous year's Annual Report to the European Commission.

In 2007, the Authority introduced several significant changes to dispatching rules to regulate TERNA's forward procurement of dispatching resources and the procurement of such resources from abroad in exceptional critical situations.

As for the first issue, with Resolution no. 130/07, the Authority for the first time approved, on an experimental basis for the year 2007 only, several forward procurement procedures using transparent mechanisms for several dispatching service resources, including: in-service; rolling switching reserve; cold switching reserve; switching reserve without specification of status; and the ready reserve without gradient constraints. Resolution no. 111/06 allows TERNA to procure the necessary resources for the management and balancing of the system not only through the MSD, but also through the signing of forward contracts with operators through transparent and neutral procedures. The possibility of procuring some resources on a forward basis could allow TERNA to better manage requirements for various resources on the MSD, ensuring at the same time cost stability. Resolution no. 130/07 also allows TERNA to submit a proposal for drafting final procedures at the conclusion of multi-year procurement contracts for new production capacity provided by open cycle turbine plants units. This provision is designed to ensure the system the necessary reserve of power from peak plants such as those listed, ensuring an adequate return on investment in this specific sector.

Resolution no. 184/07 introduced some changes to dispatching rules aimed at preventing possible critical problems in the running of the electricity system in exceptional conditions that may arise during some hours in particularly hot days in the summer and extremely cold days in the winter. In such conditions, in combination with particularly high demand, supply may become scarce also due to the lack of market mechanisms for the balancing of natural gas that could lead operators to export electricity rather than allocating it to covering the domestic market, as occurred for example in the winter of 2005-2006. With Resolution no. 184, the Authority has allowed TERNA, in the exceptional critical conditions described above, to import electricity into Italy through contracts for the purpose signed with operators that have energy available (producers and traders) on foreign markets, as an extreme measure to cover the domestic demand. The Authority also

established that any charges incurred by TERNA for the procurement of such power will be included in dispatching costs. The resolution requires TERNA to fully report to the Authority and the Ministry of Economic Development on any contracts signed and their cost.

In addition, through Resolution no. 350/07, the Authority, in the framework of merit order dispatch regulations, set at 3% the threshold below which imbalances per consumption unit are priced by the Day-Ahead Market, and extended TERNA's right to submit additional offers on that market with the aim of containing procurement costs for dispatching resources. The Resolution also calls for application of unbalancing fees at a marginal price to the qualified units only. This measure protects cogeneration units of more than 10 MVA that, since they are sizable units, are negatively affected by any unbalancing that, because of their technical nature, they experience difficulty in controlling. So starting from 2008, marginal price unbalancing is reserved only for those units participating in the MSD.

3.1.4 Regulation of unbundling

Consistent with Directive 2003/54/EC, Italian law 125 of 10 August 2007 introduces as of 1 July 2007 mandatory legal unbundling for electricity distribution companies that supply more than 100,000 consumers. Distribution companies that exceed this threshold shall, within 180 days of the law's coming into effect, form separate sales companies to which to transfer equipment, accounts, assets and liabilities attributable to sales operations.

Until that date, most distribution companies continued to operate also in the captive consumers sales market. Legislative decree 79/99, implementing EU directive 96/92/EC, introduced mandatory legal unbundling, but limited to distribution and sales services offered to captive consumers only for companies that supplied more than 300,000 consumers. Later, law no. 239 of 2004 amended this provision, establishing that "companies that own distribution plant feeding more than 300,000 customers may form one or more public companies" to which to transfer assets and liabilities, equipment, and accounts attributable to distribution and sales operations for non-eligible consumers.

In 2007, the electricity distribution sector counted 138 operators, of which only 11 supplied more than 100,000 customers and therefore subject to mandatory legal separation. The operators with significant market shares are ENEL (around 86% of distributed volumes), AceaElectrabel, AEM Milano, ASM Brescia, and IRIDE (the latter formed in 2006 with the merger between AEM Torino and AMGA Genova). In contrast, there were 52 distribution companies with fewer than 1,000 withdrawal points.

In January 2007, with Resolution no. 11/07 (Unbundling Code), the Authority completed the reform of rules on administrative and accounting unbundling applicable to gas and electricity companies started during the course of 2005. The unbundling rules set in 2001 by Resolutions 310 and 311 for the electricity and gas sectors, respectively, were limited to the mandatory accounting and administrative unbundling rules to ensure operational neutrality in grid operations.

The Unbundling Code is basically designed to achieve the following objectives on the separation of grid operations from all other liberalised activities jointly exercised by vertically integrated operators:

- operational neutrality in infrastructures with concession contracts and, more in general, in essential infrastructures for the development of a free energy market;
- neutral management in commercially sensitive and significant information for the fair development of competition;
- absence of cross subsidies among operations, especially among those subject to tariff regulations and those exercised in markets not subject to tariff regulation, i.e. in the midst of the liberalisation process;
- certain, uniform, and detailed information flow on the operating performance and capital structure of the companies operating in the electricity and gas markets, with a particular focus on the cost structure, consistent with aims of the regulations established by law no. 481/95 on the promotion of competition and efficiency, as well as the setting up of a certain and transparent tariff system.

Hence the provision adopted by the Authority is coherent with the formulation of the European Directive for the electricity industry 2003/54/EC, which provides for administrative unbundling in terms of functional separation aimed at having an impact on the companies' corporate governance (the set of processes, policies, habits, rules, and institutions that influence how a company is managed and controlled), with the objective of guaranteeing the independence and unbundling of the management of only the services essential to the liberalisation of the energy industry, with reference to the interests of companies operating at the same time in the liberalised activities. At the same time, the provision introduces a major simplification of the provisions on the accounting separation of activities for the gas and electricity sectors, also providing for the use of information deriving from so-called cost accounting.

In view of the depth of the change and its wide-ranging effects, the Authority allowed around one year for the complete implementation of the mandatory functional separation, especially for the obligation of organizational changes within the company, such as the formation of an "independent operator" with a mandate for the separation and the drafting of "implementation programmes" aimed at making internal company processes consistent with the aims of the functional separation. As for metering activities, the Authority introduced a transitory scheme in derogation of the mandatory functional separation, by which until 1 January 2010 distribution and metering activities may be exercised jointly, with immediate compliance with the provision on accounting separation only. In addition, on 26 June 2008 the Authority published a consultation document that illustrates the guidelines that will have to be followed by operators affected by the mandatory unbudling in drafting their implementation programmes.

Concerning transmission activities, see the information set out in paragraph 3.1.3.

3.2 Competition issues

3.2.1 Description of the wholesale market

Electricity demand reached 339.9 TWh in 2007, a 0.7% increase on the year and peaked in December when it reached 56.8 GW.

National net generation increased by 0.02%, while the foreign balance increased by 2.9% on the year.

Table 3.14 Aggregate electricity balance in Italy in 2007

GWh

	2007	2006	Change
Gross production	313,888	314,090.3	-0.1%
Ancillary services	*12,589*	*12,864.3*	*-2.1%*
Net production	301,299	301,225.9	0.02%
Energy for pumping	*7,653.6*	*8,751.9*	*-12.5%*
Net production for consumption	293,645.5	292,474	0.4%
Foreign balance	46,282.7	44,985	2.9%
Grid demand	**339,928.2**	**337,459**	**0.7%**
Grid leakages	*20,975.7*	*19,925.7*	5.3%
Consumption	**318,952.5**	**317,533.2**	**0.4%**

Source: TERNA.

Net thermoelectric generation increased by 1.5% to around 254 TWh. Natural gas production increased by 9.3% in 2007, in parallel with a 33.3% contraction in the production of oil products.

Renewable source generation actually decreased. While net hydroelectric generation decreased by 11.4%, wind generation increased by 36.1% and solar generation jumped 1630.8%.

The foreign balance amounted to 46,282.7 GWh, measured as the difference between imports, amounting to 48,930.8 GWh (+5%), and exports, amounting to 2,648.1 GWh (+64.4%). The foreign balance increased by 2.9% on the year in 2007, covering 13.6% of demand.

Imports from Switzerland increased by 20.7% on the year to 28,864.5 GWh, while imports from Slovenia decreased by 40% and from Greece by 81.6%.

The increase in exports was mainly attributable to Greece (1,127.9 GWh) and Slovenia (297.7 GWh).

In line with the trend of recent years, ENEL's share of net electricity generation decreased further in 2007 to 31.3%, while Edison's market share increased to 13.7%. ENI was the third producer with 9.7%, followed by Endesa Italia 8%, and Edipower 8%.

The Herfindahl-Hirschman Index (HHI) calculation for net generation showed a decreased in market concentration from 1,636 in 2006 to 1,418 in 2007.

Table 3.15 Development of the wholesale market

	Demand[(A)] (TWh)	Peak demand (GW)	Net installed capacity (GW)	No. of companies with >5% share of net generation	% share of net generation of the three main companies
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

(A) Net of energy for pumping and before grid leakage.

Source: AEEG calculations on TERNA and producers' data.

Maximum net installed capacity at 31 December 2007 amounted to 93,598.3 MW. Meanwhile, net available capacity (available for at least 50% of the time) was 77,574.9 MW.

Five operators accounted for more than 5% of net installed capacity: ENEL (43.2%), Edipower (9.2%), Edison group (8.8%), Endesa Italia (7.7%), and ENI group (5.7%). Based on this data, the top three operators accounted for 61.2% of net installed capacity.

On the contrary, taking into account net available capacity (available at least 50% of the time), it is as follows: ENEL (48.2%), Edison group (10.6.%), Edipower (8.2%), Endesa Italia (8.1%), and ENI group (6.4%). The top three operators accounted for 67% of net available capacity.

The Herfindahl-Hirschman Index (HHI) calculation for maximum net installed capacity showed a slight decrease in market concentration from 2,265 in 2006 to 2,126 in 2007.

The HHI for net available capacity in 2007 was 2,629.

Electricity market structure

The regulated power exchange managed by the company Gestore del Mercato Elettrico S.p.A. (GME, or Electricity Market Operator) is divided into two sub-markets: the day-ahead market (MGP), where hourly electricity trades are carried out for the following day; the adjustment market (MA), which allows operators to make changes to the plans set on the MGP through further buy or sell offers.

After these there is the dispatching service market (MSD) where TERNA procures the necessary resources for transmission and dispatching and to ensure the security of the electricity system.

Once fully in place, dispatching rules call for the active participation of demand in all these markets, but the provisional regulations for the year 2006, extending into 2007 and 2008, call for the participation of demand only in the MGP.

Participation of demand only in the MGP has made it necessary to activate provisional mechanisms to offset the reduced negotiating flexibility that it would have had to face not being able to participate in the MA and the MSD. These mechanisms are:

- scheduled unbalancing, allowing entities owning contracts signed outside the offer system to submit unbalanced injection and withdrawal schedules on the MGP;
- bilateral adjustment platform for demand (PAB), where balanced hourly electricity trades can be carried out by operators that manage withdrawal offer points in the same geographical area.

One factor that contributes further to the system's flexibility is the coming into effect in May 2007 of the forward energy account platform (PCE) which in effect replaces the previous bilateral platform. The operating procedures for the PCE are described in Resolution no. 111 of 9 June 2006 (and later amendments and additions) and the GME regulations.

For 2007, regulations call for a lowering of the tolerance threshold for unbalancing penalties from 7% per year in 2006 to 3% in 2007.

In addition, to allow demand the necessary time to learn how to efficiently manage negotiations on the MGP, electricity market regulations allow TERNA to submit additional offers on the MGP so that the resulting level of demand on the MGP does not stray more than 5% in absolute terms from its own projections. This mechanism was extended into 2007, but with a threshold of 2%.

As for the fourth consecutive year, the number of registered operators on the GME increased, reaching 127, up by 23% on 2006 and 74% on 2004. This growth is mainly attributable to operators active on the MGP, reaching 89, driven by those active on the sales side, while the number of operators was almost unchanged: 32 on the MA and 19 on the MSD ,.. Only the number of participants on the PAB decreased, down to 37, as did volumes traded on this platform, attributable to the introduction of the PCE, which provided a more efficient response to the need for demand flexibility previously assigned to the PAB.

The Day-Ahead Market

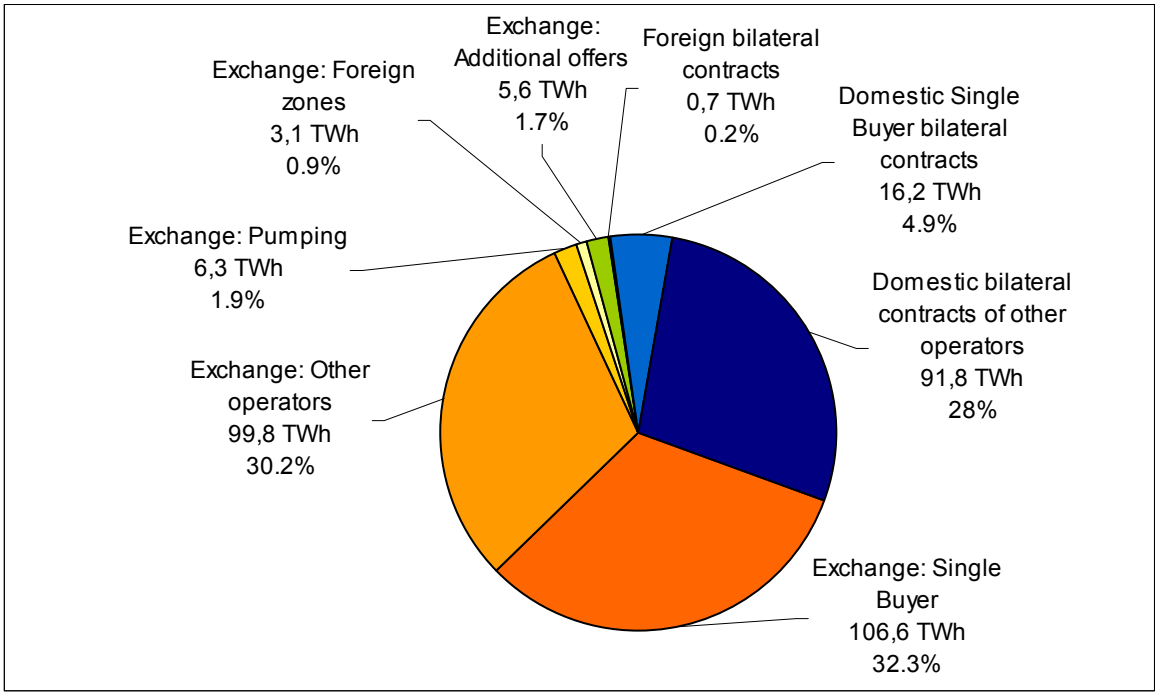
Electricity demand on the MGP amounted to 330 TWh in 2007, up 0.05% on the year.

Volumes exchanged reached 221 TWh, a 12.6% increase on the year. As a result, average market liquidity increased from 59.6% in 2006 to 67.1% in 2007.

The increase in liquidity, which can be interpreted as a sign of greater competitiveness on the PowerExchange, is largely attributable to the increase in both sell and buy transactions by non-institutional operators (other than Acquirente Unico S.p.A., the GSE[10], and TERNA), mainly concentrated in the second half of 2007.

[10] Gestore dei Servizi Elettrici S.p.A. (GSE) is a government-owned company (Ministry of Economy) that promotes, provides incentives for, and develops renewable sources in Italy. It wholly owns the companies Acquirente Unico S.p.A. (AU – Single Buyer) and Gestore del Mercato Elettrico S.p.A. (GME – Electricity Market Operator).

Figure 3.3 Composition of electricity demand in 2007



Source: AEEG calculations of GME data.

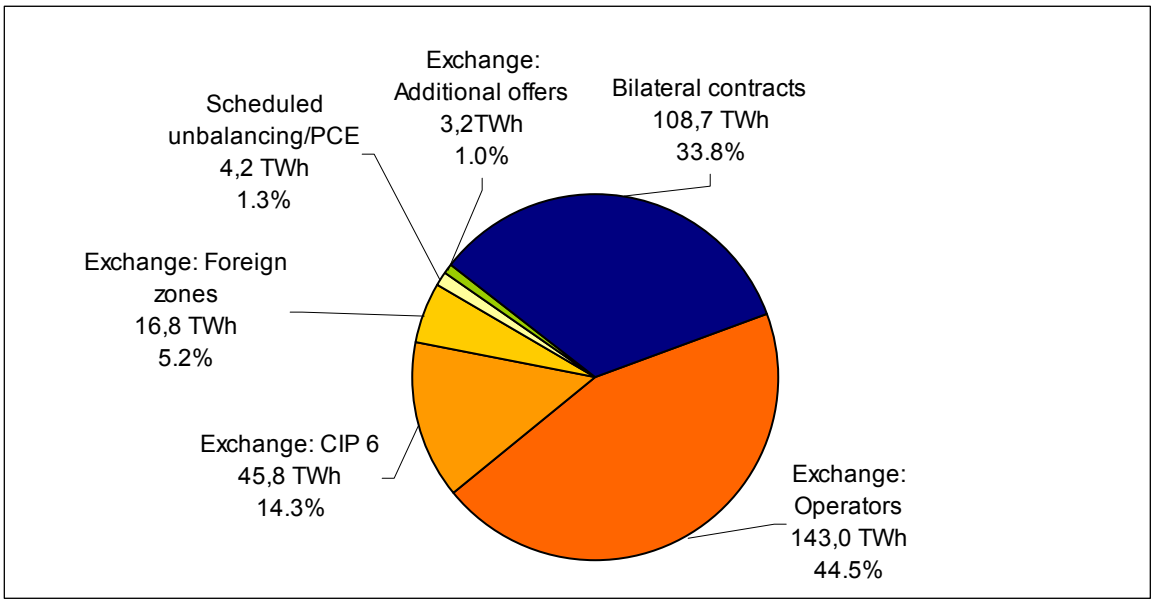
As a result of the steady contraction in the captive market and the complete liberalisation of the market of 1 July 2007, demand from the Single Buyer, Acquirente Unico S.p.A, decreased by a further 19.4% on the year. This trend was at the same time balanced by the substantial increase in demand from other operators from 49.7 TWh in 2006 to 99.8 TWh in 2007.

Demand underlying bilateral contracts decreased a total of 18.5% on the year, amounting to 108.7 TWh. The decrease mainly affected bilateral contracts with foreign counterparts, down by 43.5% on the year, and, to a lesser extent, bilateral contracts with the Single Buyer (-22.2%) and bilateral contracts with other domestic operators (-17.5%).

Supply from domestic operators on the Power Exchange increased by 15.7% on the year, reaching 143 TWh for all of 2007. In addition, the contribution of foreign supply increased to 16.8 TWh, distributed evenly over the course of the year. Only supply from CIP6 entities[11] decreased slightly, for a total of 3 TWh.

[11] Electricity generating plants fuelled by renewable sources or similar for which an economic incentive is provided for.

Figure 3.4 Percentage breakdown of electricity supply in 2007



Source: AEEG calculations on GME data.

The additional offers on the supply side amounted to 3.2 TWh, a 4.7% increase on the year. The demand side amounted to 5.6 TWh, an around 46.6% increase on the year.

The average purchase price on the Italian Power Exchange (PUN) was 70.99 €/MWh, down by 3.8 €/MWh or 5.0% from 2006.

The decrease in PUN in the early months of 2007 was in part attributable to the temporary relaxing of tensions on the international oil markets in the first half of the year and, in parallel, the relatively low natural gas import prices in Europe. Another cyclical variable to take into account is the 4.4% year-on-year decrease in demand in the first quarter 2007.

Particularly significant is the peak reached in November when the average purchase price reached its historical peakof 90.82 €/MWh, up by 22.7% compared to November 2006, due to price tensions on the central European Power Exchanges. The increase in price levels and volatility was concentrated in the middle part of the month, when a significant decrease in net imports also took place, leading to exports at times, due to the high prices on the neighbouring European power exchanges.

The HHI concentration index by geographical area, calculated on effective energy sales and sale offers (accepted and not accepted) clearly shows that there are critical structural problems due to the level of development of competition on the supply side. This situation is especially visible in Central and Southern Italy.

The marginal market participant index shows there is a single company per macro-zone capable of setting the Power Exchange price. Nonetheless, there was a slight improvement in the competitive situation in 2007 compared to 2006: while percentage of total volumes traded on which the marginal market participant set the price was more than 80% nationally in all months in 2006, in 2007 this percentage was less than 80% in five months.

The Adjustment Market and the Bilateral Adjustment Platform

On the MA, the market whose purpose is to change the schedules defined on the MGP, the weighted average monthly price was highly correlated to the PUN. In 2007 the average purchase price, weighted for trading volume, was 69.36 €/MWh, 2.3% lower than the PUN. The weighted average price on the MA decreased by 8.2% year-on-year. Average volumes were 3.9% of overall demand on the MGP.

In 2007 volume on the bilateral adjustment platform (PAB), where the balanced hourly electricity trades are carried out by operators that manage withdrawal offer points in the same geographical area can be recorded, was 3.3 TWh, a 60.5% decrease on the year. Volumes on this market was 1% of the volume on the MGP.

The Dispatching Service Market

Step-up *ex ante* purchases on the MSD amounted to 14.6 TWh, a 19.8% increase on the year. Step-down quantities sold *ex ante* was 12 TWh, a 15.8% decrease on the year. These volumes were 4.4% and 3.6%, respectively, as a ratio to total volume on the MGP, with noticeable monthly variations. There were more step-up offers in June and August (5% and 5.6%, respectively, over monthly demand) and, similarly, step-down offers reached their monthly peaks in June (4.3%) and July (3.9%).

In 2007 on the step-up *ex post* MSD TERNA bought 9.3 million MWh, a 15.3% decrease on the year, corresponding to 2.8% of volumes traded on the MGP. On the step-down *ex post* MSD, TERNA sold 10.7 million MWh, up 33.4% on the year, corresponding to 3.2% of volumes on the MGP.

Trading on the Power Exchange and bilateral trading

Energy traded on the Power Exchange increased during 2007 compared to 2006, but at the same time a decrease in the share of energy traded through bilateral contracts on the MGP was recorded. Overall, energy procured through bilateral contracts on the MGP amounted to 108.7 TWh. Detailed information on the duration of such contracts is not available.

Table 3.16 The electricity market

TWh

	MGP Trading			
		of which on Powerexchange	*of which bilateral*	*of which forward*
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*	-

Source: AEEG calculations on GME data.

The 18.5% decrease in energy traded through bilateral contracts is attributable to the 43.5% decrease in volumes traded with foreign counterparts, the 22.2% decrease in bilateral contracts with the Single Buyer, and the 17.5% decrease in bilateral contracts with domestic operators other than the Single Buyer.

Table 3.17 Bilateral contracts on the MGP in 2007

TWh

	2007	2006
Bilateral contracts	108.7	133.3
Domestic	108.0	132.0
of which Single Buyer	*16.2*	*20.8*
of which other operators	*91.8*	*111.2*
Foreign	0.7	1.3

Source: AEEG calculations on GME data.

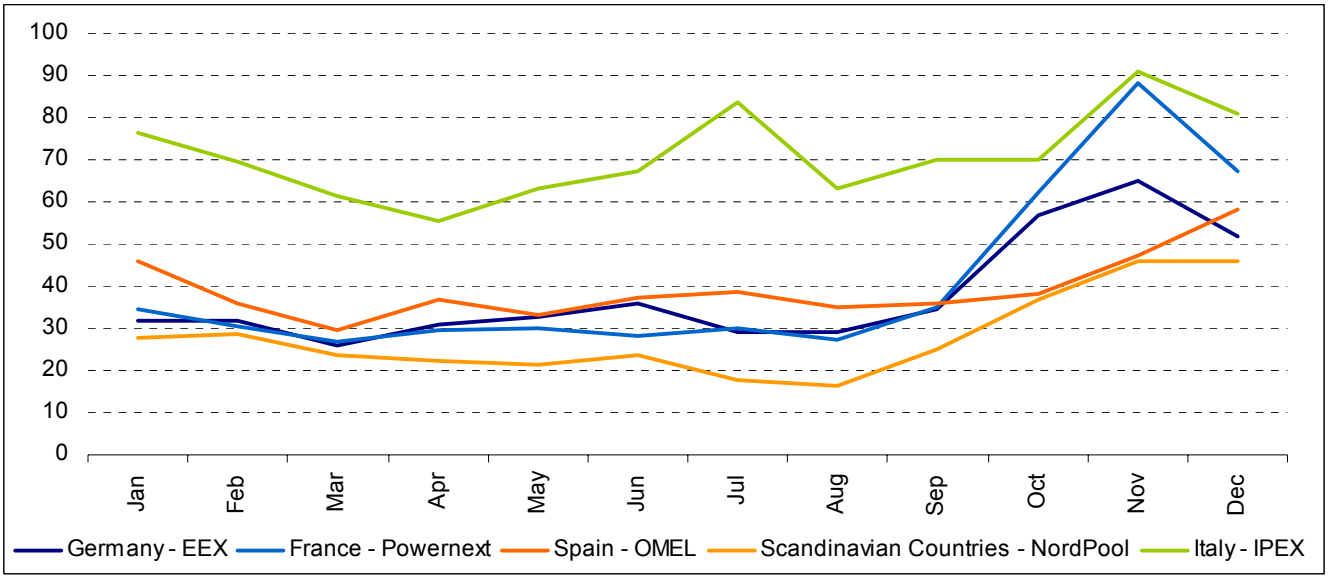
Degree of integration of the Italian market in Europe

As for integration between the Italian market and neighbouring countries' markets, price differential between the Italian Power Exchange and the main foreign Power Exchanges continued to be significant.

In detail, the average wholesale electricity base-load price was 38 €/MWh on the German exchange (EEX), 40.9 €/MWh on the French exchange (Powernext), 39.3 €/MWh on the Spanish exchange (OMEL), and 27.9 €/MWh on the Scandinavian exchange (NordPool). These prices are in contrast to the 71 €/MWh recorded on the Italian exchange MGP (IPEX).

Figure 3.5 Electricity price trends on the main European power exchanges in 2007

Average baseload prices: €/MWh



Source: AEEG calculations on European power exchange data.

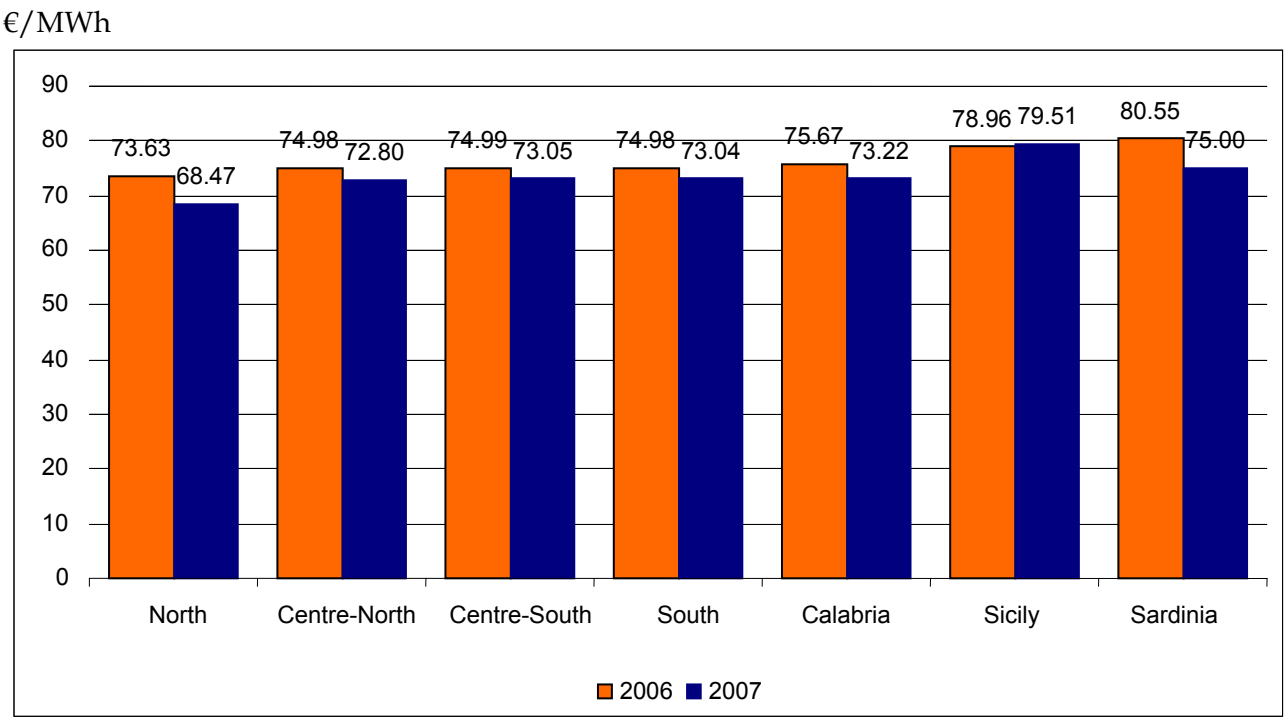
In the first quarter 2007, when there were less tensions on the oil markets and the level of demand was relatively low due to the exceptionally mild winter, monthly wholesale prices for electricity on the main European exchanges were rather moderate in all European countries, including Italy. In the last four months of the year, European prices rose again in the wake of higher oil prices.

The spread between the IPEX price and prices on other European exchanges triggered significant import flows during the year, concentrated in peak hours in correspondence to the higher price differences.

Though this trend was on the whole constant throughout 2007, it slowed significantly starting in October. In November, prices increased noticeably in France, Italy, and Germany. In detail, prices on Powernext were higher than on the IPEX, triggering an increase in export flows, especially during peak hours, leading to a decrease in imports during both peak hours and off-peak hours. The noticeable increase in prices on the French electricity market was largely attributable to the wave of strikes that extended to the energy industry and a breakdown at a nuclear power plant.

Zonal sale prices varied from 68.47 €/MWh in Northern Italy, once again the zone with the lowest prices, and 79.51 €/MWh in Sicily. Compared to 2006, prices decreased in line with the annual PUN decrease, ranging from -7% in northern Italy and Sardinia to around -3% in the other macro-zones, except for Sicily where prices increased by 0.7%.

Figure 3.6 Average zonal prices in 2007



Source: AEEG calculations on GME data.

The Energy Account Platform (PCE)

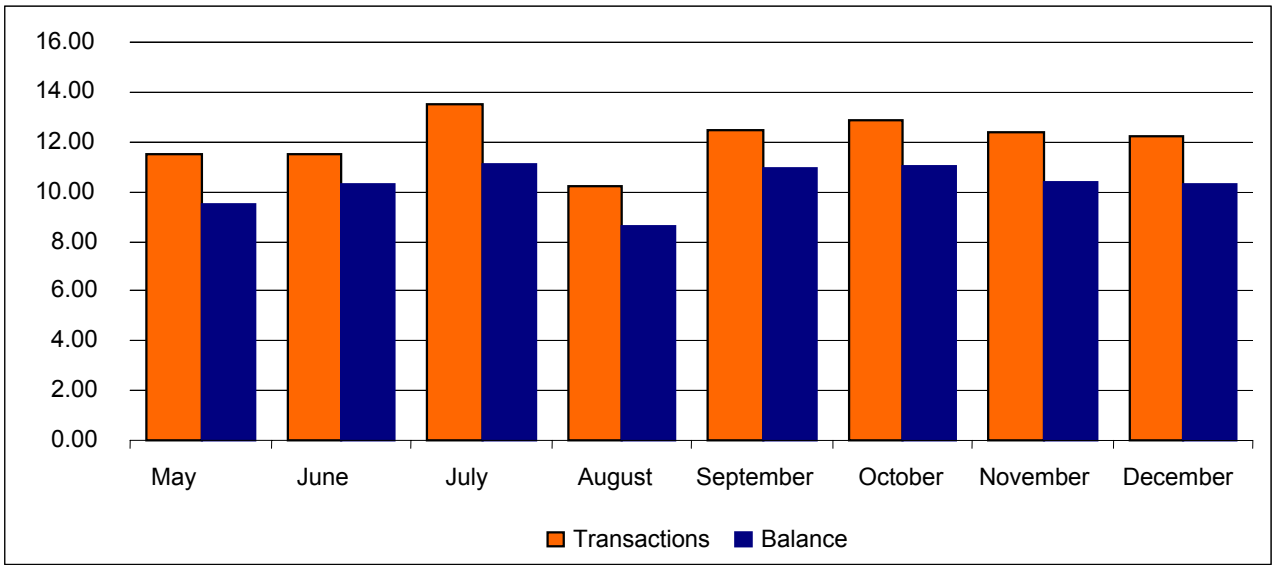
The PCE is the new platform for registration of bilateral contracts on which operators can register the quantities and durations of deliveries for forward contracts two months ahead

of the physical delivery. In general, each operator has one or more energy injection accounts and one or more energy withdrawal accounts. In each of these accounts, the operator may record purchases and sales provided that, in a new record, the net balance is a net sale in the first case and a net purchase in the second case. The account balance determines the quantity of energy that can be delivered/withdrawn or sold/purchased on the MGP.

The delivery of forward contracts signed as of April began in May. Traded volumes in 2007 showed that operators made widespread use of the flexibility offered by the new platform. Total transaction volume amounted to 96.7 TWh on a net position of 82.2 TWh.

Figure 3.7 PCE transactions in 2007

TWh



AEEG calculations on GME data.

The PCE allows for the registration of five types of contracts, four standard (baseload, peakload, off-peak, and weekend) and one non-standard. In 2007, in every month of the year, the non-standard contract type was the most used, while the most common standard contract was the baseload. Finally, the only weekend contracts were signed in May.

The electricity industry consolidation process in 2007

The industry consolidation process continued in 2007, especially in the electricity distribution and sale sector.

The major transaction was the incorporation of A2A through the merger of ASM Brescia S.p.A. into AEM Milano S.p.A. in December 2007.

As per the merger plan approved by the respective shareholders' meetings on 22 October 2007, the merger became legally effective as of 1 January 2008 when AEM S.p.A. changed name to A2A S.p.A.

In 2007, the two companies had combined installed capacity, owned or directly managed, of around 3.4 GW. In 2007, they sold a combined 28 billion kWh of electricity and 4.6 billion cubic meters of gas, while they distributed 12 billion kWh of electricity and 1.8 billion cubic meters of gas.

On 14 November 2007, Edison and Dolomiti Energia signed an agreement for the incorporation of a joint hydroelectric company in the province of Trento. The agreement calls for the transfer to a limited liability company of the company branches running three hydroelectric plants, owned by Edison, with a total installed capacity of around 180 MW and average potential generation of 500 million KWh per year, and the transfer of 51% of the company's share capital to Dolomiti Energia. Edison will retain the remaining 49% of the share capital.

On 6 December 2007, Edison and Cofathec Servizi, a Cofathec group company, signed an agreement by which Cofathec will acquire seven thermoelectric plants operating under CIP6/92 rules with a total installed capacity of around 540 MW. In addition, Edison will directly transfer to Cofathec Servizi its 70% equity investment in the company that controls the plants in Boffalora (province of Milan). Moreover, the minority shareholder Seci Energia Srl exercised its right of pre-emption on the transfer of the 70% equity investment in the company that controls the plant in Celano (province of L'Aquila).

At the European level, ENEL acquired Endesa, which had an impact on the structure of the Italian market. In the spring of 2007, the Italian company ENEL and the Spanish company Acciona made a take-over bid for 100% of the share capital in Endesa S.A. The take-over bid had a positive outcome in October with ENEL and Acciona acquiring 92% of Endesa (67% ENEL, 25% Acciona). At the same time, ENEL and Acciona signed an agreement with E.On, a German company and European leader with a presence in Italy, by which the former committed to transferring 10,000 MW located in several countries, including Italy, through the transfer of Endesa Italia. At the conclusion of the ENEL/Acciona take-over bid for Endesa and in fulfilment of the commitments made to the European Commission in the wake of its antitrust investigation, in November 2007 ENEL and Acciona appointed an international merchant bank (ING) as trustee for Endesa Italia. The bank monitored compliance with the commitments made by ENEL and Acciona. Among these, Endesa Italia will continue to have independent management. Hence ING acted on behalf of the European Commission until Endesa Italia effectively became part of the E.On group in late June 2008.

Authority action in the development of renewable sources, generation, and high yield cogeneration

With Resolution no. 90 of 11 April 2007, in implementation of the decree of the Ministry of Economic Development of 19 February 2007, in accord with the Ministry of Environment, the Authority laid down the rules for the start-up of the Energy Account to provide incentives for solar energy generation. The aim of this mechanism is to provide incentives for energy generation, reaching at least 1,200 MW of installed electricity.

In detail, the Authority regulated conditions for the construction of solar generation units in terms of connections to the electricity grid and measurement of the energy generated, with a view to setting incentive tariffs. The Authority also laid down conditions and

procedures for admissibility in the Energy Account and the setting of a tariff and a premium, as well as obligations to be fulfilled in the running of plant eligible for incentives and procedures for gathering the resources for the release of the incentive and the running of operations as per Ministerial Decree of 19 February 2007. The Electricity Services Operator (Gestore dei Servizi Electrici – GSE) implements these provisions, actively cooperating with the Authority in establishing them.

The Authority also set down rules to facilitate the withdrawal of electricity generated by generation units fed by renewable sources and medium/small generation units hooked up to the distribution network, providing producers with greater certainties and simplified procedures (so-called "dedicated withdrawal"). In detail, with Resolution 280/07, the Authority regulated procedures for the dedicated withdrawal of electricity by the GSE. In this framework, the GSE plays the role of commercial middleman between producers and the electricity system, regulated by an agreement for the purpose. The grid operator, whose plant is connected, continues to physically withdraw the electricity, as well as provide metering and recording services. The new dedicated withdrawal set-up became effective as of 1 January 2008.

To update the regulatory framework for distribution, with Resolution no. 40 of 26 February 2007, the Authority introduced a procedure to evaluate the impact on the electricity system of small/medium-sized plants hooked up to the distribution network. The later consultation documents no. 9 and no. 10 dated 26 February 2007 came in this context. Consultation document no. 9/07 – on the technical and economic conditions for the hook up of generation plants to the electricity grids with the obligation of third party connection with nominal voltage of less than or equal to 1 kV – results from the growing interest towards the exploitation of renewable sources and cogeneration based on useful heat demand in the domestic energy market. This is reflected in the need to reset the technical and economic conditions for the connection of electricity generation plants to the low voltage distribution grids. Consultation document no. 10/07 aims at clarifying the measurement of electricity generated by generating plants, specifically cases where measurement is functional to the implementation of a regulation that calls for explicit use of it, such as the case of solar energy generating plants eligible for energy account incentives or the release of green certificates.

Finally, in consultation document no. 31 of 31 July 2007, the Authority explained its views on the setting of regulations for on-the-spot trading[12] for high yield cogeneration, setting up a more innovative distribution service than the previous set-up adopted for plants up to 20 kW fed by renewable sources.

[12] The on-the-spot trading service allows for net metering between injections of electricity into the grid generated by plants and withdrawals of electricity from the grid where generation and consumption are not simultaneous and where the injection point and withdrawal point for the electricity exchanged coincide. In practice, it is as if the grid is used to store electricity injected when there is no consumption need, then withdrawing it from the grid when it is needed.

3.2.2 Description of the retail market

Attitude towards liberalisation

Based on the final data calculated by the operator of the national transmission system (TERNA), in 2007 total volumes sold on the retail market amounted to around 298 TWh, while total consumption (including self-consumption) amounted to 319 TWh. Table 3.18 shows the breakdown of total consumption by sector.

Table 3.18 Breakdown of national consumption by sector in 2007

TWh

Sector	2006	2007	% Change
Industry	156.1	155.8	-0.2%
Services	88.3	90.3	2.3%
Household	67.6	67.2	-0.6%
Agriculture	5.5	5.7	3.6%
Total	**317.5**	**319.0**	**0.4%**

Source: TERNA.

As of 1 July 2007, all low voltage users are considered free, hence they may choose their supplier and negotiate supply conditions, save for the right of domestic customers and small companies to remain in the "protected market" and pay tariffs set by the Authority. For further details on the complete liberalisation of the retail sector, see paragraph 3.1.1.

In view of the structural changes occurring in 2007, according to data that operators provided to the Authority, captive market consumption (including the greater protection and safeguarding services in the second half 2007) decreased by 13.7% from 138.4 TWh in 2006 to 119.4 TWh in 2007, while consumption on the free market increased by 17.4% from 154.7 TWh in 2006 to 181.7 TWh in 2007[13].

Sales to domestic customers on the captive/enhanced protection market amounted to around 62 TWh in 2007, one-fifth of the total volume provided on the retail market, coming from more than 75% of total withdrawal points, i.e. around 27 million. A negligible number of domestic customers supplied themselves on the free market in the second half 2007, with less than 40,000 withdrawal points calculated with the *pro die* criteria.

The number of operators providing the enhanced protection service in the second half 2007 was 130, of which 120 were also electricity distributors and around 100 also providers of the safeguarde service. Of the latter, around 70 effectively served customers eligible for the scheme. In the free market, on the contrary, 135 companies operated in the retail segment. The number of operators (traders and/or retail companies) affiliated with an electricity distributor was 39, while 61 were associated with an electricity producer.

[13] Volumes sold on the free market in 2006 was calculated based on the data provided by distributors, while volumes sold in 2007 was calculated based on the data provided by traders and sales companies. Volumes for 2006 amounted to 5 TWh and for 2007 to 6 TWh, in both cases including volumes from the so-called special tariff schemes.

In the enhanced protection market, Enel Distribuzione was once again leader by sales in the second half 2007 with a 78% market share. The three main operators – Enel Distribuzione, AceaElectrabel Elettricità (11.1%), and AEM Distribuzione Energia Elettrica (3.3%) – account for 92.3% of the enhanced protection market.

As for the safeguarde service, in the second half 2007 Enel Distribuzione had the highest market share, 88.6%, followed by AceaElectrabel Elettricità with 3.4% in 2007, and AEM Distribuzione Energia Elettrica with 3.0%.

The degree of concentration of the free market is less than that of the captive market (enhanced protection and safeguarde market). The combined market share of the main three operators was 42.7% in 2007.

In the overall retail market (captive in the wide sense and free), three operators had more than 5% market share in 2007: ENEL (46%), Edison (7%), and AceaElectrabel (7%).

Table 3.19 shows the details for the three consumption classes.

Table 3.19 Retail market: market shares of the main three operators by consumption class

Annual consumption class	No. of operators with more than 5% market share	Combined market share of the main three operators
< 50 MWh	2	84%
50 MWh – 2000 MWh	3	53%
> 2000 MWh	6	65%
Total	**3**	**60%**

Source: AEEG calculation on data provided by the operators.

Taking into account exclusively sales on the free market as a whole, 5 companies had a market share of 5% or greater: ENEL (24.7%), Edison (11.5%), ENI (6.7%), Axpo (5.9%), and AceaElectrabel (5.4%).

As part of its annual survey of operators, the Authority observed that the annual switching rate in 2007, calculated in terms of withdrawal points, was 1.9%. Table 3.20 shows the details for three voltage ranges. The calculation method used takes into account the number of customers that were already on the free market and that changed supplier, and customers that went from the captive market (protected and safeguarded) to the free market and vice versa, while excluded from the calculation withdrawal points that formally changed supplier, though still remainingwith a supplier of the group they had started with.

Table 3.20 Retail customer switching rates in 2007

Voltage ranges	Switching rates (withdrawal points)
LV	1.9%
MV	22.6%
HV	28.2%
Total	**1.9%**

Source: AEEG calculation on data provided by the operators.

Retail electricity tariffs

To make the tariff structure applied to domestic customers compatible with the ongoing liberalisation process, the Authority set a "transition tariff" for electricity to be applied to those customers as of 1 July 2007, waiting the definition of a final tariff system including the "social tariff" (i.e. tariff for vulnerable clients). This "transition tariff" was the first step in a more comprehensive process of reviewing the entire tariff system that also involves redefining the protection mechanisms in favour of ….. domestic customers. The Authority published three consultation documents on this process in 2007. In late 2007, the Italian Government established the primary legal framework for the protection of vulnerable customers which will come into effect in 2008 and will require further provisions by the Authority.

Electricity prices paid in 2007 by standard consumers defined on the basis of the price reporting method used by Eurostat until June 2007, and their breakdown, are illustrated in Table 3.21.

Table 3.21 Retail electricity tariffs

Year 2007, €/MWh

Standard customer (Eurostat definition)	Dc	Ib	Ig
Electricity price (A)	83.25	96.59	87.62
Transmission and distribution tariffs (B)	75.13	45.91	9.48
Grid leakages	9.32	4.93	4.47
Regulatory charges (c)	17.75	21.00	17.66
Taxes (excise duty and VAT)	47.95	27.47	9.07
TOTAL PRICE BEFORE TAXES (Eurostat)	**233.40**	**195.90**	**128.30**

Notes:

A) Costs for ancillary generation services and the equalization of generation costs are included in the electricity price. This item includes marketing services.

B) The distribution tariff also includes measurement costs, the equalization of transport costs, and quality of service improvement costs.

C) Regulatory charges include: stranded costs, incentives for renewable sources, other costs not associated with generation and grid services.

Source: AEEG.

The standard domestic costumer price for annual consumption of 3,500 kWh (Dc) is the mathematical average of the tariff in effect on 1 January 2007 and the enhanced protection service price in effect as of 1 July 2007. In both cases, for the energy part, these are the prices that the Authority sets on the basis of the Single Buyer's procurement costs; by law, the Single Buyer's tasks is to ensure electricity supply to captive market customers until 30 June 2007 and to customers who use the enhanced protection service as of 1 July 2007.Among non-domestic customers, for Ib customers consuming 50 MWh and Ig customers consuming 24,000 MWh on an annual basis, the prices set out in Table 3.21 refer to, for the energy part, the mathematical average of tariffs in effect on 1 January 2007 on the captive market and safeguarded prices as at 1 July 2007, set provisionally by the Authority for the July-September 2007 period for entities that continued to procure that service through the Single Buyer. For the year 2008, retail prices will be reported according to the new method designed by Eurostat and will also take into account prices formed on

the free market. The price net of taxes that Eurostat publishes is not only net of excise duty and VAT, but also net of regulatory charges.

Complaints and notifications

The increase in the processing of complaints, reports and notifications coming from individual customers and consumers' associations accelerated significantly in 2007. In the period spanning from 1 April 2007 to 31 March 2008, out of 4,306 notices forwarded to the Authority, 2,776, or 64%, regarded the electricity sector. Of these notices, 93% were complaints, 4% requests for information, and the remaining 3% notifications.
A detailed analysis shows that 33.4% of the notices regarded billing, 17.2% the interpretation and application of contract clauses, 1.8% commercial quality, 15.0% market issues, 9.6% the quality of supply, voltage and interruptions, 9.0% hook-ups, 4.9% tariffs, 2.6% meters, 1.6% disconnections, 1.3% bills and their transparency, and 0.4% measurement.

Table 3.22 Notification issues received by the Authority in the last two years

Issues	April 2006-March 2007		April 2007-March 2008	
	Number	%	Number	%
Interruptions and voltage	215	17.1	267	9.6
Hook-ups	135	10.7	250	9.0
Billing	408	32.4	926	33.4
Contracts and commercial quality	179	14.2	528	19.0
Measurement	21	1.7	12	0.4
Tariffs	36	2.9	135	4.9
Bills	17	1.4	37	1.3
Market	81	6.4	418	15.0
Meters	47	3.7	72	2.6
Disconnections	43	3.4	45	1.6
Other	75	6.0	86	3.1
TOTAL	**1257**	**100.0**	**2776**	**100.0**

Source: AEEG calculations and data.

As for electricity distribution and sale, there was a noticeable increase on the year in notices concerning tariffs, supply interruptions/voltage, and hook-ups. There were also remarkable increases in notices concerning billing (especially for bill adjustments for withdrawal points not read for some time, often following the replacement of electro-mechanical metering units, for double billing) and contract problems. The number of notices regarding free market sales operations, triggered by the increase in the number of switching procedures and supplier switching, due to the full liberalisation of the market of 1 July 2007 are increasingly important.

Finally, notices with lower frequency classified in the "other" category amounted to 3.1% of the total. This category includes notices regarding the electricity grid, security, technical quality, call centres, energy theft, taxes, and arrears.

3.2.3 Measures against the abuse of dominant position

In 2007, the Authority for Electricity and Gas continued with its task of promoting competition in the wholesale market.

The Authority particularly focused on Enel Produzione's virtual power plant (VPP) allocation procedure.

Since 2005, with Resolution no. 212/05, the Authority has been proposing the adoption of VPPs, by which Enel Produzione would be temporarily obligated to transfer a portion of its available production capacity to third parties, not belonging to the same group, in pre-set quantities and at prices set according to a competitive procedure based on rules verified by the Authority.

To transfer virtual production capacity for the year 2006, ENEL ran two competitive procedures, one on 30 November 2005 and the other on 13 December 2005, to set a base premium at auction, but no allocation of capacity ensued.

On 20 December 2006, the Antitrust accepted the commitments assumed by ENEL, making them mandatory, in exchange for the closure of the survey on abuse of dominant position on the Italian Power Exchange that began in April 2005. At the same time, ENEL assumed an even wider commitment than in the original version, holding a virtual capacity transfer procedure for 2007 for 1,000 MW in Southern Italy and 1,000 MW for 2008. In implementation of the commitments assumed as per article 14 ter of law no. 287/90 and approved by the Antitrust Authority, starting on 21 December 2006 Enel Produzione initiated the procedure for allocating virtual production capacity for the year 2007 in which users of dispatching or delegated entities could participate.

The 1,000 MW of virtual production capacity was broken down into set bands of 5 MW on which bids where submitted. Enel Produzione offered two-way contracts for differences by which the two parties settle between them the difference between the market price (corresponding to the average zonal price in the day-ahead market in southern Italy weighted on the quantity accepted for sale in such zones) and the allocation strike price for a beforehand identified number of hours (called the activation period) for the entire virtual capacity set in the contract. In detail, Enel Produzione offered three types of contracts: baseload contracts, for all the hours of the year (allocation strike price 69.32 €/MWh); off-peak contracts, for the 0-8 and 20-24 time bands on working days and for all hours on weekends and holidays (50.80 €/MWh); peak contracts, for the 8-20 time band on working days (102.60 €/MWh).

For each contract, Enel Produzione allocated virtual production capacity for the bands demanded at the allocation strike price until the virtual production capacity made available was used up based on several criteria. In detail, if the total quantity demanded for each contract was:

- equal to or less than the allocable quantity, a maximum contract quantity of 60% of the allocable quantity would be set for each bidder;
- greater than the allocable quantity, a maximum contract quantity of 20% of the allocable quantity would be set for each bidder.

In addition, after applying such criteria, if the total quantity demand was:

- even higher than the amount allocable for each contract, a progressive reduction of 5 MW (corresponding to the band) of the quantity demanded by the bidders determined by lot until the value of the totally allocable quantity was reached;
- below the allocable quantity for each contract, an increase in the maximum contract quantity by a percentage that would have allowed for the allocation of the entire allocable quantity.

Bids submitted in the allocation procedure held on 28 December 2006 were 10 times higher than the supply offered in each contract. Thirty operators were awarded contracts, including the Single Buyer – the public company that supplies the captive market – awarded 120 MW, of which 65 MW baseload, 25 MW peak, and 30 MW off-peak.

Table 3.23 Results of the virtual capacity allocation for 2007

Contract	Bidders	Number of bands demanded	Bids allocated	Number of bands allocated
Baseload contract (from 0 to 24 every day)	22	1,460	13	130
Peakload contract (from 8 to 20 Monday to Friday)	20	816	13	70
Off-peak contract (remaining hours)	13	722	11	70

Source: ENEL.

A virtual production capacity allocation procedure has also been held for the year 2008, the result of which is reported in Table 3.24. For the baseload contract the allocation strike price was 76 €/MWh, for the peakload 108.65 €/MWh, and for off-peak 57.8 €/MWh.

Table 3.24 Results of the virtual capacity allocation for 2008

Contract	Bidders	Number of bands demanded	Bids allocated	Number of bands allocated
Baseload contract (from 0h to 24h every day)	31	1,961	21	100
Peakload contract (from 8h to 20h Monday to Friday)	29	1,029	16	50
Off-peak contract (remaining hours)	25	865	17	50

Source: ENEL.

The Authority also held several initiatives to ensure a sufficient level of transparency and competitiveness in energy sales in view of the complete opening of the electricity market scheduled for 1 July 2007. The Authority's objective is to put consumers, especially domestic customers, in a condition to be able to consciously choose their suppliers, also ensuring the reliability of the electricity sales companies.

In addition to the Commercial Code of Conduct and the Price Comparison Notes, the Authority intends to develop further tools to help consumers compare sale offers submitted by suppliers (e.g. consumer annual expense calculation engines, synthetic indices, independent sites to compare sale offers).

With Resolution no. 61 of 9 March 2007, the Authority also began a procedure to lay down rules for running sales operations. Such rules will be designed to protect consumers, ensuring them an adequate level of bargaining power and information in their relations with suppliers. The rules will also regard the suppliers' features, as well as clarity in their offers. In detail, the Authority intends to:

- set minimum mandatory information requirements on electricity sales companies;
- introduce a register of energy retail sales companies, setting the minimum requirements that operators must satisfy to be enrolled in the register;
- ensure that consumers have adequate knowledge of the sales companies through the publication of a directory of the companies included in the register held by the Authority.

4 REGULATION AND PERFORMANCE OF THE NATURAL GAS MARKET

4.1 Regulatory issues

4.1.1 Overview

In view of the slow progress in the upgrading of infrastructures to import natural gas (including re-gassifiers), Italy is still quite far from a situation in which the supply of capacity meets the growing demand. The availability of abundant infrastructure capacity is a necessary condition, though not sufficient, for a competitive market to guaranting security. Security and competition move at the same pace, and today both are below desirable levels in the national gas market.

To facilitate the development of gas transport and storage infrastructures, the Authority has introduced regulations that provide incentives, but the current situation confirms the need to support any action that accelerates development projects. Among those started or simply proposed: natural gas pipelines, re-gassifiers (especially important for supply diversification), and storages.

Italy completely opened the market in 2003 (when all customers became free to choose their own suppliers) and in 2000 gas transport and gas sale operations have been separated and access to networks has been regulated: since than no further steps in market opening have been adopted.. However, as already mentioned in previous years the adoption of advanced regulation is still necessary but it is not a sufficient condition for introducing real competition to the market.

Regarding the wholesale market, though in 2004 the Authority had set out a process for the set up of a balancing market and a gas exchange, through Resolution no. 22/04, the persistence of the incumbent's strong dominant position has prevented it.

To date, then, there is no organized platform for centralized gas trading, hence instruments are traded solely on the OTC. However, the Authority recently published a consultation document laying down the basis for the formation of an exchange, also in view of the new gas flows expected in the near future (e.g. 8 G(m^3) from Qatar that will feed the new LNG terminal in Rovigo, the gas from the upgrading of the TTPC natural gas pipelines from Algeria, and of the TAG for Russian gas, as well as numerous import projects). On the other hand, it is difficult to develop a real gas exchange in a market where the dominant operator controls the large majority of all imports.

In the retail market, a recent law has basically confirmed the protection regime for natural gas supply economic conditions set by the Authority back in 2003. Regulation has been designed to promote equal conditions among suppliers amongst themselves so as to allow consumers to make increasingly conscious and informed decisions regarding supply choice.

In 2007, competitive procedures for the selection of the provider of last resort were successful. The procedures are similar to those for the electricity sector, providing for continuity of supply to consumers that are temporarily without a supplier.

4.1.2 Allocation of interconnection capacity and congestion management mechanisms

Table 4.1 shows the results of the allocation of continuous gas transport capacity at the start of the thermal year 2007-2008 and the results of the thermal year already underway.

Compared to capacity[14] made available in the previous thermal year, at the start of the 2007-2008 thermal year allocable capacity at the Mazara del Vallo point increased by 4.9 M(m³)/day after the Mazara-Menfi, Montalbano-Messina methane pipeline came into service and the repowering of the Enna plant. These upgrades became necessary as a result of the 6.5 G(m³) increase in natural gas pipeline capacity from Algeria, of which 3.2 in service as of 1 April 2008 and the remaining 3.3 coming into service as of 1 October 2008.

Transport capacity at the other entry points are the same reported last year.

Table 4.1 Continuous transport capacity in Italy

M(m³) standard per day, unless otherwise indicated; thermal year 2007-2008

ENTRY POINT TO THE NATIONAL GRID	AMOUNTS AT THE START OF THE THERMAL YEAR				AMOUNTS AT 30/06/2008	
	ALLOCABLE	ALLOCATED	AVAILABLE	SATURATION (%)	ALLOCATED	SATURATION (%)
Passo Gries	58.0	52.8	5.2	91.0%	58.0	100.0%
Tarvisio	100.9	84.9	16.0	84.1%	92.6(C)	91.8%
Mazara del Vallo	90.0(A)	69.2(A)	20.8	76.9%	88.0	97.8%
Gorizia(B)	2.0	0.0	2.0	0.0%	0.5	25.0%
Gela	25.6	21.9	3.7	85.5%	25.6	100.0%
TOTAL	**276.5**	**228.8**	**47.7**	**82.7%**	**264.7**	**97.5%**

(A) Maximum capacity allocable and allocated as of June 2008.
(B) Imports through the Gorizia point are a "virtual" transaction due to the lesser physical volume exported.
(C) Maximum capacity allocated in December 2007.

Source: AEEG calculations on Snam Rete Gas data.

The results of allocation for the thermal year 2007-2008 show that almost 83% of continuous transport capacity at the entry points into the national grid connected by natural gas pipeline with abroad was allocated to 50 operators at the beginning of the thermal year. . However, in view of the further capacity made available during the thermal year, the ratio of total capacity allocated to allocable capacity increases by around 15 percentage points.

In the previous thermal year, 2006-2007, 29 operators had demanded continuous capacity and 4 interruptible capacity at the national grid entry points and the capacity demanded was entirely satisfied.

[14] It is worth reiterating that transport capacity amounts are calculated through hydraulic simulations on the transport grid that take into account expected withdrawal scenarios for the year in question. Transport capacity at each entry point is determined by taking into account the heaviest transport scenario (the summer period for the entry points at Mazara del Vallo, Tarvisio and Gorizia, and the winter period for the entry point at Passo Gries). In detail, Snam Rete Gas measured the maximum quantities that can be injected into the grid at each entry point without exceeding the minimum pressure constraints at the various points in the system and without exceeding maximum performance at the plants. This is to ensure availability of the transport service at the level demanded throughout the thermal year.

The table does not take into account the Panigaglia entry point, whose 13 M(m³) daily allocable capacity, based on current procedures, is allocated to the Panigaglia terminal operator, GNL Italia, that puts gas into the grid on account of its own re-gasification customers, i.e. to allow efficient use of transport capacity at the terminal interconnection point.

Multi year allocations

Table 4.2 Allocations at the national grid entry points interconnected by natural gas pipeline with abroad for the thermal years from 2008-2009 to 2013-2014

M(m³) standard per day

	ENTRY POINTS				
	TARVISIO	MAZARA DEL VALLO	PASSO GRIES	GELA	GORIZIA
THERMAL YEAR 2008-2009					
Allocable capacity	100.9	99.0	59.4	25.6	2.0
Capacity allocated	87.5	77.5	52.9	21.9	0.0
Available capacity	13.4	21.5	6.5	3.7	2.0
THERMAL YEAR 2009-2010					
Allocable capacity	100.9	99.0	59.4	25.6	2.0
Capacity allocated	87.5	77.5	52.2	21.9	0.0
Available capacity	13.4	21.5	7.2	3.7	2.0
THERMAL YEAR 2010-2011					
Allocable capacity	100.9	99.0	59.4	25.6	2.0
Capacity allocated	87.4	77.5	52.2	21.9	0.0
Available capacity	13.5	21.5	7.2	3.7	2.0
THERMAL YEAR 2011-2012					
Allocable capacity	100.9	99.0	59.4	25.6	2.0
Capacity allocated	87.1	77.5	50.8	21.9	0.0
Available capacity	13.8	21.5	8.6	3.7	2.0
THERMAL YEAR 2012-2013					
Allocable capacity	100.9	99.0	59.4	25.6	2.0
Capacity allocated	87.1	76.4	48.8	21.9	0.0
Available capacity	13.8	22.6	10.6	3.7	2.0
THERMAL YEAR 2013-2014					
Allocable capacity	100.9	99.0	59.4	25.6	2.0
Capacity allocated	0.0	0.0	0.0	0.0	0.0
Available capacity	100.9	99.0	59.4	25.6	2.0

Source: Snam Rete Gas.

Table 4.2 summarizes multi year capacities allocated at national grid entry points interconnected by natural gas pipeline with abroad. As provided for by Authority rulings, capacity for the next five years starting from 2009-2010 was allocated this year to a total of 23 operators with multi year import contracts. The Table sets out also the thermal year 2008-2009 with multi-year capacity allocated last year.

Rules for the allocation and management of interconnection capacity

The allocation of capacity for continuous transport service on the national grid occurs once a year and during the year (Resolution no. 137/02, see *2005 Annual Report*). During the thermal year, the transport company allocates the capacity that is or becomes available, in part as a result of increases in capacity or the start-up of new delivery and redelivery points on a monthly basis (starting from the following month). To obtain such capacity, operators must submit a request to the transport company within 7 working days of the publication of capacities that have become available.

In the case of entry points interconnected with abroad, the annual allocation frequency is maintained, but two years in advance and with the option of extending the allocation for five years for owners of multi year import contracts, limited to the daily average contract quantity.

In addition, as anticipated last year, with Resolution 2 July 2007, the Authority changed transport capacity allocation rules, introducing allocations during the year with the aim of maximizing imports, especially during the system's critical procurement periods, and making them more flexible. The transport company may allocate capacity during the year according to the following criteria and procedures:

- at the start of the thermal year, at the same time as the allocation of annual transport capacity and starting from the start of the thermal year, or once the thermal year has started only in the case of multi year contracts whose coming into effect is during the thermal year;
- during the thermal year, starting from the month after the month in which the allocation is made;
- according to an order of priority that puts longer duration allocations first;
- for a total allocation duration that does not exceed the duration of the import contracts;
- considering as included in the import contract duration the months within which the effective date and/or the end date fall.

Allocations during the year or of duration not exceeding the year, strictly depend on the effective availability of foreign gas in view of the current lack of import infrastructures and consistent with the import maximization measures that the Ministry of Economic Development could put into place in case of a national supply emergency.

There is also the possibility of interruptible capacity allocations in cases of allocated and non-nominated capacity.

In view of potential winter emergencies, the Authority gave the Ministry of Economic Development its favourable opinion of the draft decree containing measures on natural gas import maximization and storage for the security of the gas system for the 2007-2008 winter season (Resolution no. 202/07), suggesting that the decree explicitly identifies the institution (the Ministry of Economic Development according to current regulation)responsible for evaluating the subsistence of proven causes of *force majeure* that, if ascertained, authorize the use of strategic storage if capacity allocated is not used and there is a lack of imports.

The Ministry issued decree 30 August 2007, for the period from 5 November to 31 March 2008, making it mandatory for companies that own natural gas transport capacity at each entry point into the national natural gas transport grid interconnected with abroad to maximize the total injections of gas into the grid, completely using their transport capacity, taking into account the maximum amounts allowed in the import contracts and their management. Unused allocated capacity resulting from non-import are considered as non-authorized virtual withdrawals from strategic storage and hence paid on a pre-set basis.

As for capacity conveyances on the secondary market, the transport company charges the capacity buyer the same transport tariff that applies to the original buyer when the exchange takes place on the secondary market. In general, however, secondary market exchanges are based on bilateral contracts between the buyer and seller according to freely negotiated conditions.

Finally, as already illustrated in the *2005 Annual Report* , regulations on transport contracts and tariffs do not call for specific conditions for transit; nonetheless transit volumes in Italy are limited.

4.1.3 Regulation of transmission and distribution companies

Gas transport ownership structures did not significantly change on the year, though the number of transport companies slightly increased as a result of the reclassification of some networks from distribution network to transport network. The gas transport network, organized into the national network and regional network, is operated by a restricted number of companies: 2 for the national network and 7 for the regional network. The main company, Snam Rete Gas S.p.A., owns 31,082 km of network out of around 32,900 km that comprises the Italian natural gas transport system. The second larger operator is Società Gasdotti Italia S.p.A. which operates 1,263 km of network, including 120 on the national network. Then there are 5 small operators, (Retragas Srl, Metanodotto Alpino Srl, Carbotrade S.p.A., Consorzio della Media Valtellina per il Trasporto del Gas, and Netenergy Service Srl) that own small segments of regional network.

Transport activities are regulated by Network Codes which are drafted by the transport companies on the basis on the Criteria set by the Authority and finally approved by it. The transport grid Codes have been in effect since 1 October 2003 and they are constantly updated.

As for natural gas distribution activities, the ownership concentration process that began in recent years continued in 2007. However, distribution network ownership is still fragmented across around 300 distributors (down from around 430 in 2005), and still led by ENI group which controls around 26.1% of the market as measured by volumes sold.

The extension of the distribution networks in Italy's regions is illustrated in Table 4.4.

Table 4.2 Extension of the distribution grid in 2007

km

REGION	NETWORK EXTENSION		
	HIGH PRESSURE	MEDIUM PRESSURE	LOW PRESSURE
Val d'Aosta	0.3	165.5	191.7
Piedmont	107.7	11,295.2	10,871.4
Liguria	57.4	1,874.8	4,114.8
Lombardy	98.2	13,561.2	30,224.8
Trentino Alto Adige	185.0	1,975.9	1,948.2
Veneto	225.2	10,723.8	17,466.4
Friuli Venezia Giulia	5.1	1,890.2	4,469.8
Emilia Romagna	372.2	15,615.7	11,929.2
Tuscany	201.1	5,723.8	8,914.0
Lazio	178.7	6,445.1	7,340.1
Marche	31.5	4,070.0	4,297.1
Umbria	105.1	1,734.2	3,062.7
Abruzzi	1.4	3,850.1	4,435.3
Molise	5.2	967.3	981.9
Campania	17.4	3,276.2	7,157.8
Apulia	89.6	2,916.7	7,383.9
Basilicata	0.8	763.4	1,508.0
Calabria	35.7	2,013.3	3,242.5
Sicily	62.4	3,505.9	7,279.9
Not in operation	6.9	179.5	174.6
Total	**1,787.0**	**92,548.0**	**136,994.2**

Source: AEEG calculations on data provided by the operators.

In 2004, the Authority set rules for the access and supply for the natural gas distribution service, providing that companies in this segment shall operate according to a Network Code. In 2006, the Authority drafted a standard Network Code. Since then, all distribution companies must draft their own Network Code, with the option of adopting the standard Network Code or sending the Authority for its approval a draft code based on the Standard Code set by Authority. In 2007, the Authority approved the Network Code for the largest distribution company Società Italiana per il Gas S.p.A. (Italgas – an ENI group company), and it updated and amended the network codes of other distribution companies.

In December 2007, the Authority amended some parts of the standard Network Code, mainly regarding meter reading.

Table 4.5 Regulation of transmission and distribution companies

	Number of regulated companies	Estimated grid rates[A] €/m³		
		I4 (418600 GJ)	**I1** (418.6 GJ)	**D3** (83,7GJ)
Transmission	2+5	0.0177[A]	0.0280[B]	0.0305[C]
Distribution[D]	338	-	0,0552	0,0801

(A) Refers to gas transport from the entry point with a 0.9 load factor and a 0.68 exit and redelivery load factor, a distance of 12 km on the regional network.

(A) Refers to gas transport from the entry point with a 0.9 load factor and a 0.32 exit and redelivery load factor, a distance of 12 km on the regional network.

(C) Refers to gas transport from the entry point with a 0.9 load factor and a 0.27 exit and redelivery load factor, a distance of 12 km on the regional network.

(D) average GCV = 38.73.

Source: AEEG calculations on data provided by the operators.

Transport tariffs

Resolution no. 166/05 sets the tariff system criteria for the "second four-year regulatory period", from 1 October 2005 to 30 September 2009 (see *2006 Annual Report*). As a result, in August 2007, before the start of the new thermal year, the Authority approved the transport tariffs for the thermal year 2007-2008 set by the companies based on the tariff criteria that the Authority set out at the start of the regulatory period.

As mentioned earlier, the number of transport companies increased as a result of the reclassification of some networks from distribution networks to transport networks. Then, after checking the information received, with Resolution no. 205 of 2 August 2007, the Authority approved the transport tariffs for the companies Carbotrade S.p.A., Consorzio della Media Valtellina, Edison Stoccaggio S.p.A., Netenergy Service Srl, Retragas Srl, Società Gasdotti Italia S.p.A., Snam Rete Gas S.p.A., and Metanodotto Alpino Srl.

With Resolution no. 205/7, the Authority introduced temporarily for the thermal year 2007-2008 a unit tariff fee CV^F in addition to the variable unit fee in allowing for the increase in costs incurred by the transport company for gas purchases for compression and grid leakage. However, the Authority has not yet quantified the fee amount because it is making a comprehensive audit of the transport network balancing equation because of some inconsistencies that emerged in the three previous years.

The Authority set the new tariff levels for the LNG re-gasification service at Italy's only operating terminal, located in Liguria and managed by the company GNL Italia S.p.A. (wholly-owned by ENI group) after checking the tariff proposals that the company submitted based on the criteria set out in Resolution no. 178 of 4 August 2005.

The second regulatory period for the re-gasification tariffs set in Resolution no. 178/05 will end on 30 September 2008.

Hence, in September 2007 the Authority started up proceedings for the regulation of re-gasification tariffs in the third regulatory period that will run from October 2008 to

September 2012. With a view to regulatory stability, the main tariff regulation revisions contained in Resolution 7 July 2008include:

- the replacement of the current corrective factor with a guarantee factor that ensures the company a portion of its revenues and which is covered through the transport tariff system;
- application of the profit sharing criteria, recognizing in favour of companies, in the first year of the new regulatory period, a portion of productivity gains made during the previous regulatory period;
- application of productivity gains only to the revenue constraint components pertaining to operating costs, excluding depreciation and amortization for the purposes of applying the price cap;
- for the new terminals no recovery of productivity gains is foreseen, while for existing terminals, recovery of productivity gains includingthe profit sharing allowed in favour of the companies in eight years;
- a distribution of revenues such that the share of revenues attributable to operating costs flows into the commodity component and the share of revenues attributable to capital flows into the capacity component, prescribing that such component may not be lower than 90% of recognised revenues;
- retaining of rules that provide incentives for new investments, including the introduction of efficiency and cost-cutting mechanisms;
- the possibility of setting tariffs for the providing of any further services associated with, but not included in, the re-gasification service offered by the company if the costs allowed for the re-gasification service include the underlying costs.

Distribution tariffs

As is the case with transport tariffs, distribution tariffs are set by the companies based on criteria laid out by the Authority at the start of each four-year regulatory period. Each year the Authority checks and approves the tariffs of the distribution companies based on their respective revenues.

The second regulatory period for natural gas distribution and metering services, currently regulated by Resolution no. 170 of 29 September 2004, will also end on 30 September 2008. The second regulatory period was heavly characterized by a high level administrative dispute, causing constant uncertainty over the tariffs set for the distribution service. Only with the approval of tariffs for the 2007-2008 thermal year in 2007 have service tariffs for most distributors been approved with enough timeliness.

In view of the imminent end of the second regulatory period, in September 2007 the Authority initiated proceedings for drafting new rules. Submitted through consultation,, the recommendations call for a clear departure from the rules in effect in the first and second regulatory periods and a shift towards a new regulatory set-up that favours a reduction in disputes and gives both distributors and consumers more certainty.

The main guidelines for the reform of the current regulatory set-up are:

- review of the criteria for measuring allowe invested capital;
- breakdown of the allowed revenue constraints into one part by company and another part by location, so as to ensure maximum flexibility in changing operators;
- review of tariff zones for the application of tariffs and the introduction of equalization mechanisms to allow for greater tariff uniformity at the local level;
- review of the tariff structure and reduction of the impact of seasonal conditions on company revenues;
- setting of separate tariffs for distribution, metering and marketing operations.

In addition, the tariff system for the third regulatory period will have to take into account the provisions of Italian Law no. 222 of 29 November 2007 (converting Decree Law no. 159 of 1 October 2007) on competition and the quality of essential services in the natural gas distribution sector and, in detail, on recommendations for the setting of minimum tariff zones for the holding of tender offers for natural gas distribution services. In this context, the Authority believes that:

- the number of distribution companies is still too high and must be reduced to achieve enough critical mass to ensure efficient use of the production factors;
- the rights acquired so far cannot be put into question if they are in compliance with law;
- incentives for mergers must aim at compensating such rights with a view to putting new concessions into effect more quickly.

The natural gas distribution service and, more in general, local public services, are currently subject to numerous pending legal and regulatory changes that could have a significant impact on the market structure.

Storage tariffs

In 2006, when the first storage regulatory period ended, with Resolution no. 50/06 the Authority laid down the criteria for setting storage service tariffs for the second regulatory period (1 April 2006 – 31 March 2010). Since then, in order to promote the upgrading and development of new storage facilities with rising costs, a single national tariff has been applied. To ensure that each company can recover the revenues attributable to it, there is an equalization system that calls for an additional variable fee applied to energy handling.

For a detailed description of the storage tariff, see *2007 Annual Report*.

As per Resolution no. 50/06, storage companies have submitted to the Authority the necessary data for checking tariff for the 2007-2008 thermal year. With Resolution no. 78/07 the Authority approved tariff and set single national fees (Table 4.6) and unit fee reduction percentages for interruptible storage capacity for the 2007-2008 thermal year recommended by Stogit S.p.A. and Edison Stoccaggio S.p.A., respectively (Table 4.7).

Table 4.6 Single national storage fees included in the tariff

FEES	VALUE
unit fee for space f_S	0.166261 (€/GJ/year)
unit fee for injection capacity f_{PI}	9.088074(€/GJ/day)
unit fee for distribution capacity f_{PE}	11.690370 (€/GJ/ day)
unit fee for gas handling CVS	0.103441 (€/GJ)
unit fee for strategic storage f_D	0.159156 (€/GJ/year)

Table 4.7 Percentage decrease in unit fees f_{PI} and f_{PE} for Stogit's interruptible storage capacity

Thermal year 2007-2008

		Allocation duration		
		Entire period	Monthly	Daily
STOGIT S.p.A.	% decrease in f_{PI}	30%	20%	5%
	% decrease in f_{PE}	30%	20%	5%
Edison Stoccaggio S.p.A.	% decrease in f_{PI}		70%	
	% decrease in f_{PE}		70%	

Balancing

With a view to reforming gas balancing, in 2007 the Authority defined new profiles for standard gas withdrawal and use categories (Resolution no. 7 of 2 February 2007).

With this provision, the Authority amended its previous Resolution no. 138/04 in order to implement a new allocation process in terms of responsibilities and operating schedules and procedures of the operators involved, deemed essential for achieving the objective of daily balancing and the setting up of a balancing market. With the same Resolution, the Authority established the standard withdrawal profiles that will have to be used uniformly throughout Italy. These provisions came into effect as of 1 October 2007.

After these new provisions, with Resolution no. 247 of 2 October 2007, the Authority updated the standard Network Code for the distribution service to acknowledge the amendments introduced by Resolution no. 138/04 and define the standard withdrawal profiles as per Resolution no. 17/07.

In April 2008, the Authority published a consultation document (DCO 10/08) for the development of a balancing market.

Table 4.9 Categories of gas use set by Resolution no. 17/07

Cooking
Hot water
Cooking + hot water
Technology (artisan and industrial)
Air conditioning
Individual/central heating
Individual heating + cooking + hot water
Individual heating + cooking
Individual heating + hot water
Central heating + cooking + hot water
Central heating + hot water
Technology + heating
Air conditioning + heating

4.1.4 Unbundling regulation

Since 1 January 2002, transport activities have been subject to mandatory legal separation from all other gas industry activities, except for storage activities that must in any case be separate in terms of accounting and management from transport activities. Hence storage activities are subject to mandatory company separation from all other gas industry activities except transport. Distribution activities are subject to legal separation from all other gas industry activities.

Transport

In Italy the main transport company, Snam Rete Gas, is a 50.03% subsidiary of the incumbent ENI (at 12 April 2008). As per the provisions of the 2007 Budget Law passed in late 2006 (revising the previous term set by law no. 290/03), ENI will have to sell its shares exceeding 20% of Snam Rete Gas share capital within 24 months of the Snam Rete Gas privatization decree. However, at June 2008, the decree had not yet been issued.

As mentioned above, Snam Rete Gas S.p.A., owns 31,082 km of network out of around 32,900 km, or 94.5%, that comprises the Italian natural gas transport system.

The second larger operator is Società Gasdotti Italia S.p.A. which manages 1,263 km of network, or 3.5%, of which 120 km of the national network. Incorporated in 2004 by the sale of Edison T&S to the private equity fund Clessidra Capital Partners, since February 2007 it has been owned by ABN Amro Global Infrastructure Fund. The fund's general partner is ABN Amro Infrastructure Capital Management Ltd., which is part of Fortis Investments. However, Edison group still manages the network as per a management contract.

There are also five minor operators that own small segments of regional network, altogether 2.1% of the Italian natural gas transport system. These companies are:

- Retragas S.p.A., incorporated and controlled by the distribution company ASM Brescia S.p.A. which to date is subject to the direction and coordination of A2A S.p.A., the new company incorporated from the merger between two distribution companies AEM S.p.A. and ASM Brescia;
- Netenergy Service Srl, owned by Consorzio di Sviluppo Industriale della Valle del Biferno, which operates in Molise;
- Metanodotto Alpino Srl, which operates in Piedmont (Alta Val Chisone and Alta Val di Susa);
- Carbotrade S.p.A., which operates a network in Piedmont, mainly in the province of Cuneo;
- Consorzio della Media Valtellina per il Trasporto del Gas, which operates in Lombardy.

As mentioned above, despite some noteworthy mergers in recent years, distribution is still fragmented over around 340 distributors. Of these, around 70% distribute only natural gas; the rest distribute natural gas along with other types of gas or only other types of gas (such as LPG).

Distribution

At the start of each year, the Authority carries out an in-depth survey of the electricity and natural gas markets. Some 296 companies with natural gas distribution operations responded to the natural gas market survey in 2007, of which 21 stated that they remained inactive during the year. Of the 296 companies responding, a little more than half (154), were affiliated with at least one natural gas sales company.

Table 4.10 Natural gas distributors' activities in 2007

OPERATORS	2007
NUMBER	**296**
Very large (more than 50,000 customers)	7
Large (from 100,000 to 500,000 customers)	25
Mid-sized (from 50,000 to 100,000 customers)	30
Small (from 5,000 to 50,000 customers)	126
Very small (less than 5,000 customers)	87
Inactive	21
VOLUME DISTRIBUTED (in millions of m^3)	**31,398**
Very large (more than 50,000 customers)	15,303
Large (from 100,000 to 500,000 customers)	8,282
Mid-sized (from 50,000 to 100,000 customers)	3,589
Small (from 5,000 to 50,000 customers)	3,864
Very small (less than 5,000 customers)	359
Inactive	0

Source: AEEG calculations on data provided by the operators.

For a long time, the number of companies operating in the gas distribution segment has been decreasing noticeably: ten years ago, there were more than 800 such operators and in 2004 there were still more than 500 of them. Nonetheless, the gas distribution segment in Italy is still highly fragmented. Of the 275 operators active in 2007, only seven were classified as very large (i.e. with more than 500,000 customers served); 25 had 100,000-500,000 customers, and 30 companies were mid-sized (i.e. serving 50,000-100,000 customers). Hence less than 1/8 of the companies operating in the Italian gas distribution segment have more than 100,000 customers, the threshold that triggers mandatory functional separation as per the Authority's unbundling regulations, and almost 1/3 of the companies active in gas distribution have the obligation of accounting separation, since 87 operators serve less than 5,000 customers. Moreover, the breakdown of companies by distribution volume shows that the top 32 mid-size/large companies account for 75% of total volumes, while the remaining 243 small/very small companies distribute just 1/4 of total volumes.

Broken down by asset ownership, the results of the responses to the Authority's 2007 survey are set out in Table 4.11. It shows that around 1/3 of distributors completely own the infrastructures that they manage; when not the suppliers, the owners of the infrastructures are usually the municipalities in which they operate. Co-ownership is usually between the public authority and the distributor or between the distributor and third-party companies: for example, there are only 19 cases where ownership of the final distribution company is shared among the distributor, the municipality and third parties, and this number decreases to 14 in the case of networks and just 7 in the case of stations.

Table 4.11 Ownership of the assets operated by natural gas distributors

DISTRIBUTORS	NETWORK	STATIONS	FINAL GATE STATIONS
Do not own the infrastructures they operate	89	107	91
Own less than 50% of the infrastructures they operate	34	13	28
Own more than 50% of the infrastructures they operate	54	43	50
Own 100% of the infrastructures they operate	97	107	98
No reply	22	26	28
TOTAL	296	296	296

Source: AEEG calculations on data provided by the operators.

As for legal form, 45.7% of the gas distribution companies are public companies, while 46.4% are limited responsibility companies. The remaining 9% of distributors have various legal forms: 1.3% are operated by municipalities with responsibility for managing the public service. In contrast, before the liberalisation, almost 40% of the gas distribution companies were municipal-owned.

Table 4.12 Corporate formation of the distributors

LEGAL FORM OF THE SHAREHOLDERS	%
Public authorities	43.2
Other companies	20.1
Local energy companies	13.3
Individuals	12.9
National energy companies	8.2
Foreign energy companies	1.3
National financial institutions	0.6
Floating capital	0.3
Other	0.5
Foreign financial institutions	0.0
TOTAL	**100**

Source: AEEG calculations on data provided by the operators.

Table 4.12 shows a first breakdown of the corporate formation of the distribution companies at 31 December 2007, limited to direct equity investments, as reported in the annual survey. First, it is worth noting that only three companies are listed on the stock exchange: Acel, Hera, and Ascopiave. The shares of these companies on the stock exchange accounts for only 0.3% of the total share capital of distribution companies. In contrast, public authorities own 43% of the total share capital, while energy companies own 23%: local energy companies own 13.3%, national companies 8.2%, and foreign companies 1.3% (based on Spain, Austria, and France). Finally, individuals own 13% of total share capital.

In accordance with the gas industry liberalisation law, since 2001 the Italian regulator authority has imposed rules on the accounting and administrative unbundling of companies operating in the gas sector. These provisions have been in effect since 1 July 2003. In accordance with the provisions set in 2001, transport and distribution companies draft their balance sheets and income statements by operation, as well as separate annual statements that are broken down even further and reserved exclusively for the Authority's use. These statements are drafted according to the guidelines set by the Authority which has exactly defined the segments into which each operation is broken down, the criteria for allocating common costs and revenues, financial revenues, and direct taxes. Finally, the Authority has prescribed that the separate accounts show transactions between legal entities belonging to the same group and that separate consolidation financial statements must be drafted for each entity. If an affected entity does not comply with this regulatory provisions, the Authority may impose fines. The separate annual accounts, both those published and those reserved for the Authority, are subject to audit and certification by a qualified independent auditor that certifies their compliance with civil and commercial law and with the regulatory provisions.

In January 2007, the Authority updated its unbundling regulations with Resolution no. 11/07 that, along with several simplifications in the accounting rules previously in effect, introduced new rules on functional separation, implementing European Directives 2003/54/EC and 2003/55/EC. In detail, the new regulations require distribution companies with more than 100,000 customers to separate these operations from any other

that may have in the supply chain (e.g. measurement). Unless they are very small (serving less than 5,000 customers), even distributors with less than 100,000 customers are subject to separate accounting rules.

However, Resolution no. 11/07 triggered litigation that is still pending. Nonetheless, the first degree Court ruling confirmed the appropriateness of the alternative criteria for functional separation, introduced last with Resolution no. 253 of 4 October 2007 that allows for an exemption from functional separation of the entire board of the directors where there is an executive committee or similar that is functionally separate and this committee's decisions are binding for all operational and organizational decisions pertaining to the service administered.

Table 4.13 Summary information on gas unbundling

	Transmission	Distribution
Separate headquarters (Y/N)	Y	N
Separate corporate presentation (Y/N)	Y	N
Unbundling of accounting statements and guidelines (Y/N)	Y	Y
Audit of unbundled accounting statements (Y/N)	Y	Y
Publication of unbundled accounting statements (Y/N)	N	N
Separate boards of directors (there are members that are also on affiliated companies' boards) (Y/N)	Y	N

Source: AEEG.

4.2 Competition issues

4.2.1 Description of the wholesale market

According to provisional data issued by the Ministry of Economic Development, the consumption of natural gas[15] between 2006 and 2007 rose by just 0.5%, from 84.5 to 84.9 G(m^3), also owing to relatively mild weather conditions. National production, as has been the case for several years, continued to fall, dipping just under the threshold of 10 G(m^3), down by 11.7% compared to 2006; this market segment is dominated by Eni which (with over 80%) is far ahead of its competitors.

Despite the reduction in the quantities of gas imported compared to 2006, Italy's dependence on abroad remains very high. According to provisional data published by the Ministry of Economic Development, in 2007 73.9 G(m^3) were imported, 4.1% less than in 2006, and covered 87% of consumption.

Import capacity rose compared to the previous year by approximately 4.5 G(m^3), as did the capacity for long-term import contracts with almost all the interconnection points with abroad (owing to the extension to 2035 of supplies from Russia obtained by Eni and the

[15] On average the calorific value of natural gas in Italy is 38.1 MJ/m^3.

increase in quantities from North Africa following the end of the build-up stage for the Libyan natural gas pipeline).

As in the previous year the groups[16] which have a share higher than 5% of the overall gas supplied (i.e. produced or imported) are Eni, Enel and Edison which together cover 86% of the total; the other operators hold shares of imported and/or produced gas between 3.5% and 5%. The same three groups also hold more than 5% of the available gas, with a similar share (86.7%) to that of gas supplied.

Table 4.14 Development of the wholesale market

	Total Demand(A) G(m³)	Peak demand(B) M(m³)/day	Production G(m³)	Import capacity G(m³)/year				No. of companies with a share of production and import capacity >5%	No. of companies with a share of available gas >5%	Share of the three main wholesale companies
				Total	Priority access for transit(C)	Priority access for contracts LT	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	90.9	0.5	73.5	16.9	3	3	66.7%
2006	134.3	443	11.0	94.1	0.5	74.5	19.1	3	3	66.5%
2007	136.1	429	9.7	98.6	0.5	86.1	12.0	3	3	63.8%

(A) Volumes of gas sold on the domestic wholesale and retail market; includes resales.

(B) Peak injection on: 26/01/2004, 19/12/2005, 25/01/2006, 18/12/2007; the volume indicated includes injections, distribution from storage, grid losses and internal consumption.

(C) In Italy there is no differentiated treatment for transits which are regarded as normal transport; the value given in the table refers to a transit contract which has obtained priority access since it is part of a long-term contract.

Source: AEEG calculations on Snam Rete Gas data and data provided by the operators.

The main sources of imports via gas pipeline, both of which are outside the EU, are Russia and Algeria.

In 2007 Algeria was responsible for the highest share of imported gas volumes, with 33.2% of total imported gas. The gas arrives from this country mainly by gas pipeline, at the entry point of the national grid at Mazara del Vallo (22,153 out of the 24,584 M(m³) which arrived from Algeria came into the country this way), and to a lesser extent by sea at the re-gassification plant of Panigaglia. Imports from Russia (30.7%) follow, which reach Italy via natural gas pipeline through the entry points of the national grid at Tarvisio and Gorizia. Libya has become the third most important country of origin for gas imports into

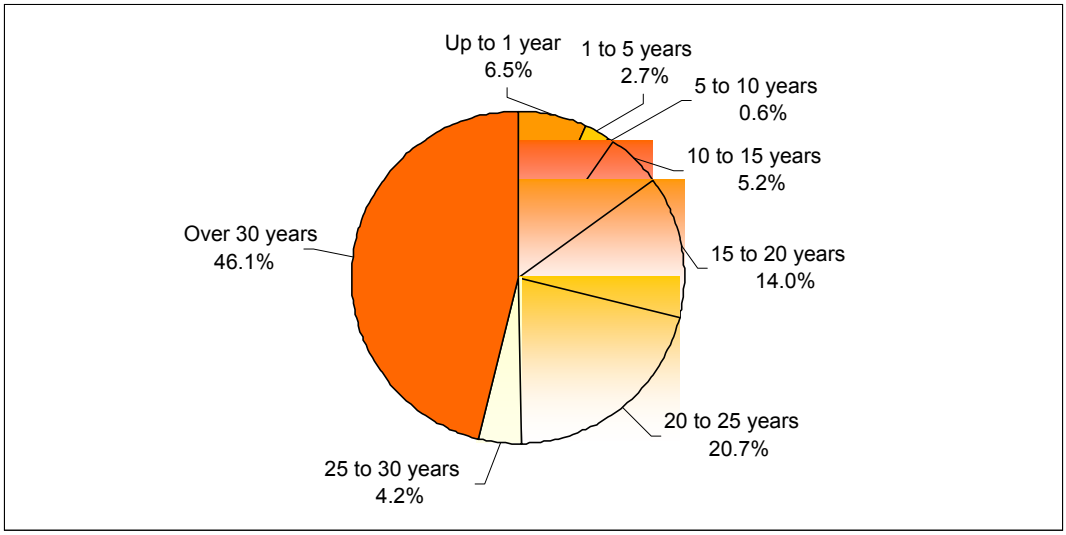
[16] As part of the gas market survey, participation in a corporate group is defined on the basis of the provisions of art. 7 of Law no. 287 of 10 October 1990: in short, if there is effective control by a shareholder company in a company this establishes the existence of a group.

Italy; in 2007 its share reached 12.5%, for the first time exceeding the shares of the Netherlands and Norway.
Imports from North European countries, which in total represent 18.4%, (10,9% from Netherlands and 7,5% from Norway)come into Italy through the entry point of Passo Gries (at the Swiss border). The remaining 5.2% of imported gas comes from other countries.
At the re-gassification terminal at Panigaglia, in Liguria, in 2007 approximately 3.2% of imported volumes were re-gassified and injected into the grid.

Procurement is largely undertaken through long term take-or-pay contracts. The calculations on the basis of the data provided by the operators to the Authority still show Italy's dependence on agreements of more than 10 years. For the volumes contracted for 2007 by total duration (figure 4.1), contracts of over 30 years accounted for 46.1% of the total, followed by contracts with a duration between 20 and 25 years (20.7%) and those between 15 and 20 years (14%).

Contracts of one year or less represented 6.5% of the total volumes contracted overall.

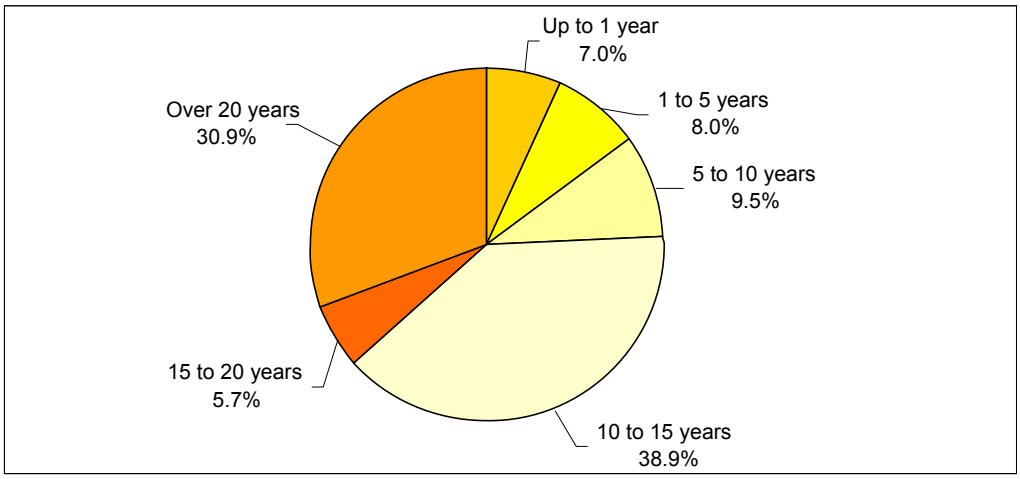
Figure 4.1 Active import contracts in 2005 by total duration



Source: AEEG calculations on data provided by the operators.

According to an analysis of the same contracts by the residual duration in 2007 (figure 4.2), the active contracts are still very long: slightly over 75% will expire within 10 years or more (and of those 31% have a residual duration of at least 20 years). Just over 24% of existing contracts will expire within a maximum of 10 years.

Figure 4.2 Active import contracts in 2005 by residual duration



Source: AEEG calculations on data provided by the operators.

In 2007, 13 authorisations for long term imports were granted and 30 for spot imports of no more than one year. Four more were added in the first few months of 2008. In 2007 the Ministry of Economic Development received 38 inter-EU import notices and 6 more in the first few months of 2008.

The number of authorisations, however, does not reflect of the effective number of import operators, but only the completion of the administrative formalities for import activity, established by the provisions of Legislative Decree no. 164/00; gas import is unrestricted for gas produced in European Union countries, but is subject to ministerial authorisation for non-EU imports.

In 2007 total demand in the gas sector, in terms of gas volumes sold on the wholesale and retail market (including, therefore, resales), reached 136.1 G(m^3), recording modest growth of 1.3% on 2006 (table 4.14). The operators who have a market share over 5% are once again the Eni, Enel and Edison groups. The three groups overall covered 63.8% of total demand (the previous year it was 66.5%) with shares respectively of 42.1%, 12.5% and 9.2%, much higher than those of their competitors that started from 2.6%.

Table 4.15 Gas market

G(m^3)

	Total consumption(1)	Organised spot market trading	Forward hub market trading	OTC bilateral trading(2)
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
2007	84.9	not applicable	not applicable	12.1

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

(2) Volumes of gas acquired at the VTP or at the entry points. More specifically, it is gas acquired on the secondary market; the remainder of the gas is acquired on the primary market (i.e. it comes directly from national production, imports or storages)

Source: AEEG calculations on data provided by the operators.

From the purchases made on the secondary market (Table 4.15), it is clear that it is increasing rapidly. In 2007 transactions on the VTP (Virtual Trade Point) reached 9.7 G(m^3); compared to the prior year, they more than doubled and reached almost a fifth of the overall volumes sold by operators in Italy[17]. Of these around 1 G(m^3) were acquired from Eni group which sold them as gas release transactions, as a result of the rulings by the Antitrust Authority. As from 2004, but especially in the last two thermal years, the VTP has markedly increased its importance, both in terms of volumes traded, and in terms of the number of contracts. This has been facilitated by the provisions of the Authority, provisions which, since November 2006, have allowed traders to undertake transactions at the national hub, without at the same time being users of the transport system. The average size of traded quantity has however remained relatively insignificant.

4.2.2 Description of the retail market

On 10 May 2007 the companies authorised by the Ministry of Economic Development to sell to the retail market were 399; however, it is well-known that some of the companies which apply for Ministerial authorisation to sell then remain inactive. Most of these are the result unbundling the sales divisions from the former integrated distribution companies, but the process of restructuring of natural gas retail is still on-going. Wholesale companies are not required to apply for sales authorisation from the Ministry of Economic Development, pursuant to art. 17 of Legislative Decree no. 164/00.

Operators in the sales sector authorised by the Ministry and which responded to the gas market survey carried out by the Authority in 2007, were 312, of which 232 were suppliers to the retail market, 73 "wholesalers" which sell gas both to other operators and directly to the retail market, and 17 "pure wholesalers" which only sell gas to other resellers.

Gas suppliers which are independent from distribution, in the sense that they are not connected in corporate terms to companies which carry out distribution, were 178 out of a total of 333 respondents, or 53.5%. Gas suppliers which are independent from transport are 316 out of a total of 333 respondents, or 95%.

Table 4.16 shows the main data relating to the retail market and shows that 2007 was another year of relative stability for the natural gas sector. According to the preliminary data issued by the Ministry of Economic Development, consumption grew by just 0.5%, rising from 84.5 G(m^3) in 2006 to 84.9 G(m^3) in 2007.

The level of overall market concentration remained unchanged on the prior year: also in 2007 only three companies had a share higher than 5%, and together held 66.5% of the total market (i.e. including self-consumption). The internal breakdown of the shares in 2007 saw, in comparison to 2006, a fall by Eni (from 42.7% to 44.1%in 2006) to the benefit of Enel (from 13.2% to 13.8%) and especially Edison (from 9.2% to 10.1%).

The concentration levels by individual market fell: in 2007 the leading three operators in each market covered:

[17] Of the 12.1 G(m^3) volumes traded overall at the VTP as indicated in the table, 2.4 are gas re-deliveries by the operator of the Panigaglia re-gassification terminal of GNL Italia to users of the terminal which, although they are recorded as transactions on the VTP, are not due to trades among operators on the secondary market.

- 84.7% of sales for electricity generation (in order: Eni, Enel and Edison);
- 67.0% of sales to industrial customers (in order: Eni, Enel and Energie Investimenti);
- 47.1% of sales to customers for trade and services (in order: Eni, Hera and Enel);
- 44.6% of sales to families (in order: Eni, Enel and Hera).

Table 4.16 Development of the retail market

	Total consumption (G(m³))	No. of companies with share >5% in the retail market	No. of independent companies (A)	Market shares of the main three companies (%)				Accumulated % of customers who have changed supplier (by volume)			
				Thermo-electric uses	Large industrial companies (B)	Small-medium industrial and commercial companies (C)	Very small companies and domestic sector (D)	Thermo-electric uses	Large industrial companies (B)	Small-medium sized industrial and commercial companies (C)	Very small companies and domestic sector (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)

(A) Completely independent from distribution
(B) Industrial companies
(C) Commercial and service companies
(D) Domestic customers
(E) Standard consumer with annual consumption > 200,000 m^3/year.
(F) Standard consumer with annual consumption 5,000-200,000 m^3/year.
(G) Standard consumer with annual consumption < 5,000 m^3/year.

Source: AEEG calculations on data provided by the operators.

As in 2006, the Annual survey on the natural gas sector carried out by the Authority set out the self-consumption by operators, i.e. the quantities of gas produced, imported and/or bought in Italy and directly consumed by them in the year from 1 January – 31 December 2007, by consumption sector. The analysis of the market and its level of concentration is surprising if these data are taken into account. In fact, excluding self-consumption by the market, overall gas sales were 69.1 G(m³). There are only 2 groups which have more than 5% of sales: Eni, with a share of 44%, and Enel with a share of 16.4%. The third group which consumes a significant amount of gas in its electricity generating plants is Edison, but with a share of only 3.1%. Even if self-consumption is not taken into account, the concentration levels (and the order of the groups) do not change significantly by type of customer.

Foreign penetration in the Italian retail market does not seem significant. There are 20 companies operating in the retail market with at least one foreign shareholder (with a share of at least 30%) which responded to the Authority's survey. Together they cover 10.5% of the total market (including self-consumption) and 2.8% of sales alone. The leading companies with foreign shareholders which sell for electricity generation are

Edison, Elektrizitats-Gesellschaft Laufenburg and Shell Italia E&P (together they cover 21.9% of that market); the leading three which sell to industrial customers are Energetic Source, Econgas Italia and Begas Energy International (with an overall share of 0.4%); the leading three companies which sell to commercial and service companies are Gas Natural Vendita Italia, Selgas and Multiutility (with an overall share of 1.4%); finally, the leading three companies with at least one foreign shareholder which sell to domestic customers are Gas Natural Vendita Italia, Broni Stradella Gas and Selgas (with an overall share of 1.2%).

As for the level of integration between the procurement segment and sales to the retail market, there are 20 companies which operate in both segments of the sector. The top three companies are Eni, Enel and Edison; together they hold 86% of produced or imported gas and 63.5% of gas sold to consumers (net of self-consumption).

Switching

The survey carried out with sales operators on switching showed that in the period July 2007 – June 2008 the percentage of customers who changed supplier in the gas market was 0.8%. Table 4.17 shows the breakdown of this figure, distinguishing customers by their level of consumption.

Table 4.17 Switching rates of end users in the period July 2007 – June 2008

Customers by annual consumption class	Switching rate (withdrawal points)	Switching rates (volumes)
< 5,000 m³	0.7%	1.0%
5,000 – 200,000 m³	4.2%	4.7%
> 200,000 m³	5.4%	n.a.
Total	**0.8%**	**n.a.**

Source: AEEG calculations on data provided by the operators.

Average sales prices

Since the complete opening of the market the price of gas in Italy is no longer regulated. However, since the liberalisation took place in a situation of low effective competition, it was deemed appropriate to maintain a regime to protect the more ……. customers (specifically families and small non-domestic customers), which is gradually being cut back over time. Since October 2006 suppliers have been obliged to offer the economic supply conditions established by the Authority only to domestic customers with consumption under 200,000 m³. Other offers made by individual suppliers can of course also be added to the conditions established by the Authority. Therefore, analyses of average prices of the gas market in Italy shall distinguish protected customers, who accept the economic supply conditions calculated by the Authority, from free customers who pay a price which is freely negotiated with suppliers.

In 2007 the average price of gas (weighted with the quantities sold) net of taxes, applied by suppliers or by wholesalers who operate on the retail market, was 32.28 c€/m³. Customers

on the protected market on average paid 43.15 c€/m³ for gas, while 28.13 c€/m³ was the average price paid by free market customers. These results emerge from the initial, provisional calculations on the data provided by the operators recorded as part of the Annual survey on the electricity and gas markets which, for the first time this year, increased the number of classes into which customers are divided in terms of consumption. The previous top class which indicated customers with annual consumption "over 200,000 m³", was in fact replaced with three new classes: that of customers with annual consumption "from 200,000 to 2,000,000 m³", that of customers with annual consumption "from 2,000,000 to 20,000,000 m³" and, finally, that of customers with consumption "over 20,000,000 m³". The aim was to analyse more precisely the volumes and the prices paid by major energy users.
As can be seen from table 4.18, the addition of new classes confirms the expectations on trends and size: customers on the protected market pay significantly more than those on the free market with similar consumption profiles; as the size of customers grows in terms of volumes consumed annually, the price tends to fall, more markedly in the case of free customers.

Table 4.18 Average sales prices net of taxes on the retail market (c€/m³)

TYPE OF CONTRACT AND CUSTOMER	2004	2005	2006	2007	% CHANGE 2007/2006
PROTECTED MARKET	**33.65**	**35.36**	**41.57**	**43.15**	**3.8**
Consumption under 5,000 m³	35.32	37.01	43.32	44.59	2.9
Consumption between 5,000 and 200,000 m³	30.44	32.12	37.94	39.16	3.2
Consumption between 200,000 and 2,000,000 m³	27.04(A)	29.39(A)	32.64(A)	33.75	–
Consumption between 2,000,000 and 20,000,000 m³	27.04(A)	29.39(A)	32.64(A)	33.28	–
Consumption over 20,000,000 m³	27.04(A)	29.39(A)	32.64(A)	–	–
FREE MARKET	**18.76**	**23.23**	**28.53**	**28.13**	**–1.4**
Consumption under 5,000 m³	32.99	31.95	41.99	40.96	–2.4
Consumption between 5,000 and 200,000 m³	27.24	29.76	35.53	37.10	4.4
Consumption between 200,000 and 2,000,000 m³	18.46 (A)	23.00 (A)	28.07 (A)	30.86	–
Consumption between 2,000,000 and 20,000,000 m³	18.46(A)	23.00(A)	28.07(A)	27.85	–
Consumption over 20,000,000 m³	18.46 (A)	23.00 (A)	28.07 (A)	26.39	–
TOTAL	**23.13**	**26.89**	**32.61**	**32.28**	**–**

(A) Until 2006 the price was recorded by class of customers with consumption over 200,000 m³. The data cannot therefore be compared with the value for 2007.

Source: AEEG calculations on data provided by the operators.

The smallest customers pay on average 44.59 c€/m³, compared to 39.16 and 33.75 c€/m³ for average customers and 33.28 c€/m³ for major customers; the price difference between small and major customers is therefore significant, at 11.31 c€/m³. A substantial part of this difference is due to distribution cost, since customers with low consumption are normally served by distribution networks, while larger customers are often directly connected to the national grid. This consideration is also valid for small customers on the free market.

The longer class of customers is obviously not represented on the protected market. In this regard, it is important to stress that the presence of volumes and prices in the protected classes of consumption over 200,000 m³ is due to the fact that these classes include the consumption and prices of those customers who, although holding the right to change supplier, have still not made this decision and therefore remain within the scope of pre-existing contractual conditions, at prices protected by the Authority.
In the free market customer size tends to have a greater impact on the offer price: smaller customers pay almost 15 c€/m³ more than large customers, who obtain gas at an average price of 26.39 c€/m³.
A comparison with the 2006 data shows changes in the cost of gas rather differentiated by type of market and consumption classes: customers on the protected market have incurred increases of 3.8% on average. On the contrary, customers on the free market have seen the price of gas fall by 1.4% on average, with the exception of those in the 5,000-200,000 m³ range who, on the other hand, seem to have experienced the same rise as protected customers, with a price increase of 4.4%. It can also be seen that, in absolute terms, the increase in average prices from 2004 to 2007 was practically the same for the two markets.

The average prevailing price levels by type of consumer recorded by Eurostat are shown in table 4.19 and are broadly in line with the average values described above.

Table 4.19 Breakdown of final price components by Eurostat standard consumers

€/m³ ; 2007

	I4(A)	I1(B)	D3©
Annual consumption	**418,600 GJ or 10,986,877 m³**	**418.6 GJ or 10,987 m³**	**83.7 GJ or 2,197 m³**
Network tariffs (excluding general charges)	0.0177(D)	0.0280+ 0,0832 (D)	0.0305+ 0,1106D)
General charges included in network tariffs	-	-	-
Raw material costs and sales margin	0,2607E)	0,3060E)	0,3248E)
Total net of taxes	**0.2784**	**0.3892**	**0.4354**
Taxes	0.0359	0.2052	0.2448
Total (including taxes)	**0.3143**	**0.5944**	**0.6802**

Recorded by the following standard consumers:
(A) Customer with annual consumption between 2,000,001 and 20,000,000 (m³/year)
(B) Customer with annual consumption between 5,001 and 200,000 (m³/year)
(C) Domestic customer with consumption between 500 and 5,000 (m³/year)
(D) See table 4.5.
(E) Includes the cost of storage.

The largest industrial customer, I4, with annual consumption of around 11 M(m³), pays 31.43 c€/m³ for gas net of taxes, a value which falls in the range (indicated in table 4.18) between 33.28 c€/m³ for the protected customer and 27.85 c€/m³ for the customer who has acquired gas on the free market for the 2-20 M(m³) consumption range. Similarly the price for industrial customers with reduced consumption, I1, of 38.92 c€/m³, is an intermediate value between those indicated in table 4.18 for customers with consumption between 5,000 and 200,000 m³, respectively 39.16 and 37.10 c€/m³ for the protected and free markets.

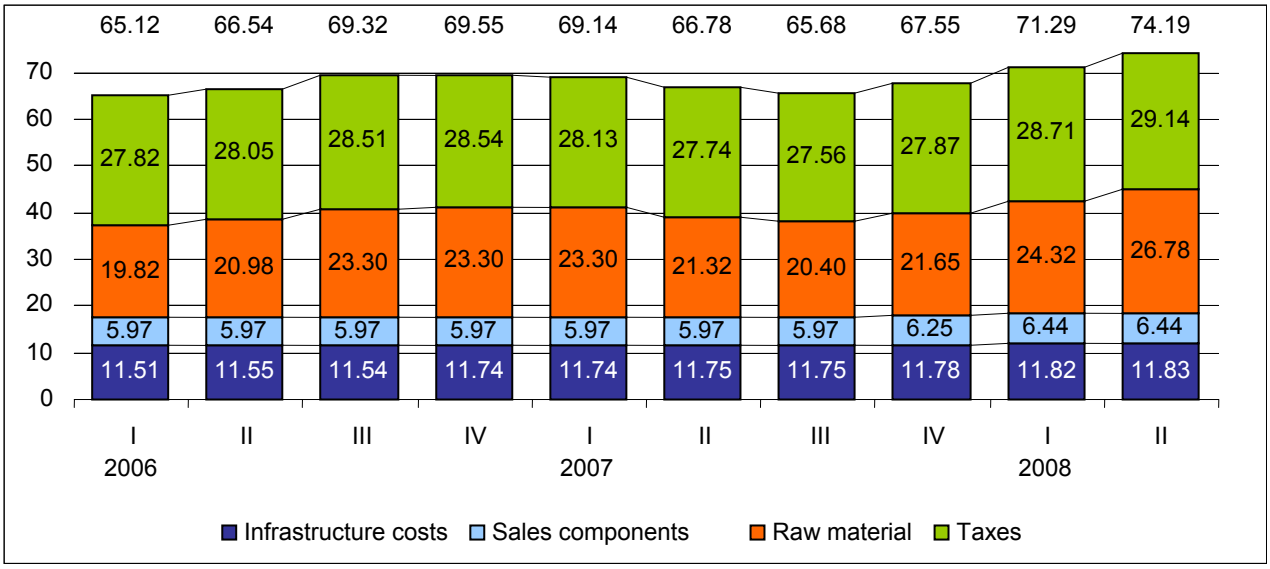
Finally, also for domestic customers, D3, the price net of taxes is 43.54 c€/m³, between the values of 44.59 and 40.96 c€/m³ recorded in the survey on the market.

Economic reference conditions

The trend in economic supply conditions published by the Authority in reference to consumers who use less than 200,000 m³/year is shown in figure 4.3. This is the national average value for the economic supply conditions, defined by Resolution no. 138/03, which sales companies have been obliged to offer since 1 January 2004, together with any other specific conditions (identified by each supplier), to domestic customers and small consumers in the commercial and crafts sectors (i.e. the customers from the old captive market). As mentioned in the previous paragraph, since 1 October 2006 the obligation for suppliers to offer also regulated supply conditions has applied only for domestic customers who consume less than 200,000 m³/year.

Figure 4.3 Trend in the average national reference tariff published by the Authority in reference to small customers using less than 200,000 m³/year

c€/m³, value by standard m³ at 38.52 GJ



In 2007 the average reference tariff of 67.29 c€/m³ was 0.5% lower than the price component linked to the value recorded in 2006, (at 67.63 c€/m³).

The increase in international oil prices continued to drive up the purchase cost of the raw material price component (the so-called QE component) from the third quarter of 2005 up to the end of the third quarter of 2006. After two quarters, the last in 2006 and the first in 2007, in which it remained unchanged, the QE then recorded two significant falls, respectively of 8.5% and 4.3% in the second and third quarters compared to the prior year. 2007 then ended with an increase of 6.2%.

At the start of 2006 the increases in the QE were offset by the fall in the component covering the sales costs (in its turn due to a fall in the cost of wholesale marketing), partially offset by an increase in infrastructure costs (which rose owing to an increase in the transport cost). In the second and fourth quarter of the same year, on the other hand,

the increases in the raw material accompanied a rise also in the component covering infrastructure costs (owing to an increase in the storage cost in April and an increase in the transport cost in October). Also in the last quarter of 2007 the increase in the raw material component was associated with an increase of 1.7% in the components covering recognised transport costs and retail sale. Finally, the multiplying effect which taxes, in part calculated as a percentage, add to the overall price must be added to the increase in the components indicated.

2008 opened with a new and significant increase of 5.5%, due both to the raw material and the revision of transport and retail marketing costs. Also in April the continuing exceptional growth in international prices of hydrocarbons recorded as from the summer of 2007, caused a further increase in the cost of the raw material, to which was added a slight increase in the component covering storage costs. Overall, the average national value of the economic reference conditions for domestic customers who consume less than 200,000 m^3/year rose in the second quarter by 4.1%.

At 1 April 2008 the average national reference tariff consisted of approximately 61% for the component covering costs and the remaining 39% of taxes which are charged on the natural gas sector (excise duty, regional surcharge and VAT).

The cost of the raw material is responsible for over a third of the overall price (36.1%), marketing costs for 8.7% and those for the use and maintenance of infrastructure for the remaining 15.9%. As part of the costs for infrastructure, the most important component is that needed to cover distribution: the Cd component accounts for 10% of the overall value; the impact of the component covering transport costs is 4.6%, while the impact of the storage component is 1.3%.

Consumer satisfaction and complaint handling

The assessment of complaints, reports and notifications from both individual customers and consumers' associations was significant during 2007. In the period between 1 April 2007 and 31 March 2008 the number of communications regarding the gas sector was 36% of the total. In particular, of the overall total of 4,306 communications sent to the Authority (Table 4.20), 1,530 concerned the gas sector, an increase of 63% compared to the previous year; of these 94% were complaints, 3% information requests and the remaining 3% notifications.

Despite the fact that the number of communications regarding the gas sector does not represent the majority of the communications assessed by the Authority, the complete liberalisation of demand, nonetheless, increased consumers' awareness and their perception of possible service problems which may occur in this sector: this was also in light of difficulties encountered in trying to change supplier.

Table 4.20 Communications relating to the gas sector received by the Authority

April 2007 – March 2008

COMMUNICATIONS	GAS SECTOR	TOTAL
Complaints	1443	4024
Information requests	43	146
Notifications	44	136
TOTAL COMMUNICATIONS	1530	4306

Specifically, the most frequent problems (Table 4.20) concerned contracts, commercial and supply quality (20.3%), billing (30.4%), hook-ups (22.9%), the market and competition (12.5%). The statistics do not include complaints regarding particular tariff questions, complaints about the application of VAT at 20% for supplies for heating and complaints sent repeatedly by the same customer. Finally, numerous information requests were made and answered by phone or by email. The data relating to answers given by phone and email are not, however, considered for statistical purposes.

Table 4.20 Issues addressed in communications to the Authority

ISSUE ADDRESSED IN COMMUNICATION	APRIL 2006 – MARCH 2007		APRIL 2007 – MARCH 2008	
	NUMBER	%	NUMBER	%
Contracts and commercial/supply quality	33	4.9	311	20.3
Billing	48	26.5	465	30.4
Hook-ups	161	17.2	351	22.9
Bills	16	1.71	24	1.6
Tariffs	20	2.1	23	1.5
Measurement	12	1.3	14	0.9
Market and competition	145	15.5	191	12.5
Meters	21	2.2	66	4.3
Disconnections	32	3.4	38	2.5
Other	48	5.2	47	3.1
TOTAL	936	100.0	1.530	100.0

The number of communications regarding bills, tariffs, measurement and disconnections was relatively stable between 2006and 2007. However, there has been some increase in communications relating to hook-ups and meters. The first aspect derives from the fact that, also in the period 2007-2008, contingent problems re-emerged relating to hook-ups and the related application of Resolution no. 40 of 18 March 2004 (and subsequent modifications and additions) regarding the activation of gas supplies, while the second aspect may also be connected to press reporting regarding problems in the functioning of so-called "membrane" gas meters. A marked increase was recorded for the issue of contracts and billing; the latter aspect concerned in particular consumption adjustment charges (which are caused by inadequate estimates in light of various harsh winters and consecutive failures to read meters over time), as well as double billing and billing errors.

Finally, it is noted that communications with the lowest frequency represent 3.1% of the total of those concerning the sector and are grouped under "Other"; these consist, among other things, of communications mainly regarding problems related to security, the execution of works needed for gas supplies and taxes. As part of the service of gas

distribution and sale, it must also be noted that there were continuing communications related to the complicated issue of the exercise of the right to terminate.

4.2.3 Measures against abuse of dominant position

Regarding the provisions on the protection and development of competition in the gas market, Legislative Decree no. 164/00 established that as from 1 January 2003 and up to 31 December 2010:

- no gas company, directly or through subsidiaries, parent companies or companies controlled by the same parent company, may can sell to end users more than 50% of national natural gas consumption on an annual basis;
- no gas company can inject gas (imported or produced in Italy) into the national grid, for sale into Italy, directly or through subsidiaries, parent companies or companies controlled by the same parent company, for quantities over 70%[18] of national natural gas consumption on an annual basis.

In practice, up to 2010, Eni which is the main national importer must respect antitrust limits and must therefore reduce its injections (from national production and imports) by 2% every year in relation to total injections into the system.

These provisions are now close to expiration. In addition they have proved easy to side-step: as by using the so-called "innovative sales" Eni has been able to avoid the caps. The incumbent has continued to be the main importer and has simply limited itself to sell gas just before the national borders, to selected competitors imposing on them a significantly higher price than its own purchase cost.

Further action relating to the dominant operator undertaken in recent years involved the two gas release transactions. These are gas sales which Eni has made following investigations by the Antitrust Authority (AGCM) which proved the company's abuse of its dominant position. In particular, a first gas release at the border was decided following ruling A329B (Blugas-Snam) of 18 March 2004 with a duration of four thermal years, up to September 2008, while, following ruling A371 (Management and use of re-gassification capacity) of 19 April 2006, Eni is undertaking a new tranche of sales to be made solely at the Virtual Trading Point (VTP) for two thermal years as from October 2007.

More in detail, the arrangements for the first gas release transaction decided by Eni in 2004 and agreed with the AGCM volumes and access rules were defined. Regarding volumes, it was established that the quantity of gas to be sold was 2.3 G(m^3) per year, for a period of four years; in September 2008, at the end of this transaction, Eni shall have therefore sold 9.2 G(m^3) overall. Regarding access rules, it was established that the gas to be sold, was divided into lots ….., at the entry point of the national grid at Tarvisio (i.e. at the Italy/Austria border). Buyers can acquire more than one batch, up to a particular maximum number, through a tendering procedure. The price has been set by Eni on the basis of a simple formula based on a slightly modified version of the component covering the purchase costs of the raw material QE (described in detail in the previous paragraph):

[18] The percentages indicated of 50% and 70% are to be calculated net of losses and self-consumption.

$P = QE^* + 1.825$ (c€/m³)

The price offered, therefore, includes the cost of the raw material, the international transport costs up to Tarvisio and the strategic storage costs incurred by Eni as the importer of non-EU gas; on the other hand, it does not include costs relating to entry to Tarvisio (which are charged to the buyer of the gas sold by Eni).

The arrangements for the second gas release transaction in 2006, proposed by Eni and agreed with the AGCM, set at 2 G(m³)/year the quantities of gas to be sold, to be released over two years, for a total of 4 G(m³), divided into 50 lots of 40 M(m³)/year each. These quantities, which are assigned on a pro quota basis, have been sold at the VTP as from 1 October 2007.

As in the first gas release, the price of the gas sold is based on a formula which is updated on the basis of international prices of a basket of fuels. It is, however, lower than in the previous gas release, since the sale occurs at the VTP rather than at the border (and therefore the price already includes the costs relating to entry and the commodity components) and in the indexing system linking there is a coefficient of 0.95, which tends to mitigate the effects of international prices.

5 SECURITY OF SUPPLY

5.1 Electricity

Peak demand in 2007 and forecasts for 2008 - 2013

In 2007 both winter and summer peak demand set new records. The winter peak power demand occurred on 18 December and was 56,822 MW. The summer peak demand was recorded on 20 July and was 56,589 MW. The growth in the summer peak compared to the previous year was lower than that for the winter peak (1.7% compared to 2.3%), going against the trend in previous years which indicated a gradual move towards a summer peak.

In this regard, it should be said that the trend to a summer peak is is coherent with the trends recorded over the last two decades; however, long term forecasting is hardly reliable because of temperature changes and unforeseen daily variations.. TERNA's forecasts for subsequent years, shown in table 5.1, indicate a growing difference in favour of the summer peak which should reach around 1.0 GW in 2010 and 1.8 GW in 2013.

Table 5.1 Peak power demand 2006 – 13

GW

	2006	2007	2008	2009	2010	2011	2012	2013
Normal winter	55.5	56.8	58.2	59.6	61.0	62.4	63.9	65.4
Very hot summer	55.6	56.6	58.7	60.3	62.0	63.7	65.4	67.2

Source: TERNA.

Generation capacity in 2007

Table 5.2 Net efficient generation capacity in 2003 – 2007

MW

	2003	2004	2005	2006	2007
Hydroelectric	20,660	20,744	20,993	21,072	21,095
Thermoelectric(A)	56,047	58,990	62,164	65,797	69,100
Geothermic	665	642	671	671	671
Wind	877	1,135	1,642	1,902	2,640
Photovoltaic	7	7	7	7	87
Total	78,256	81,518	85,477	89,449	93,593

(A) Includes biomass and waste plants.

Source: TERNA.

In 2007 the significant expansion of generation capacity which started in 2004 – 05 continued. According to TERNA data, the installed net power at the end of 2007 was 93.6 GW brake-down by fuel is describe din Table 5.2.. The increase was slightly higher in 2007 compared to 2006 (4.1 compared to 4.0 GW) and increases the now significant power

reserve to meet peaks in demand. Around 80% of the growth between 2004 and 2007 is attributable to thermoelectric plants, mainly combined cycle gas plants, but there was also a marked contribution from wind plants with 18% of the growth in the same period.

New generation capacity for 2008 – 2010

The restructuring and Re-powering of the Italian generation parkis still ongoing and mainly focussed on the construction of combined cycle gas plants and, increasingly, windpower. As indicated in table 5.3 there will certainly be 2.8 GW of thermoelectric plants starting operations in 2008. Of the 3.2 GW currently under construction, we may consider approximately 1.8 GW as reasonably certain to start operations in 2009. Authorisation has also been received for the construction of a further 4.4 GW of thermoelectric power which should start operations in 2010 and in subsequent years.

Table 5.3 Increases of generation capacity in 2008 – 12

MW

	Thermoelectric(A)	Wind	Total
By year of starting operations			
2008	2,750	416	3,166
2009	1,816	441	2,257
2010 and later	5,759	3,973	9,732
By progress in 2008			
In operation	2,750	416	3,166
Under construction	3,150	429	3,579
Authorised	4,425	3,985	8,410
By geographical area			
North	3,430	5	3,435
Centre	1,550	51	1,601
South and islands	5,345	4,774	10,119
Total	**10,325**	**4,830**	**15,155**

(A) Includes also biomass and waste plants which can be estimated overall at around 300 MW.

Source: TERNA, *Development plan for the domestic transmission electricity grid 2008*, January 2008.

The development of generating plants using renewable sources, above all windpower has showna great dynamism in the year. Considering only the plants for which commitments have been taken by companies to cover connection charges to the transmission and distribution grids, it may be estimated that around 850 MW will start operations between 2008 and 2009. The situation is less clear for the following years, but it may be estimated that around 4.0 GW will start operations in 2010 – 2012. The potential, however, is very significant since requests to connect to the national grid total around 40 GW[19]. The data

[19] The requests increased above all in 2006 – 07 following the publication of Resolution no. 281/05 of the Authority. In cumulative terms it was 16 GW in 2005, 23 GW in 2006 and 44 GW in 2007.

shown do not include the new photovoltaic power capacity, which may be estimated overall at around 3 GW, which should be installed by 2015[20].

Two thirds of the new electric power which is planned to start operations over the next five years is located in the South: 51% of the thermoelectric capacity and almost all the new wind capacity. The geographical distribution of new capacity, on the one hand, should contribute to offsetting congestion in some Southern areas of the country, but on the other, might in the short/medium term worsen the situation of the transmission to the North – Centre North area . This should be largely offset by the realisation of the grid enhancements planned by TERNA.

Peak power availability

In the last five years plant availability remained overall between 64% and 66% of net total power[21]. The unavailability of hydroelectric plant is mainly due to the size of run of river plants, the availability of reservoirs in winter, when peak demand historically occurs, and the growing demand from agriculture. As for thermoelectric plants, the unavailability is due to interruptions which cannot be planned, as well as long-term shutdowns for conversions and enhancements. The unavailability of wind plants is due to the discontinuous nature of this source.

Table 5.4 Peak power availability in 2003 – 2007

GW

	2003	2004	2005	2006	2007
Net power	**78.2**	**81.5**	**85.5**	**89.4**	**93.5**
Hydroelectric	20.7	20.7	21.0	21.1	21.1
Traditional thermoelectric	56.0	59.0	62.2	65.8	69.1
Geothermoelectric	0.7	0.6	0.7	0.7	0.7
Wind and photovoltaic	0.9	1.1	1.6	1.9	2.6
Power available at peak	**49.7**	**52.8**	**56.3**	**58.1**	**60.4**
Hydroelectric	13.5	13.6	13.7	13.8	13.8
Traditional thermoelectric	35.5	38.4	41.6	43.2	45.4
Geothermoelectric	0.6	0.6	0.6	0.6	0.6
Wind and photovoltaic	0.2	0.3	0.4	0.5	0.6
Peak demand	**53.4**	**53.6**	**55.0**	**55.6**	**56.8**
Power surplus/deficit	**-3.7**	**-0.9**	**1.3**	**2.5**	**3.6**

Source: AEEG calculations on TERNA data.

After a period of stagnation until 2001 - 02, the electric power available at peak has been constantly rising, from 49.7 GW in 2003 to 60.4 GW in 2007, as recorded in table 5.4. However, it has only been since 2005 that the available power has been higher than peak

[20] Ministry of Productive Activities decree of 28 July and Ministry of Economic Development decree of 19 February 2007, which aimed respectively to provide incentives for maximum power of 300 and 3,000 MW.
[21] 65% for hydroelectric plants, 64% for thermoelectric plants, 83% for geo-thermoelectric plants and 23% for wind plants.

demand. The 3.7 GW deficit in 2003 and 0.9 GW in 2004 became a 1.3 GW surplus in 2005, 2.7 GW in 2006 and 3.6 GW in 2007. For future years we may predict further significant growth in the surplus, thanks to the sizeable expansion referred to in the previous point. For a fuller assessment of the security of the Italian electricity system it is necessary to add over 7 GW of import capacity, the availability of which, however, is not always guaranteed to the extent required, as seen in the summer of 2003 and, more recently, in the winter of 2005 – 06, when an import deficit at the Northern border was recorded of over 4,000 MW. Combined with insufficient hydroelectric production, this has caused the almost complete cancellation of the margin in relation to the operating reserve.

Electricity generation balance

In 2007 the demand for electricity on the grid rose by just 0.7% compared to the previous year, while generation actually fell, albeit slightly (-0.07%). This reduction clearly does not represent a deficit in the national electricity system, which has been significantly enhanced in recent years, but rather the growing price gap in national generation based mainly on imported fossil fuel sources compared to energy imports from France and other nearby countries, produced by internal sources which are broadly sheltered from the international price of oil. Between 2006 and 2007 the average cost for generation in Italy from fossil fuels alone rose by over 25%.

The data shown in table 5.5 provide a clear indication of the growing dependence of the Italian electricity system on natural gas. The share of this source on total gross generation rose from 35% in 2000 to 55% in 2007, mainly substituting oil which in the same period fell from 31 to 7%. Overall the dependency of electricity generation on hydrocarbons remained almost stable at around 62%.

In recent years generation from coal seems to have broadly stabilised and further growth awaits the reconversion of the Civitavecchia and Porto Tolle power plants. The former is well advanced, despite the opposition of local political groupings; the latter is still stuck at the authorisation stage.

2007 saw very strong growth in wind energy (+ 37%), which led this source to contribute 8.2% to overall generation from renewable sources (compared to 5.7% in 2006 and 4.7% in 2005). There was also a contribution from natural hydroelectric power which was markedly lower than the average over the last decade (32.8 compared to 41.8 TWh), mainly due to the fairly unfavourable hydrological year, but also to the progressive use of the reservoir water for irrigation and other public uses. Overall, the contribution from renewable sources other than hydroelectric has more than doubled in the last seven years from 7.2 to 16.6 TWh (from 2.6 to 5.3% in relative terms). Taking into account also the contribution from natural hydroelectric energy, the contribution from renewable sources has, however, fallen, both compared to the previous year (- 5.4%) and compared to the average for the last decade (- 3.4%).

Table 5.5 Electricity balance in 2000 – 2007 (TWh)

	2000	2001	2002	2003	2004	2005	2006	2007
Gross production	**276.6**	**279.0**	**284.4**	**293.9**	**303.3**	**303.7**	**314.1**	**313.9**
Traditional thermoelectric	***218.6***	***216.8***	***227.6***	***238.3***	***240.5***	***246.9***	***255.4***	***258.8***
Solids	*24.4*	*29.1*	*32.0*	*34.3*	*39.9*	*37.5*	*37.5*	*37.2*
Natural gas	*97.6*	*95.9*	*99.4*	*117.3*	*129.8*	*149.3*	*158.1*	*172.6*
Oil products	*85.9*	*75.0*	*77.0*	*65.8*	*47.3*	*35.8*	*33.8*	*22.9*
Other sources(A)	*10.7*	*16.7*	*19.2*	*20.9*	*23.6*	*24.4*	*26.0*	*26.1*
Hydroelectric	***50.9***	***53.9***	***47.3***	***44.3***	***49.9***	***42.9***	***43.4***	***38.5***
from natural sources	*44.2*	*46.8*	*39.5*	*36.7*	*42.7*	*36.1*	*37.0*	*32.8*
from pumping	*6.7*	*7.1*	*7.7*	*7.6*	*7.2*	*6.9*	*6.4*	*5.7*
Other renewable	***7.2***	***8.3***	***9.5***	***11.3***	***12.9***	***13.8***	***15.2***	***16.6***
Geothermoelectric	*4.7*	*4.5*	*4.7*	*5.3*	*5.4*	*5.3*	*5.5*	*5.6*
Biomass and waste	*1.9*	*2.6*	*3.4*	*4.5*	*5.6*	*6.2*	*6.7*	*7.0*
Wind and photovoltaic	*0.6*	*1.2*	*1.4*	*1.5*	*1.9*	*2.3*	*3.0*	*4.1*
Consumption of auxiliary services	**13.3**	**13.0**	**13.6**	**13.7**	**13.3**	**13.1**	**12.9**	**12.6**
Net production	**263.3**	**266.0**	**270.8**	**280.2**	**290.0**	**290.6**	**301.2**	**301.3**
Energy for pumping	**9.1**	**9.5**	**10.7**	**10.5**	**10.3**	**9.3**	**8.8**	**7.7**
Energy destined for consumption	**254.2**	**256.5**	**260.1**	**269.7**	**279.7**	**281.3**	**292.5**	**293.6**
Net imports	**44.3**	**48.4**	**50.6**	**51.0**	**45.6**	**49.2**	**45.0**	**46.3**
Imports	44.8	48.9	51.5	51.5	46.4	50.3	46.6	48.9
Exports	0.5	0.5	0.9	0.5	0.8	1.1	1.6	2.6
Energy demand for the grid(B)	**298.5**	**304.8**	**310.7**	**320.7**	**325.4**	**330.4**	**337.5**	**339.9**

(A) Includes derived gases, other solid and gaseous fuels and other forms of energy.
(B) Energy demand for the grid before grid losses.

Source: TERNA.

In 2007 electricity imports, net of exports, rose by 1.3 TWh (2.9%) compared to the previous year, albeit remaining still significantly under those of 2005 (- 5.8%). On the other hand, the electricity import/export trend in recent years has highlighted the clear tendency for exports to increase, fivefold in the last 5 years, and the relative stability in imports, limited by infrastructure limitations on interconnectors. The increase in sales to foreign customers reflects the growing competitiveness of national thermoelectric generation compared to foreign competition. The new combined cycle plants which have started operations in recent years, though characterised by higher average generation costs, in particular moments of the load curve and in particular operating operations, are able to compete favourably with the coal and nuclear energy plants which are prevalent in other European countries.

Grid planning process

Grid planning criteria are set out in TERNA's Concession Regulations[22] and in the Network Code[23] in which it is envisaged that TERNA pursues the objective of ensuring the development of the transmission service with a view to security, efficiency, reliability and continuity in the short, medium and long term, of guaranteeing the impartiality and neutrality of the electricity dispatching service; and of contributing to the promotion of protecting the environment.

The planning process described in the Development Plan for the domestic transmission electricity grid, which TERNA publishes every year, is based on:

- the development of energy and electricity power demand;
- the development of national generation capacity in terms of size, location and type of plants;
- the interconnection capacity for energy exchange with neighbouring countries.
- the key operational issues for the national transmission system.

The Plan is based on growth in demand of an average 2.2% per year in the period 2007 – 2017 and identifies the summer and winter peak values on the basis of the hours of peak usage, defined as the ratio of annual demand to peak power.

The planning procedure identifies the criticalities in the transmission system and the related development needs on the basis of specific simulations of the functioning of the grid in the scenarios of demand and supply trends which are considered most likely to occur. The criticalities are highlighted in terms of the risk of overload on the primary grid, with at least one grid element (line or transformer) involved in the transport of current which is 20% above the maximum value of normal operations.

The Development Plan published in January 2008 identifies among the main key issues for the development of the grid, the growth in demand, the construction of authorised plant, the availability of imports and the need to cover the power peaks with reserve margins of 20% on average on the mainland, 30% in Sicily and 80% in Sardinia. It sets out how, without grid development , the benefits deriving from the starting of operations of new production plants will be nullified within five years by the gradual increase in demand and the presence of grid limitations, which would not allow the full exploitation of the power plants. In fact, the new generation capacity will largely operate in zones of the grid which are already congested or close to their limits and the risk of not covering peaks in various parts of the country will become very real as from 2012.

[22] Ministerial Decree of 20 April 2005.

[23] Code of Transmission, Dispatching, Development and Security of the Grid, as set out in the decree issued by the President of the Council of Ministers of 11 May 2004.

Criticalities of the electricity transmission grid

The risks of overloading the high voltage grid above all affect the North East of the country, in particular Veneto and Friuli Venezia Giulia, where 55% of the events recorded in 2007 occurred. This part of the grid has transport capacity which is not adequate for the transit of energy imported from the Austrian and Slovenian border, to which should be added the production from local generation. The development of the electricity system and generating plants in Europe and the gradual interconnection of the UCTE system with those of the countries of East Europe is causing a gradual increase in energy flows from Northern Europe which makes the operation of the transmission grid between the North West and the North East of the country potentially critical. In addition, overloads continue in the primary grid in Triveneto while, with the starting of operations of the new combined cycle plants in the centres of Rossano, Brindisi and Foggia, they will increase in the South.

The risks of overload are exacerbated by the energy market. The separation into zones on the Day-Ahead Market (MGP) owing to inter-zonal congestion caused by grid limitations, causes, on the one hand, lower efficiency as a result of the use of less competitive production plants at the expense of more cost-effective plants and, on the other, the creation of charges from congestion for operators and indirectly for end users. Compared to the same period of the previous year, there was an increase in charges due to use of the Dispatching Service Market (MSD) of 40%[24]. In particular in the Centre South zone the share of total charges rose from 26% to 37%. In the recent period, 76% of charges due to the MSD were generated by the islands, the Centre South and Calabria, which overall represent 26% of the country's demand for electricity.

The congestion recorded on the primary grid has a series of negative implications: it limits competition in some zones by reducing the efficiency and cost-effectiveness of the system, it prevents full exploitation of production capacity which is potentially available and sometimes discourages the introduction of new capacity, with greater risks for satisfaction of demand.

The Centre South and the Islands were the most critical areas from the viewpoint of operations (greater vulnerability of the grid and greater charges for dispatching services). Over 70% of energy which is not supplied owing to service problems involves the regions of the South and the Islands. This is caused by parts of the grid which are not always in optimal condition (plant which is old and barely reliable), by reduced levels of meshing of lines and plant on the grid and by transformation and transport capacity which is insufficient in particular load conditions. In Sicily, owing to the load limitations of some lines to 150 kV, the high voltage (HV) grid is partly without meshing with consequent risks of supply failures in the case of service problems at the generating plant. These risks cannot be curtailed until the authorisations are issued for planned grid enhancements in the area.

In the last 7 years, line voltages have mostly stayed within a 5% interval of the nominal value, in compliance with the indications supplied by the Network Code, while for some nodes the voltage has always stayed within 3% of the nominal value.

[24] According to the TERNA 2008 Development Plan charges due to use of the MSD rose from just over €1.0 billion in July 2005 - June 2006 to over €1.4 billion in July 2006 - June 2007.

Voltage values are high in Calabria, Tuscany and Lazio, where there are numerous 380 kV power lines of considerable length, which are hardly used in low-load hours, but necessarily in service for operating security. In North-East Lombardy the voltages are, on the other hand, due to the lower use of connections, which are normally used in the transport of energy imported from Switzerland, in low-load hours for the period in question.

Voltage values below alertvalues, which are in any case within the limits provided for by the Network Code, concern grid areas which are barely meshed, and which see huge power movements and the presence of stations with high-load levels. In the South the areas which have the greatest differences in voltage from alertvalues are Campania (in particular Naples) and Apulia (Brindisi and Bari), owing to the notable load and the presence of phenomena related to the transport of energy from the production centre of Brindisi and from Greece. Non-optimal voltage values are also recorded in Bergamo and Milan, mainly owing to the high loads and transits on the grid in particular operating conditions.

The grid problems highlighted are generally due to insufficient transport capacity of power lines and/or inadequate transformation capacity in the VHV/HV stations. The risk of overloads is currently managed through the provision of countermeasures which are either automatic or activated by operators and which reduce almost immediately transits on some critical grid sections on the occurrence of service failures in particular elements. However, without the scheduled grid enhancements the security margins for the correct operating of the electricity system and the level of adequacy are falling, also owing to the increase in power transit on the grid, due to the development of national generation capacity, thus exposing the system to the risk of failure to satisfy demand which is constantly growing.

Main developments on the transmission grid in 2007 and forecasts

In 2007 new elements of the national transmission grid started operations, with around 210 km of 380 kV lines and 28.8 km at 150/132 kV, around 12 km of 150 kV lines was taken out of service; in addition, the VHV/HV transformation power was increased by around 1,763 MVA and devices were installed to regulate reactive power for around 1,308 MVAR; three new stations were built for the national grid at 150 kV and a new station at 380 kV.

Among the main works completed during 2007 is the 380 kV power line which connects the two stations of Matera and S. Sofia. The line is particularly important for the safe transfer of energy produced by (current and future) generating plants in the South to the rest of the national grid and is particularly important since it enables an increase in the power available in order to guarantee satisfaction of demand, in particular in the Region of Campania which has a high energy deficit.

Various important initiatives are underway or planned for the near future to enhance the 380 kV grid to the South and the critical South – Centre South section, in order to reduce congestion which risks limiting the production of the new power plants which have started operations and which are being constructed in the South. In addition, work is planned to rationalise parts of the high voltage grid which have a high-load density and non-optimal levels of operating reliability and service quality. This also offers the

opportunity to reduce environmental impact. The medium-term plan, set out in table 5.6, calls for an overall enhancement of 21 GW in the main transits between market zones compared to the situation in 2007.

During 2007 studies were also completed to enhance transport capacity on interconnections with France and Slovenia. Manyauthorisation procedures have been completed for 27 projects to develop the national transmission grid and for 11 new switching stations. In addition, plans to increase exchange between the North West and North East, to reduce congestion between market zones, and to reduce grid restrictions on production capacity and work in metropolitan areas have been defined.

For the future the important role played by the incentives for investment in new capacity introduced by the Authority in the third regulatory period for transport tariffs will besignificant. Allowed revenues of 6.9% on the value of existing assets has increased by 2% over a 12-year period for new investments and by 3% for investments aimed at reducing congestion.

Table 5.6 Increase of transit capacity between market zones in the short-medium term

MW

INTERZONAL SECTION	TRANSIT CAPACITY	
	2007	PLAN
North – Centre North	3,200	4,000
Centre North - Centre South	1,300	1,600
South – Centre South	3,900	4,900
Calabria - South	5,600	6,800
Sicily - Calabria	600	1,500
Calabria - Sicily	100	1,100
Sardinia - Mainland/Corsica	350	1,150

Source: TERNA, *Development plan for the domestic transmission electricity grid for 2008*, January 2008.

Development of inter connectors

A particularly strategic aspect of the development of the national grid of are the plans to work to expand interconnections with abroad. The Italian electricity grid is currently interconnected with the grids of countries on the Northern border in alternate current at 380 and 220 kV and with Greece in continuous current at 400 kV. There is also a continuous current connection and one in alternate current at 150 kV between Sardinia and Corsica. These connections are essential for the liberalisation of the integrated electricity market in Europe and offer the country significant opportunities in terms of reducing the cost of electricity.

Analyses and forecasts confirm in the medium - long term an almost certain reduction in transactions and price differentials on the North-West side (France and Switzerland) owing to the lower availability of power and the presence of congestion with the electricity systems of Central and Central-East Europe, which prevent the growth of

imports at the northern border. Various initiatives are planned by TERNA to avoid these phenomena.

The main work planned in the short to medium term concerns the new 380 kV Udine – Okroglo power line to enhance the interconnection with Slovenia; the enhancement of the interconnection grid with Switzerland at 220 kV, Avise – Villeneuve – Chatillon; the enhancement at 150 kV of the interconnection line with Austria, Prati di Vizze – Steinach, currently at medium voltage. In order to increase the interconnection capacity from the North-East border, a new 380 kV line will be built to connect the "Udine West - Sandrigo" national grid line to the 380 kV node at Lienz in Austria. For the longer term new power lines are being studied to interconnect at 380 kV with Austria and Slovenia and two 220 kV connections with the French side.

A further opportunity for Italy is the interconnection with the Balkans owing to the production capacity available in South-East Europe (SEE) and which is expected to increase in the medium - long term and thus ensure diversification of supply sources, exploiting synergies with the electricity systems of the countries in this area, which have quite competitive prices in the medium to long term. The interconnection with SEE countries would enable in the longer term the opening up of new energy borders with Russia, the Ukraine and other countries in the CIS.

Against this background interconnection projects are already at various stages of study using 400 kV power lines in continuous current with Croatia, Albania and Montenegro. In order to reduce the risk of grid congestion also in the SEE area and so ensure the availability of the energy produced with greater regularity, the construction of these interconnections will require expansion of the transmission grids in Albania and in the former Republic of Macedonia.

In defining the development scenarios for the electricity system, consideration is given also to the proposals to make private interconnections with abroad (merchant lines), which are proposed in accordance with the EU and Italian regulatory framework. Currently under construction or about to start are two merchant lines, both with Switzerland: the 380 kV Mendrisio – Cagno line belonging to the Società Ferrovie Nord Milano and scheduled to start operations by the end of 2008; the 150 kV Campocologno – Tirano line, belonging to Edison and scheduled to start operations in 2009. Having taken into account the private interconnection lines which are already authorised or being authorised, in the medium term private interconnectors on Northern borders shall increase in capacity that can be estimated between 1,000 and 2,000 MW. These values are subject to change depending on the work necessary to integrate them into the national grid. Various merchant line initiatives are also underway for interconnection through the Adriatic Sea.

5. 2 Gas

Gas consumption in 2007 and demand forecasts for 2007 - 2015[25]

In 2007 natural gas consumption rose slightly (0.5%) compared to the previous year, albeit remaining below the values of 2005 (-1.6%). As in 2006, the relative stability of consumption was entirely due to the mild winter which caused a marked fall in demand in the domestic sector (from 30.2 to 28.8 billion m^3), a fall which was then reflected in overall consumption which fell from 51.9 to 50.6 billion m^3, with industrial consumption practically stable at 19.9 billion m^3.

On the other hand, there was a significant rise (+5.4%) in the consumption of natural gas for thermoelectric generation, hardly a surprising increase given the significant growth of combined cycle generation capacity over 2005 – 07 and the fall in hydroelectric generation owing to the scarcity of resources in 2007. Overall, the increase of 1.7 billion m^3 in consumption for electricity generation just offset the fall of 1.3 billion m^3 in final consumption, taking overall consumption of natural gas to 84.9 billion m^3 in 2007, compared to 84.5 billion m^3 in the previous year.

For forecasts of demand over the next ten years reference should be made to the scenarios of the Ministry of Economic Development, published in spring 2007[26]. These scenarios have still not been updated to take into account the decisions taken the Energy Council meeting , 6 – 8 March 2007, decisions which set concrete targets for 2020 in energy efficiency, the use of renewable energy and containing greenhouse gas emissions. The distribution of the overall committed targets among the 27 Member-States which was proposed in Europe in spring 2008 is still under discussion.

The two scenarios proposed by the Ministry, the first "trend" and the second "eco-sustainable", reflect the sharp increase in electricity generation from natural gas over the next ten years and lead respectively to demand of 108 and 105 billion m^3 of gas in 2015 (table 5.7). Demand for gas, which in 2010 will be around 98 - 99 billion m^3, appears to be more critical in terms of gas security of supply.is

Table 5.7 Natural gas demand in 2005 – 2015

G(m^3)

SCENARIO	2005	2006	2007	2010	2015
Trend	86.3	84.5	84.9	99	108
Eco-sustainable				98	105

Source: Ministry of Economic Development, May 2007.

[25] The amounts of natural gas are indicated in terms of cubic metres at standard temperature and pressure conditions. To convert the values from cubic metres to tonnes of oil equivalent multiply by 0.000825 tep/m^3.
[26] Scenarios of natural gas demand in Italy and forecasts of development of procurement infrastructures, Ministry of Economic Development, May 2007.

Facing supply shortages inwinter 2008 - 2009

Despite the acceleration of the expansions of the gas pipelines referred to subsequently, the harsh winter conditions similar to those of 2005 –, , the supply shortage period was not completely overcome in 2007In fact only part of the additional supplies of 13.0 billion m^3 per year, available through the TAG and TTPC methane gas pipelines will be available during the winter 2008 – 09. Similarly, the re-gassification terminal at Rovigo will be operative only at the start of 2009 and therefore only a small fraction of the extra 8 billion m^3 might be available.

Should there be a harsh winter such as that of 2005 – 06, considering the continual increase in generation from natural gas in the final stages of oil substitution, and despite the favourable contribution from rain to hydroelectric generation during 2008, natural gas demand might even increase to 88 billion m^3. In this case, and considering the likely further fall in national production, import demand could increase to around 80 billion m^3, compared to the maximum value of under 77.6 billion m^3, which occurred in 2006[27]. The increase in continuous capacity from 290 million m^3/per day in the thermal year 2007 – 08 to 310 million in the thermal year 2008 – 09, should enable a broad balance between demand and supply, unless there are interruptions in supplies, as occurred in the winter of 2005 – 06.

Therefore, the emergency plan which the government passed in the summer of 2006 to address the possible shortage of gas in the winter of 2006 – 07 remains valid. The emergency plan took into account a greater offer of modulation storage by Stogit of 0.6 billion m^3, achieved through increases in the pressure of some storage points made possible by enhancements in the compressors. The increase in the availability of modulation would allow a reduction in the use of the strategic storage, to avoid pressures which are too low and so do not enable demand peaks, linked to particularly cold periods in the last few days of winter, to be covered. To dissuade the excessive use of gas in electricity generation destined for export, the plan envisaged increasing gas transport tariffs to power plants.

Among the main measures adopted was the obligation to re-establish and maintain reserves in the national storage points; this led to a marked increase in natural gas imports during 2006 (+5.4% compared to 2005) despite the fall in consumption recorded during the year. The exceptionally mild temperatures which characterised the whole winter period were reflected in a sharp increase in stored reserves at the end of 2006 (a surplus of 3.5 billion m^3 compared to a deficit of 1.1 billion at the end of 2005).

Also in the winter of 2007 – 08 it was not necessary to use the emergency plan, again owing to the exceptionally mild weather, and the drawing from reserves was relatively limited (-1.3 billion m^3 at the end of 2007 compared to 2006).

Domestic production in 2007 and forecasts for future years

The fall in national gas production continued in 2007. Gas fields in Italy and its territorial waters produced 9.7 billion m^3, compared to 11.0 billion in 2006 and 12.1 billion in 2004.

[27] The situation would be much more difficult if the Ministry's forecasts of demand of 93 billion m^3 in 2008 prove true, but this seems very unlikely as things stand.

The change in trend in 2006 in the exploration activity indicators (number of permits, number of wells and metres drilled), which had raised hopes of an upturn of the sector, did not continue. All the parameters for exploration and development continued, and in some cases accelerated, their historic decline, despite the sharp growth in the price of hydrocarbons in 2007. It is, however, too soon to reach conclusions on the willingness of oil companies to increase investment in national upstream activities which essentially depend on the certainty of sufficiently high and stable prices, and it is possible that as early as 2008 there may be a recovery in the sector.

Table 5.8 Oil and gas exploration and development activity in Italy and results relating to natural gas in the period 1985 - 2007

Years	Permits	Number of wells		Metres drilled (x1,000)		Recoverable reserves G(m^3)	Production G(m^3)
		Exploration	Development	Exploration	Development		
1985 - 1989	312	88	68	189.4	157.7	296	16.0
1990 - 1994	175	40	63	101.2	173.1	316	18.6
1995 - 1999	164	28	34	75.6	74.6	274	19.4
2000	148	20	33	54.8	46.0	249	16.8
2001	140	11	29	23.9	91.9	233	15.5
2002	130	8	22	14.2	43.2	217	14.9
2003	103	10	30	20.2	63.6	188	14.0
2004	95	10	29	22.2	59.3	180	12.9
2005	90	7	33	15.1	66.0	170	12.0
2006	93	15	31	27.0	51.3	151	10.8
2007	90	10	26	19.4	43.6	128	9.7

Source: Hydrocarbon research and cultivation activity in Italy, UNMIG 2007 Annual Report, Ministry of Economic Development, June 2008.

Import capacity in 2007 and forecasts for the years to come

Transport capacity at gas entry points on the national borders has changed slightly compared to the prospects in the last Annual Report for 2007 with the acceleration of the expansion of the TAG and TTPC pipelines. In particular, part of the additional capacity of the TTPC natural gas pipeline was already available in the thermal year 2007 – 08 and the remaining capacity will be made available in the autumn of 2008, in time for the thermal year 2008 – 09. In addition, the first tranche of 3.3 billion m^3 from the expansion of the TAG has already been completed and the remaining 3.2 billion of additional capacity will be available in time for thermal year 2009 – 10.

Other developments to the existing import infrastructure are not currently certain. Possible expansionsin the medium term for the Greenstream pipeline from Libya to Italy are being discussed as is the Panigaglia re-gassification terminal, neither of which might be operational before 2010 - 12. In particular, the latter may encounter significant difficulties owing to the authorisation procedures which lead to conflicting decisions at both State and Regional and local levels.

The data shown in table 5.9 indicates a significant increase in import capacity which under normal conditions, considering the forecast growth in demand, should be capable to ensure supplies at least until thermal year 2009 – 10, unless, as already indicated previously, there are interruptions to supplies.

Table 5.9 Continuous import capacity at the entry points to the Italian network

M(m³)/day

ENTRY POINT	THERMAL YEAR						
	2004 - 05	2005 - 06	2006 - 07	2007 - 08	2008 - 09	2009 - 10	2010 - 11
Tarvisio	88.2	88.3	100.9	100.9	109.9	118.7	118.7
Gorizia	1.0	2.0	2.0	2.0	2.0	2.0	2.0
Passo Gries	57.5	57.5	57.5	58.0	59.4	59.4	59.4
Mazara del Vallo	80.5	80.5	85.1	90.0	99.0	99.0	99.0
Gela	21.5	22.8	25.6	25.6	25.6	25.6	25.6
Panigaglia	11.4	13.0	13.0	13.0	13.0	13.0	13.0
TOTAL	260.1	264.1	284.1	289.5	308.9	317.7	317.7

Source: AEEG processing of Snam Rete Gas data.

Table 5.10 shows a simulation of the balance between demand and supply, obtained by using the gas demand data formulated by the Ministry of Economic Development in the trend scenario and the possible expansions to existing gas pipelines and the starting of operations of new pipelines and re-gassification terminals as set out in the subsequent point.

Table 5.10 Simulation of import capacity demand and supply up to 2015

G(m³)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Demand	**86**	**84**	**85**	**93**	**96**	**99**	**101**	**103**	**105**	**106**	**108**
Domestic production	**12**	**11**	**10**	**9**	**9**	**8**	**7**	**7**	**7**	**6**	**6**
Imports	**74**	**74**	**75**	**84**	**87**	**91**	**94**	**96**	**98**	**100**	**102**
Minimum import capacity											
- under normal conditions	88	87	88	97	101	105	108	111	113	115	118
- under maximum security conditions	97	96	98	108	112	117	120	123	126	128	131
Total available capacity	96	100	105	110	119	130	139	153	161	166	166
- enhanced existing plant	96	100	105	109	114	116	116	116	116	116	116
- LNG plant under construction	0	0	0	1	5	12	16	20	20	20	20
- gas pipelines under construction	0	0	0	0	0	2	7	17	25	30	30
Capacity surplus											
- under normal conditions	8	13	17	13	18	25	31	42	48	50	48
- under maximum security conditions	-2	4	7	2	7	13	19	30	35	38	35

Source: AEEG calculations on Ministry data.

Two hypotheses are considered: the first "under normal conditions" which assume a load factor of 85% for gas pipelines and 90% for terminals; the second "under maximum security conditions" which assume a 10% reduction in load factors. The simulation indicates supply conditions close to security limits up to the end of 2008, followed by a growing and marked surplus in subsequent years. Clearly the balance depends on the actual date that new import infrastructures starts to be used but, on the basis of the expansionsalready made and those expected in the short term, the simulation may be considered reliable at least until 2009 - 2010.

In the medium and longer term, the criticalities also depend on the extent to which Italy adheres to the restrictions agreed within the EU, which could lead to a fall in natural gas demand compared to the Ministry's forecasts. In this case the import capacity surplus would favour Italy's role as a primary hub for gas supplies in Europe.

New infrastructures under construction or planned – Import gas pipelines

During 2007 significant progress was made in the main gas import projects in Italy which are summarised in table 5.11.

Table 5.11 New projects for import gas pipelines

Projects	Annual nominal capacity G(m^3)	Length (km)	Date of completion of feasibility study	Forecast date of starting operations
IGI	8 - 10	212(A)	2005	2012
Galsi	10	940	2005	2012
TAP	10 - 20	520	2006	n.a.
Interconnector Italy Austria	1.3	48	Underway	2009

(A) Length refers to the underwater section.

The IGI underwater interconnection project between Italy and Greece (Poseidon natural gas pipeline) and the pipeline across of Greece (Zeus natural gas pipeline) up to the connection with the Turkish grid, should be operational in 2012. The promoters of the project (Edison and Depa) have started negotiations for the supply of 8 – 10 billion m^3/per annum with the producer countries of the Caspian Sea. In January 2007 a memorandum of understanding was signed between the Italian and Greek governments and exemption of access was granted to third parties for the entire capacity for a period of 25 years. The construction of the natural gas pipeline should start in 2008 with the starting of operations in the first few months of 2012.

The TAP project, promoted by EGL, envisages the construction of a natural gas pipeline connecting Italy with the producing areas of the Middle East through Turkey, Greece, Albania and the Adriatic Sea. In 2006 the basic engineering studies were completed and in the first months of 2008 supply agreements were signed with Iran for a total of 5.5 billion m^3/year for 25 years. The transit agreements are still being finalised and a final investment decision has been postponed until 2009 when the supply agreements are clarified for the remaining 5 – 15 billion m^3/year. The company intends to allocate the transport capacity

of the natural gas pipeline using the open season criteria. Around 50% of the gas imported will go to the plants which EGL is building in Italy.

The Galsi project, which intends to transport 8 billion m³/per annum of Algerian gas to Italy through Sardinia, currently sees the Italian and Algerian governments engaged in drawing up the related inter-government agreement. In November 2006 five of the project promoters[28] signed agreements with the Algerian producer Sonatrach for the supply of 6 billion m³/year for 15 years, another 2 billion m³/year, destined for the methanisation of Sardinia, which will be distributed directly by Sonatrach through a mixed company with Sfirs which belongs to the Region of Sardinia.

New infrastructures under construction or planned – LNG terminals

The status of the projects for new re-gassification plants, set out in table 5.12, shows some progress compared to the last Annual Report for 2007, but there are also some delays. The only certain plant remains the Porto Levante terminal, planned to start operations at the beginningof 2009. The Olt offshore terminal has obtained authorisation but still has appeals still pending at the Regional Administrative Court and it is unlikely to start operations by the end of 2009, as planned in 2007. A similar situation exists for the LNG terminal in Brindisi, which was authorised in 2004 and blocked by local opposition with the request for new studies. In 2008 a new project located in Civitavecchia was added to the projects listed in the table and already proposed in previous years.

Table 5.12 Progress of projects for re-gassification terminals at the end of 2007

Project	Province	Capacity G(m³)/year	Proposing companies	Forecast of operating start	Status of authorisation
Porto Levante offshore	RO	8	GNL Adriatico (Edison - ExxonMobil - Qatar Petroleum)	2009	In final construction stage; operating start scheduled for start of 2009.
Brindisi	BR	8	Brindisi LNG (British Gas Italia)	NA	Authorisation of 2003 suspended for new studies.
Toscana offshore	LI	4	OLT LNG (Endesa Italia, Iride, Asa, OLT Energy)	2009	Authorisation issued in 2006, but still appeals pending to Regional Court against terminal.
Rosignano	LI	8	Edison, BP, Solvay	NA	Feasibility approval issued in 2006, but authorisation process is currently suspended.
Gioia Tauro	RC	12	LNG MedGas (Cross Gas, Sorgenia, Iride, Azienda Energetica Etschwerke Bolzano)	2012	Feasibility approval issued in 2007; VIA-VAS issued in April 2008.
Taranto	TA	8	Gas Natural Internacional	NA	VIA procedure currently suspended for studies.

[28] The equity investment is as follows: Sonatrach (36%), Edison (18%), Enel (13.5%), Wintershall (13.5%), Hera Trading (9%), Progemisa (5%), Sfirs (5%).

Project	Province	Capacity G(m^3)/year	Proposing companies	Forecast of operating start	Status of authorisation
Trieste Zaule	TS	8	Gas Natural Internacional	NA	Feasibility approval issued; VIA process underway.
Trieste offshore	TS	8	Endesa Italia	NA	Authorisation awaiting resizing and relocation of project.
Porto Empedocle	AG	8	Nuove Energie (Enel)	2010	Feasibility approval issued in 2005; VIA-VAS issued with provisions in April 2008.
Rada di Augusta	SR	12	Erg Power & Gas - Shell Energy Italia	NA	Feasibility approval issued in 2006; VIA-VAS issued with provisions in May 2008.
Ravenna	RA	8	Belleli Group	NA	Being examined by Ministry
Senigallia	AN	5	Gaz de France	NA	Being examined by Ministry
Civitavecchia	RM	8	Gavio	NA	Being examined by Ministry
Portovenere	SP	4.5	GNL Italia (ENI)	2014	VIA for extension of Panigaglia terminal started in 2007.

Source: Ministry of Economic Development.

New infrastructures under construction or planned - Storage

The data shown in table 5.13 do not show appreciable difference for the seven projects included in the *2007 Annual Report*, but the technical features are better defined as are the times for the starting of operations of some of these storage points, which in any case is not before 2010. It shows the addition of six new potential sites, whose features are still too uncertain to be included in the table. Even if these new sites are not taken into account, the enhancement of the national storage system is still significant: the addition of working gas is overall more than 9 billion m^3 and the distribution capacity would increase by at least 100 m^3/day.

Table 5.13 Progress of storage concessions up to end of 2007

Project	Province	Type	Working gas M(m^3)	Peak production M(m^3)/ day	Forecast date of per starting operations	Recipient	Progress
Alfonsine	RA	Gas field	1,550	10.0	NA	Stogit	Authorised but launch presents technical and environmental difficulties.
Bordolano	CR, BG	Gas field	1,440	20.0	2010	Stogit	Authorised, but awaiting VIA for the project for the compression plant.
Corinano	LO	Gas field	891	16.5	NA	Ital Gas Storage	VIA procedure underway.
Cotignola - San Potito	RA	Gas field	915	8.0	2012	Edison Storage	Under construction.
Cugno le Macine - Serra Pizzuta	MT	Gas field	742	6.6	NA	Geogastock	VIA appeal presented.
Rivara	RA	Aquifer	3,000	32.0	NA	Independent Gas Management	VIA appeal presented.
Sinarca	CB	Gas field	324	3.3	NA	Gas Plus Storage and Edison Storage	VIA appeal presented.
Poggiofiorito	TE	Gas field	150	1.7		Gas Plus Storage	Under investigation.
Bagnolo Mella	BS						Under investigation.
Piadena Est	CR						Under investigation.
Romanengo	CR, BG						Under investigation.
Rapagnano	AP						Under investigation.
San Benedetto	AP		500		2013	Gas Plus Storage, Acea, Gaz de France	Under investigation.
Total[(A)]			9,512	98.1			

(A) Totals refer to data of individual storage points available.

Source: Ministry of Economic Development.

6 PUBLIC SERVICE ISSUES AND CONSUMER PROTECTION

The main changes relating to public service obligations , protection of customers and supply to the retail market in 2007 arose from the primary and secondary legislation implemented in Italy following the complete liberalisation of retail markets from 1 July 2007. These concerned mainly the electricity market given that the natural gas market has been completely liberalised since January 2003.

In particular Law no. 125 of 3 August 2007 (converting into law Law Decree no. 73 of 18 June 2007 "*Urgent Measures for the Implementation of EU Provisions Regarding the Liberalisation of Energy Markets*") implemented some EU provisions provided for by Directives 54 and 55 of 2003.

For the purposes of the information contained in this paragraph, note should be made to:

- the **obligations of unbundling of sales activities** from distribution companies with at least 100,000 consumers, which at 30 June 2007 still undertook integrated sales activity;
- the establishment of a so **called regime "enhanced protection**" regime for domestic customers and low voltage companies with less than 50 employees and annual turnover of less than 10 million euro which have not chosen a supplier on the free market, characterised by standard supply service conditions (reference energy prices for a temporary period, commercial quality and minimum contractual conditions) defined by the Authority; these standard conditions are also applied to domestic customers in the natural gas sector;
- the adoption of measures aimed at **protecting vulnerable users in terms of healt and low income;**;
- the establishment of a **regime of "safeguarde"** guaranteed by a last resort supplier identified through a tendering procedure by the Ministry of Economic Development by, for customers who do not fall within the regime of "enhanced protection" and who have not chosen a supplier on the free market;
- the provision of **minimum information standards,** accessible through bills and the publication on the website of the Authority for Electricity and Gas; and of **summary tables comparing prices** on the free market, by type of customer, and reference prices;
- the obligation for suppliers make available in the bills and promotional material they send to their own consumers **information on the composition of the energy mix used** to produce the electricity supplied over the previous two years and information on the environmental impact of production, which may be useful in order to save energy.

Supply to the retail electricity market

With the launch of complete liberalisation as from 1 July 2007, in June 2007 the Authority published on its website a voluntary list of the electricity supply companies which meet some reliability requirements, in order to allow consumers to have a better idea of the suppliers on the market (Resolution no. 134 of 12 June 2007).

Under Law 125/07 converting Law Decree no. 73/2007, electricity suppliers of both the "enhanced protection" (i.e. domestic and low voltage small companies) and "safeguarde" (i.e. low voltage non-domestic customers of medium size and medium voltage non-domestic customers which do not choose a supplier on the free market) service with more than 100,000 customers are obliged (within 180 days of the decree coming into force) to implement unbundling from distribution companies.

In the second half of 2007, on the basis of the data collected by the Authority, suppliers of the "enhanced protection" service were 130, of which 120 were also distributors and around 100 also suppliers of the "safeguarde" service.

According to the provisions of Law no. 125/07 regarding the establishment of the "safeguarde" regime, the Authority, with Resolution no. 207 of 3 August 2007, proposed to the Minister of Economic Development to identify essential criteria for tendering procedures aimed at identifying operators providing the safeguarde service. The Authority's proposals were accepted by the Minister of Economic Development with Decree of 23 November 2007, which set :

- the length of the provision of the safeguarde service, at two years, except for the first application, which is one year;
- different tenders by local areas for each safeguarde period;
- the assignment of the tenders to a third party, identified as the Single Buyer;
- recognition to the provider of the safeguarde service of a fee to cover the wholesale supply costs of electricity, dispatching services and marketing costs, broken down by hourly band.

With Resolution no. 337 of 21 December 2007, the Authority set the provisions for the supply of the safeguarde service, in implementation of the decree of the Minister of Economic Development of 23 November 2007, establishing 1 May 2008 as the start date for the safeguarde service. The Resolution also identifiedthe 6 local areas for the provision of the service, the means, timeframes and criteria for organising the tenders as well as the safeguarde fee to be paid to providers when the number of withdrawal points of customers served under the safeguarde regime is limited. The outcome of the procedure for the safeguarding period from 1 May 2008 to 31 December 2008, published on the site of the Single Buyer on 22 February 2008, is as follows:

- Exergia Spa was selected for the areas of Piedmont, Valle d'Aosta and Liguria; Lombardy and Trentino-Alto-Adige; Veneto, Friuli-Venezia-Giulia and Emilia Romagna;
- Enel Energia Spa was selected for the areas of Tuscany, Umbria, Marche and Sardinia; Lazio, Abruzzi and Molise; Campania, Apugia, Basilicata, Calabria and Sicily.

Supply of natural gas to the retail market

The requirements for the supply of natural gas to the retail market in 2007 remained unchanged compared to the prior year: thecompanies selling natural gas must be legally

separated from distributors and authorised to carry out sales activity by the Ministry of Economic Development. At May 2007 there were 386 authorised sales companies according to the data published by the Ministry of Economic Development. Given, that, some of the companies which seek ministerial authorisation remain inactive, the companies authorised and operational were 312 in 2007 according to the Annual survey carried out by the Authority.

Following the indications contained in Law no. 239 of 23 August 2004, the Authority defined, with Resolution no. 10 of 18 January 2007, the public tender aimed at identifying, for each year, the last resort suppliers for consumers with annual consumption below or equal to 200,000 m^3. The Resolution had set the first deadline for the presentation of the request to take part in the tender at 5 February 2007, but by that date no sales company had applied. The Authority, with Resolution no. 213 of 6 September 2007, therefore put back the aforementioned deadline, admitting sales companies which applied until 22 September 2007 for participation in the public tender for the thermal year 2007-2008 (from 1 October 2007 to 30 September 2008). The Authority then clarified the role of the last resort supplier with Resolution no. 221 of 13 September 2007, as well as making some changes to the operating procedures. The selection of operators arising from this procedure, which was approved by the Authority with Resolution no. 243 of 28 September 2007, enabled the identification of 7 last resort suppliers for the 5 macro-areas into which the country had been divided.

Table. 6.1 Table of offers: last resort suppliers

MACROAREA	No.	OPERATOR	QUANTITY (m^3)
North Piedmont (E1), South Piedmont and Liguria (E2)	1	Eni - Gas & Power Division	30,000,000
Eastern Lombardy (C), Western Lombardy (D)	1	Asm Energia e Ambiente S.r.l.	30,000,000
	2	Eni - Gas & Power Division	30,000,000
Friuli-Venezia Giulia (A), Trentino Alto Adige and Veneto (B), Basso Veneto (G)	1	Eni - Gas & Power Division	30,000,000
Emilia and Liguria (F), Romagna (I), Tuscany and Lazio (H), Umbria and Marche (L)	1	Eni - Gas & Power Division	30,000,000
Lazio (N), Marche and Abruzzi (M), Basilicata and Apulia (O), Campania (P), Calabria (Q) and Sicily (R)	1	Eni - Gas & Power Division	30,000,000

Suppliers' obligations, supply conditions and protection of customers

The system of obligations and supply conditions aimed at protecting consumers in the two markets of electricity and gas had already been set out in December 2006 (see *2007 Annual Report*) in its essential elements which broadly go beyond the requirements to implement the 2003 EU Directives. In summary they include:

- **billing transparency** (contract and supply, billing, consumption, breakdown of charges, payments) and the contents of the information which must obligatorily be provided to consumers in force since 1999 for the gas sector and since 2000 for the electricity sector; these have been reviewed in light of the requirements of the Directives in 2006 and have been in force since 1 January 2007;

- **minimum mandatory contractual supply conditions** (meter reading, calculation of consumption, billing frequency, times and means for payment, delay in payments and default, interruption of supply, payment by instalment, handling of complaints) in force since July 2000 for the electricity sector and since January 2003 for the natural gas sector;
- **Commercial codes of conduct** for sales to eligible consumers (specific conduct obligations, especially in relation to information, in contacting possible customers and in making supply contracts with them) in force since December 2004 for natural gas and since 1 January 2007 for the electricity sector; the Commercial Code of Conduct for the electricity sector envisages that a specific **price comparison note** be provided as an instrument to facilitate the comparison of the offers which will be made to domestic and non-domestic consumers, so as to reduce a lack of transparency by suppliers;
- procedures for the presentation of **complaints;** following numerous complaints from consumers and notifications from consumers' associations, the **rules for paying by instalment** for the consumer faced with particularly heavy adjustment charges were strengthened and up-dated in the electricity sector;
- the standards **of commercial quality of service, security and continuity** of supply, to be uniform throughout Italy and binding for distributors (which in the electricity sector at 31 December 2006 supplied the captive market directly);
- the systems of **automatic compensation** on bills for failure to comply with specific or individual commercial quality standards, as well as breach of contractual clauses (between 2005 and 2006 automatic compensation to consumers for failure to comply with commercial standards rose in the gas sector from 31,189 to 35,146 and in the electricity sector from 62,725 to 73,690).

In the first half of 2007, awaiting the Government to provide indications regarding the future structure of the retail market in the electricity sector, the Authority adopted the following rulings which completed the aforementioned regulations:

- price comparison notes, provided for by the Commercial Code of Conduct for the electricity sector, which suppliers must present together with new commercial proposals for supplies (Resolution no. 110 of 11 May 2007);
- obligatorily quality standards (as from 2008 for suppliers with more than 100,000 customers) for call centres of electricity and gas suppliers (Resolution no. 137 of 20 June 2007);
- rules for withdrawing from electricity and gas supply contracts which are favourable to customers (Resolution no. 144 of 26 June 2007);
- rules for the provision of enhanced protection and safeguarde electricity services for consumers pursuant to Law Decree no. 73 of 18 June 2007, (Resolution no. 156 of 27 June 2007)
- procedures for accessing basic data for commercial proposals for the supply of electricity and/or natural gas (Resolution no. 157 of 27 June 2007)

Disclosure of information to customers was also enhanced through the promotion a dedicated information service on the liberalisation of the electricity market ensured by a specific call centre activated by the Single Buyer, the publication of a dedicated service on the Authority's website (see *Simple Energy* and *The Consumer Window*) and the publication of a leaflet giving information on the opportunities offered by liberalisation and included with the main national newspapers.

During 2007 a survey was also launched for the two sectors on the issues and needs related to comparing retail sale offers as well as the establishment of a working group to create automatic comparison systems for offers based on a calculation engine which already exists in other countries.

Law 125/07 converting the Law Decree – containing measures aimed to comply with the complete liberalisation of the electricity market as from 1 July 2007 – also defined the obligations for suppliers to providetransparent information on the energy mix to customers through their energy bills in compliance with the provisions of EU Directive 2003/54/EC, as set out at art. 3 para. 6. This obligation was only partly contained in the rules on the transparency of billing documents which was reviewed in 2006 by the Authority, since it was limited to information about the mix of sources which characterise the national production of electricity.

In response to some criticalities which emerged in the initial phase of full liberalisation of the electricity market to domestic customers, and which were also caused by the number of new operators in the sector, Resolution no. 272 of 26 October 2007 introduced further protective measures which implied checks on the correctness of conduct by companies in meeting requests to adhere to the new two-tiers price offers established by the Authority, and more detailed rules so that operators of the enhanced protection service shall offer "regulated prices"by transparent means which clearly distinguish them from the commercial offers of suppliers on the free market.

In addition, in the second half of 2007 particular effort was dedicated at providing information to consumers on the opportunities offered by liberalisation. With Resolution no. 140 of 22 June 2007, the Authority established at the Single Buyer Spa a call centre which since 1 July 2007 has provided information to consumers on the liberalisation of the electricity market and the service, given the positive results achieved, was extended to the gas sector too as from October 2007.

Also shared by the two sectors is the three-year project launched with the Electricity Equalisation Fund (*Cassa conguaglio per il settore elettrico* – CSSE) for the handling of complaints, petitions and notifications (*Pooling of the Electricity Equalisation Fund for the undertaking of material, informative and awareness-raising activities, including for preparatory and instrumental purposes as part of the assessment of complaints, petitions and notifications presented by consumers pursuant to art. 2 para. 12, letter m), of Law no. 481 of 14 November 1995,* launched by Resolution no. 141 of the Authority of 22 June 2007).
In relation to the last two initiatives mentioned, with a view to an increasingly effective use of resources and inspired by the criteria of cost effectiveness, the Authority has started a project, to concentrate in a single structure called "*Sportello per il consumatore*" the work of the call centre of the Single Buyer and the handling of complaints through the CCSE.

Treatment of vulnerable customers

Law no. 125/07, art 1, para. 3, provides for "… the adoption, pursuant to article 1, para. 375, of Law no. 266 of 23 December 2005, with the decree of the Minister of Economic Development, in agreement with the Ministry of Finance and the Ministry of Social Solidarity, within sixty days of the coming into force of the law converting this decree into law, of measures aimed at protecting users in particular conditions in terms of their health or income".

The definition of the protection mechanisms for domestic users who are in difficulty was the subject of three consultation documents in 2007 issued by the Authority, regarding the *Revision of the tariff system for low voltage domestic users*. In the future it is planned to gradually abandon the criteria of generalised social protection, which today is implicitly included in the structure of the tariffs applied to domestic customers, to the benefit of the an explicit mechanisms aimed at guaranteeing adequate protection to domestic customers who are in difficulty. In this regard by inter-ministerial decree of 28 December 2007, published in the Italian Official Gazette on 18 February 2008, the government established the primary regulatory framework:

- by introducing as from 1 January 2008, mechanisms to compensate costs incurred by vulnerable customers;
- by identifying in economic and serious health problems the situations which show particular vulnerability for domestic customers;
- by identifying in the "indicator of the equivalent economic situation" the instrument to select the potential beneficiaries and by defining a single access threshold throughout Italy;
- by envisaging the possibility of accumulating the incentives granted for conditions of economic difficulty with those granted for serious health problems, such as to require the use of electric powered medical and therapeutic devices which are needed to stay alive;
- by providing that the charge arising from the introduction of such measures is repaid by all customers (domestic and otherwise) of the electricity market.

The operating of these mechanisms will be ensured (retroactively as from 1 January 2008) by a specific ruling of the Authority.

A similar initiative would also be beneficial in the Authority's view in the gas sector too in which, it should be recalled, the possibility is envisaged for local authorities to set up funds – provided by a premium of no more than 1% on distribution tariffs, net of taxes – to cover costs related to the supply of gas to customers in difficult economic conditions, to the elderly and disabled, in accordance with criteria defined by the local authorities themselves. This provision has so far been little applied.

Disconnections owing to default

The contractual supply conditions established by the Authority also regulate the suspensions of supply for failure to pay bills. Operators can proceed to disconnections for default only following written notice to the customer indicating: the final deadline for

payment, the means of notification of payment and the deadline beyond which, without payment, suspension may occur. Suspension of supply is not allowed in any case if such supply is necessary for the operating of medical equipment and on Fridays, Saturdays, Sundays, holidays and days before holidays.

The Authority does not monitor the number of disconnections for default, but rather the number of requests for reactivation following suspensions for default. In the electricity sector in 2007 these were 946,624 (low voltage customers), while in the natural gas sector they were 66,715 (customers supplied at low pressure)[29]. The number of reactivation requests following suspensions for default in the electricity sector has risen in recent years (310,540 in 2004), also following the introduction of remote-managed meters which enable the supplier, rather than cutting off power, to effect a drastic reduction in the power supplied to a so-called "minimum vital" level (around 0.5 kW). This practice, which is recommended by the Authority for greater protection of customers, minimises the actual harm to customers pending regularisation of the relationship.

Tariff regulation and final prices

Tariff regulation, which is aimed primarily at infrastructure activities undertaken on the grid and is implemented pursuant to the law setting up the Authority (Law 481/95) through the price cap mechanism, sets out the regulator authority's efficiency targets for a four-year regulatory period as shown in Table 6.2. For the electricity sector in December 2007 the Authority defined the tariffs for transmission, distribution and metering for the third regulatory period, 2008-2011; for natural gas the price cap coefficients indicated in the Report to the European Commission of July 2007 remained unchanged since they refer to the 2005 –2009 for transmission and LNG, 2004-2008 for distribution, and 2006-2010 for storage.

In relation to the regulation of final prices, Law no. 125/07 established for domestic customers of the electricity and natural gas sectors and for small-size low voltage domestic customers (with fewer than 50 employees and turnover below 10 million euro) the so-called "enhancedprotection" regime. In particular para. 3 of Law 125/07: *In order to guarantee the EU provisions regarding universal service, the Authority for Electricity and Gas indicates standard supply conditions for the service and establishes provisionally, on the basis of the actual costs of the service, reference prices for electricity supplies to customers as set out in para. 2 and natural gas supplies to domestic customers, which distribution or sales companies, as part of their public service obligations, include among their own commercial offers, contemplating also the possibility of choosing between differentiated tariff plans and hour bands.*

During the year, therefore, the Authority regulated the "enhancedprotection" service by establishing the standard supply conditions for the service and provisionally on the basis of the actual costs of the service, reference prices for electricity supplies. The reference economic conditions are updated on a quarterly basis by the Authority and must be offered by suppliers together with their other offers.

[29] In the natural gas sector the number of "domestic" customers is around half that of the electricity sector (30 million), but the significant gap in the number of disconnections is explained primarily by technical and security reasons which lead operators to disconnect supplies only in extreme cases.

In compliance with the provisions of Law no. 125/07, the "reference economic conditions" have been established also for domestic customers of the natural gas service (such as maximum prices which are differentiated locally and updated quarterly), which sales companies must offer alongside their own offers, for enhancedprotection of consumers. It should be recalled that, given the difficult competitive conditions of the natural gas sale sector in Italy, these measures were already in force since the liberalisation of the market, as mentioned in the Report to the European Commission of July 2007.

Despite the complete liberalisation of 1 July 2007, almost all domestic customers in the second half of 2007 maintained the reference economic conditions established by the Authority and applied by the providers of the enhanced protection sale service. The percentage of industrial customers which took advantage of the safeguarding service was lower (81,6%).

In the natural gas sector 92% of gas consumed by domestic customers is supplied by the protected market at the economic supply conditions established by the Authority; the share of protected customers therefore remained unchanged compared if to 2006[30]. On the other hand, the non-domestic sector shows signs of greater dynamism since (with the exception of electricity generation) in 2007 the shares of gas supplied on the protected market fell significantly compared to 2006 for both trade and services (42.9% vs. 64.2%), industry (3.7% vs. 6.4%) and electricity generation (0.03%).

Table 6.2 Reference economic conditions at 31 December 2007

	Electricity			Gas			
	Large industrial companies	Small-medium industrial and commercial companies	Domestic sector	Thermo-electric uses	Industrial companies	Commercial and service companies	Domestic sector
Reference economic conditions regulated by AEEG pursuant to Law 125/07 (Y/N)	N	Y(A)	Y	N	N	N(B)	Y(B)
% customers at reference economic conditions	81.6		99.7	0.03	3.7	42.9	92.0
Possibility of turning to reference economic conditions regulated by AEEG (Y/N)	N	Y	Y	N	N	N	Y
No. suppliers with obligation to propose reference economic conditions	130(C)			386(D)			

(A) Pursuant to Law no. 125/07 the reference economic conditions defined by the Authority apply to low voltage non-domestic customers with fewer than 50 employees and turnover below €10 billion. For remaining non-domestic customers who have not changed supplier the conditions defined in the "safeguarding" regime are applied.
(B) Only domestic customers may access the economic supply conditions established by the Authority.
(C) Suppliers of the "greater protection" service defined by para. 3, art. 1, Law no. 125/07.
(D) Figure relating to sale authorisations at 30 May 2007 issued by Ministry of Economic Development; it should be recalled that according to the annual AEEG survey, there were 312 operational suppliers in 2007.

Source: AEEG calculations on data provided by the operators.

[30] In the *Annual Report* of the previous year the percentage of protected domestic customers was indicated at 89.5%, but following further checks and controls on the data, the figure to be considered correct is 92%.