Autorità per l'energia elettrica il gas
e il sistema idrico

Report 570/2017/I

ANNUAL REPORT
TO THE INTERNATIONAL AGENCY FOR THE COOPERATION OF NATIONAL ENERGY REGULATORS AND TO THE EUROPEAN COMMISSION ON THE REGULATORY ACTIVITIES AND THE FULFILMENT OF DUTIES OF THE ITALIAN REGULATORY AUTHORITY FOR ELECTRICITY, GAS AND WATER

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31 July 2017

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1 FOREWORD

This document was written by the Italian Regulatory Authority for Electricity Gas and Water and it provides the Agency for the Cooperation of Energy Regulators (ACER) and the European Commission with a report on the business it has carried out and on the execution of its tasks pursuant to Articles 37.1.e) and 41.1.e) in respect of Directives 2009/72/EC and 2009/73/EC.

The structure of the report is in line with the definitions of the European Council of Energy Regulators (CEER) and has been shared with the ACER and the European Commission's Directorate-General for Energy.

The report analyses the main aspects of the structural evolution of the electricity and gas markets, both in relation to regulatory activity and to the state of competition. The report also includes a description of recent developments in legislation and regulation on the energy market and in business carried out in terms of consumer protection and national regulatory competence for the security of supply.

Three aims are guaranteed by all Member States of the Union: security of supply, the accelerated decarbonisation of the whole economy and the minimisation of prices for the competitiveness of the economy and the welfare of citizens. Italy, which is one of the European Union's most sizeable markets, is well-ahead in its pursuit of these three aims. This is according to a summary of the same aims which relies, among other things, on two main tools launched by the Authority. These tools are the *capacity market*, which complements and completes *energy only* markets, and the dispatching reform which will encourage the full integration of renewable energy sources with short-term markets.

Internationally speaking, we witnessed European institutions being given more decision-making powers than before. Areas that were once an absolute prerogative for authorities or national governments have, in just a few years, become the subject of European codes, which envisage decisions divided on a continental or "regional" level.

In this new scenario, national authorities have put in place new procedures for co-regulation, which are used to make decisions of a European or regional nature, and take into account the details of individual interconnected systems. Numerous network codes and guidelines have been prepared in this way. They act as a large *corpus* of European legislation, having launched reform processes in all Member States, and they will last for many more years to come.

Convinced of the value created by the cooperation between the institutions dealing with energy policies and regulations, I hope that our intensive work with the ACER, CEER and other European regulators can continue in the same way so that we may succeed in integrating markets and infrastructures.

Milan, 31st July 2017

THE PRESIDENT

Guido Bortoni

2 SUMMARY/MAIN DEVELOPMENTS IN THE ELECTRICITY AND NATURAL GAS MARKETS IN 2016

Main changes in European legislation

In 2016 the debate between European institutions on energy and the development of infrastructures was focused on preparations for the finalisation, by the European Commission, of the Legislative Package *Clean Energy for All Europeans*, published on 30th November 2016. This is a comprehensive series of regulatory proposals that concern energy efficiency, renewable energy, the electricity market design, security of electricity supply and governance rules for the Energy Union. The debate between European institutions on the proposal for a regulation on the security of natural gas supply, as presented by the European Commission last year, has also continued.

Still in 2016, three Network Codes for the electricity sector[1] and two Network Codes for the natural gas sector[2] entered into force. Additionally, over the course of the year, an agreement has been reached, in accordance with the Comitology procedure, on other relevant parts of the electricity model (so-called *Target model*), on the *Guidelines* on balancing and management, as well as on the operation of the systems.

The REMIT regulation concerning the integrity and transparency of the wholesale energy market has fully entered its implementation phase at both the national and European level.

Main changes in national legislation

On 8th July 2016, Italian Law no. 122 of 7th July 2016, *Provisions for the fulfilment of obligations deriving from Italy's belonging to the European Union (*European Law 2015-2016*)*, was published in the *Italian Official Gazette*. Article 33 of this Law introduces **further provisions for the correct implementation of the Third Energy Package**, partially amending Italian Legislative Decree no. 93 of 1st June 2011. According to the new legislative provision:

- The Regulatory Authority must identify the conditions for access to cross-border infrastructures, taking into account the guidelines adopted by the Ministry of Economic

[1] This refers to the following regulations:
- 17th May 2016, Regulation (EU) 631/2016, which defines and harmonises the technical requirements for connection to the networks by generators.
- 7th September 2016, Regulation(EU) 1388/2016, for new connections to networks from the demand side;
- 28th September 2016, Regulation (EU) 1447/2016, for connections of continuous current, high voltage cables.

These Network Codes define the functional requirements for connection – mainly for industrial loads, distribution networks and offshore plants – necessary for the integration of renewable energy sources and the development of smart grids, ensuring the security of the system and the implementation of the internal electricity market. As regards these aspects, also note the approval, according to the Comitology procedure, of the Guidelines for the operational management of electrical systems, which establish the rules for maintaining the security of the interconnected electricity transmission system in real time.

[2] As regards natural gas, on 17th March 2017 both the amendment to the Network Code for capacity allocation mechanisms in gas transmission systems (Regulation (EU) 459/2017), containing the new rules for allocating incremental capacity, and the Network Code for the harmonisation of natural gas transport tariffs (Regulation (EU) 460/2017) were published in the *Official Journal* of the European Union. Both Codes entered into force on 6th April 2017.

Development, only for the obligations arising from acts and international agreements stipulated with States other than those belonging to the European Union;

- The companies that, at their own expense, build new electrical lines for interconnection with the electrical systems of other member States of the European Union, are designated as transmission system operators, upon certification from the Regulatory Authority;
- The Regulatory Authority's sanctioning powers have also been extended to breach of the obligations provided for by Article 20 and Annex I of the Regulation (EC) 714/2009 and Articles 20 and 21 and Annex I of the Regulation (EC) 715/2009. This extension was introduced to overcome the remarks of the European Commission;
- The definition of 'vulnerable customer' was introduced, to remedy the overlap between two different institutions: that of the vulnerability of the customer, previously introduced into Italian legislation[3], and that of protected customer in the gas sector, identified by European legislation[4].

The Italian Law no. 232 of 11th December 2016, *State Budget for the 2017 financial year and Multi-year Budget for the three-year period 2017-2019* (Italian Budget Law 2017), intervened on the **rules on area-related calls for tenders for the natural gas distribution service** and, in particular, it established that the outgoing operator is obliged to continue management of the service until the date of commencement of the new assignment, continuing to pay the concession fee envisaged by the contract and limiting management to ordinary administration.

Considering the powers attributed to the Authority, Italian Legislative Decree of no. 257 of 16th December 2016, *Rules for implementing Directive 2014/94/EU of the European Parliament and the Council of 22nd October 2014 on the deployment of alternative fuels infrastructure* is also of significance. This Directive requires Member States to adopt a Strategic National Framework for the development of the market for **alternative fuels in the transport sector**, for the deployment of the relative infrastructure. The implementing decree for the said EU Directive established:

- The installation, by 31st December 2020, of an adequate number of charging points, so as to ensure the circulation of electrical vehicles in urban and suburban agglomerations, in other densely populated areas and in the networks of certain areas, gradually identified according to public accessibility criteria;
- That the storage infrastructures for LNG, related to or functional for the connection and deployment of the national natural gas transport network or isolated parts of the same, must be considered as strategic infrastructures and establishments. Therefore, the operators of the aforementioned infrastructures are subject to public service obligations, as defined and regulated by the Authority in terms of investment remuneration and rules governing access. The evaluation of the strategic nature of the infrastructure must in any case be preceded by a cost-benefit analysis, following consultation of the Authority for the regulatory aspects, in order to evaluate the overall economic, environmental and social sustainability of these interventions. The loading, storing and unloading onto ships or tankers of part of the LNG not

[3] Article 22 of Italian Legislative Decree no. 164 of 23rd May 2000 and subsequent amendments.
[4] Article 2 of Regulation (EU) 994/2010.

intended for the national natural gas transport network, do not fall within the activities regulated by the Authority, therefore they can be carried out under an accounting unbundling regime, according to the methods identified by the Authority, in order to avoid charges borne by the regulated system;

- The Authority is responsible for both updating the economic conditions for the supply of gases other than natural gas for isolated networks, and determining the parameters and calculation criteria for remuneration of the service of distribution, metering and, limited to vulnerable customers, sale of natural gas, including derived from LNG, through the same networks;
- In cases of authorisation for the deployment of new fuel distribution plants and the total restructuring of pre-existing fuel distribution plants in the road transport system, the Regional Authorities must equip themselves with electrical charging infrastructures, as well as compressed natural gas or LNG refuelling infrastructures. Therefore, within three months from the entry into force of the Italian Decree (and therefore by 14th April 2017), the Authority must adopt measures aimed at the elimination of penalties for exceeding daily capacities at the transport and distribution network re-delivery points directly connected to distribution plants of natural gas used as motor fuel.

Italian Decree Law no. 243 of 29th December 2016[5] has **extended the incentives in favour of operators of biomass power plants**, as per Article 1, paragraphs 149 and 150 of Italian Law no. 208 of 28th December 2015.

Other extensions were established with Italian Decree Law no. 244 of 30th December 2016[6]. In particular:

- Deferral of two years, from 1st January 2016 to 1st January 2018, of the **deadline for reforming of the structure of the tariff components of the general electricity system charges for customers of electrical services with uses other than domestic.** The Decree repealed previous rules and envisaged that, from 1st January 2017, the variable parts of the general system charges are to be applied to electricity withdrawn from public networks with obligation of third party access, and has established the various percentage rates related to the new taxation criterion;
- Extension, for 24 months, of the deadlines for publishing calls for tenders for the assignment of the natural gas distribution service in the territorial areas where municipalities are located that were affected by the earthquakes of 24th August 2016 and 26th October 2016;
- Extension, to 30th June 2017, of the obligation to install a supply meter aimed at accounting for the consumption of each real estate unit and at encouraging division of expenditure based on actual consumption;
- Extension, to 31st December 2017, of **incentives for large energy efficiency projects**, no lower than 35,000 toe/year, whose recognition period for white certificates ended by 2014;

[5] Concerning *Urgent interventions for social and territorial cohesion, with particular reference to critical situations in certain areas of the South of Italy* converted, with amendments, into Italian Law no. 18 of 27th February 2017.
[6] Concerning *Extension and definition of deadlines*, converted, with amendments, into Italian Law no. 19 of 27th February 2017. See, in particular, paragraphs 5, 9, 10 and 10-*quinquies* of Article 6 and paragraphs 1 and 2 of Article 13.

- Extension, from 31st December 2016 to 31st December 2017, of the maximum limit, equal to the amounts as of 30th April 2010 reduced by 10%, for the payment of indemnities, compensation, fees, wages or other utilities, by public administrations, including independent Authorities, to the components of the governing, management and supervisory bodies, the boards of directors and collegiate bodies, as well as the office-holders of any kind;
- Deferral, to the 31st of December 2017, of the date until which specific coefficients continue to be applied to the combined production of electricity and heat. These coefficients have been indicated by the Authority and are necessary for identifying the quantities of fuel that, when used in the aforementioned plants, may be considered to be used for the production of electricity and that are therefore subject to subsidised excise duty.

The rulings still in the process of being approved include the draft law for the *Annual antitrust law* (Senate Act 2085-B), the so-called *'DDL Concorrenza' ('Antitrust Draft Law')* which introduces certain rules on energy.

As previously reported in the *Annual Report 2016*, the ruling **eliminate, from 1st July 2019[7], the transitional rules on prices in the natural gas (protection service) and electricity (enhanced protection service)**, establishing that the Authority shall:

- Adopt provisions suitable to guarantee, in the electricity sector, the safeguarded service for domestic final customers as well as for companies with under 50 employees and an annual revenue no greater than 10 million euros that have a low-voltage connection and no energy supplier; this through competition procedures by territorial area and under conditions that incentivise passage to the free market;
- Prepare for the creation and management, by the Integrated Information System operator, of a web portal for the collection and publication of the offers available on the retail market, with particular reference to domestic users, companies with a low-voltage connection and companies with annual consumption no greater than 200,000 S(m^3), as well as establish a technical advisory committee with assurance functions on the contents of the said web portal;
- Draw up a Report related to the monitoring of electricity and gas retail sales markets, with the purpose of achieving a series of goals aimed at terminating the enhanced protection service;
- Adopt ***Guidelines*** **for the promotion of commercial electricity and gas offers** in favour of purchasing groups and to create web platforms aimed at facilitating the aggregation of small consumers. Furthermore, Article 36 defers the **revision of the rules governing the electricity bonus and the gas bonus** for economically disadvantaged customers and those who, in poor health conditions, use electrical life support equipment, to a Ministerial Decree to be drafted after consulting the Authority.

During examination of the ruling, have been introduced, inter alia, the following provisions on the subject of:

[7] In the previous approved version, the bill set the termination of the transitory rules on prices for domestic customers, for both gas and electricity, at the 1st of July 2018.

- bills with significant total amounts due to delays or interruptions in billing or the prolonged unavailability of actual consumption data; these bills should be identified according to conditions defined by the Authority. The ruling imposes electricity and gas suppliers the obligation to allow payment by instalments, and distributors to assume responsibility of any prolonged unavailability of actual consumption.
- renewable energy production plants and in the sector of energy efficiency.

Moreover, the draft law, as amended by the Senate's Committee for Industry, Trade and Tourism, envisages measures for the transparency of the electricity and gas market, establishing a **list of entities authorised for sale to end customers**, according to the methods and requirements identified with a Decree from the Ministry of Economic Development, after consultation with the Authority.

Developments in the electricity market

Main changes to regulation

With regard to **unbundling**, it should be noted that the deadline for fulfilment of the obligation for companies that sell electricity to end customers, to separate their communication and brand policies, has been extended to 1st January 2017. This is in await of the approval of the so-called *'Antitrust Draft Law'* and therefore to enable adequate coordination between the new regulatory framework and the obligation to separate communication and brand policies (de-branding).

In relation to **dispatching services**, in order to complete the reform of the switching process managed under the Integrated Information System (SII), some provisions have been adopted to enable the dispatching user to operate in this new regulatory context, streamlining the process for signing dispatching and transport contracts, as well as the ways in which they will be terminated in the event of breach by the user. With the purpose of optimising the interaction processes between the various entities operating in the electricity system, the Authority has also allocated the aggregation of withdrawal measurements for the purposes of settlement, with reference to the electricity withdrawal points handled on an hourly basis, to the Integrated Information System. This activity, for which Terna is now entirely responsible, was previously carried out by distributors.

Interventions in relation to terminating dispatching and transport contracts, due to breach by the user, and activation of last resort services in the electricity sector, have been approved with the objective of reducing the time necessary to terminate these contracts and, consequently, the period in which end customers remain in last resort services – if activated – also considering the need to reduce the burden of both switching processes already in place and settlement processes. As a consequence of these interventions, and considering the times envisaged in the event that the dispatching user intends to make use of the option to revoke, the total time for termination of the contract is equal to 17 working days.

In June 2016, the Authority set out guidelines on the first phase of the comprehensive reform of the rules governing the electricity dispatching service. The primary aim is to open the dispatching service market (MSD) to participation of the demand side and the production units powered by non-programmable renewable resources. The first phase of the reform excludes all consumption

units and production units not handled on an hourly basis, as the participation of profiled users would be extremely risky for dispatching users.

After a detailed consultation process, the Authority updated the rules governing actual imbalances, in order to contrast the non-diligent system programming strategies adopted by numerous input and withdrawal dispatching users, and to arbitrate between imbalance prices and zonal prices or between zonal prices within each macro-zone. In particular, from 1st August 2016, a valuation of the actual imbalances based on a mixed single-dual pricing system has been introduced for dispatching points for consumption units and dispatching points for non-significant production units other than those powered by non-programmable sources.

As concerns the **regulation of the technical quality of services,** in January 2017 the Authority published on its website the fourth national ranking of electricity distribution companies in relation to the number and duration of interruptions. The data published confirmed that families and small electricity consumers that benefit from the improved continuity of the service are mainly located in the North of Italy, in urban areas, and are served by distribution companies with most of their network underground. For industrial customers connected to the medium voltage network, the figures also highlight that the lowest number of interruptions occurs in the provinces of the North of Italy. Furthermore, the Authority has identified the objectives for annual improvement (trend levels) of the continuity of the electricity distribution service for the period 2016-2023. Finally, a round table has been established on the quality of the service, aimed at gaining further insight into the following themes: resilience of the electricity system; regulation of premiums/penalties for unexpected long duration interruptions, even attributable to force majeure; traceability of individual standards for users connected to the medium voltage network in industrialised areas; special forms of contracts for users connected to the medium voltage network.

Over the course of 2016 the Authority approved the *Integrated Text on Electricity Metering* (TIME), which pursues the objective of streamlining the regulation of electricity metering, integrating the regulation of metering energy input and withdrawn and metering energy produced into a single ruling, reviewing the underlying definitions and the responsibilities of the various operations that make up metering. In particular, the new TIME introduces the concept of metering point, extends the scope of application of the provisions relating to plans for replacing metering equipment with second generation instruments (2G), lays the foundations for the subsequent updating of the settlement regulation in terms of the profile of electricity production and inputs by photovoltaic plants.

In implementation of national regulations, the Authority has also defined the functional specifications for smart, low-voltage meters and the expected performance levels of second generation smart metering systems, so-called '2G' systems, with a view to replacing the first generation meters which will have completed their expected useful life for regulatory purposes. These levels were defined taking into account the expected development of the Integrated Information System, the evolution of the regulation of the billing and correction process, the switching procedures, also in consideration of the progressive conclusion of the enhanced protection service, the introduction of new commercial formulae, the possibility of pre-payment and, in perspective, the participation of end customers connected to the low voltage network to the market of dispatching services, through appropriate demand response products.

Regulation concerning 2G smart metering systems has also been carried out with the definition of the rules for recognising the costs for low voltage electricity metering. In fact, following extensive consultation, the Authority has identified the criteria for recognising the capital costs for the 2G

smart metering systems, based on incentivising regulation schemes. For the three year period 2017-2019 these schemes are only applied to capital expenditure, while from 2020 recognition of the same costs will be based on the total expenditure (*totex*).

As concerns the **regulatory framework for renewable energy**, it should be noted that, over the course of 2016 and downstream of the relevant consultation, the Authority has made some innovations to the *Integrated Text on Active Connections*, in terms of both simplifying the procedures for connecting production plants and the implementation of new information flows in relation to the status of electricity production plants. Recently, the Authority has published the *Report on the state of use and integration of production plants powered by renewable sources and high-yield cogeneration plants*[8], which describes the evolution of the mix of electricity production in Italy, highlighting the increasing dissemination of renewable sources, in particular non-programmable sources, and distributed generation. It also describes the development of the electricity system, in terms of access to the networks, market evolution and dispatching.

On the topic of **tariffs for connection and access to the networks**, certain changes to the process for reviewing domestic tariffs should be noted. The national regulation that transposed the EU Directive on energy efficiency established that the Authority should adjust the components of the electricity tariff, in order to phase out the progressive structure related to consumption (with identification of service cost-associated tariff components), to encourage virtuous behaviour and, finally, to favour achievement of efficiency objectives. Last year's *Annual Report* illustrated the phases of the process that the Authority used to define the gradual pathway for completing the tariff reform, phasing out the current progressive tariff structure by 2018. In the context of the aforementioned three-year pathway, on 1st January 2016 the first step was taken with the redefinition of the tariff prices related to network services (transmission, distribution and metering), in order to increase the fixed charges applied to customers with the D2 tariff (residents and with a contracted power no greater than 3 kW) and to mitigate the progressive structure of the variable charges (expressed in c€/kWh).

On 1st January 2017 the second step of the reform was taken, which firstly involved the adoption of the trinomial and non-progressive structure for tariff prices for network services (transmission, distribution and metering). The prices covering general system charges have been redefined in order to mitigate the effect of progressive consumption and to limit the number of different rates between annual consumption bands to two. Furthermore, the distinction of domestic customers into sub-types defined (for tariff purposes) based on criteria related to the customer's registered permanent address and on the contractually subscribed power has been phased out, only maintaining differentiation between resident and non-resident customers. Finally, with the aim of making it easier for the final domestic customer to optimise their expenditure for the electricity supply, measures have been introduced that provide them with a wider choice, compared to the past, of the level of contractually subscribed power (and the reduction, for 24 months from 1st April 2017, of costs associated with each change to this contractual aspect).

At the end of 2015 national regulations required the Authority to amend, from 1st January 2016, the structure of the tariff components related to general electricity system charges applied to customers of electricity services for uses other than domestic, in order to adapt it to the criteria in force at the same date governing the network tariff for transmission, distribution and metering

[8] http://www.autorita.energia.it/allegati/docs/17/464-17.pdf.

services, this in any case taking into account the various voltage levels and connection parameters, as well as the diverse nature and the peculiarities of the charges in relation to the tariff. In the first quarter of 2016 the Authority therefore initiated a procedure for determining the tariff components related to general electricity system charges for non-domestic users (pending the reform it was decided to apply the components already set for 2016, by way of advance and subject to adjustment) and, in May, it placed the initial guidelines on the methods for implementing the regulatory provisions under consultation.

At the end of 2016 a new national law postponed the commencement date for the provisions related to the general electricity system charges for non-domestic users, from 1st January 2016 to 1st January 2018. The Authority therefore definitively confirmed the previously determined values of the tariff components covering general system charges for non-domestic users, as well as the structure of the general system charges for non-domestic users for all of 2017.

In June 2016 the Authority assessed the progress made towards reaching the milestones related to strategic investments for development of the National Transmission Grid (NTG) for 2015. Therefore, it ordered Terna (the TSO) to pay incentives for the acceleration of investments in fixed assets in progress as of 31st December 2014, relating to investments included under type I=3, to be enforced on the 2017 transmission tariffs.

International coordination

In 2016 the Authority's activities aimed at integration of the Italian electricity market into the European market, as well as those carried out in collaboration with the other European regulatory authorities, mainly concerned investments in new infrastructures and their coherence with EU Development Plans, the allocation of transport rights on a monthly and annual basis, the ID-IA and TERRE pilot projects and the implementation of the European regulation on allocating cross-border capacity on a daily and intra-daily basis.

In terms of **investments in new infrastructures and coherence with EU Development Plans**, the Authority must subject the ten-year NTG development plan prepared by the TSO to consultation by stakeholders, also assessing its completeness and its coherence with EU plans. At the end of this process, the results of its assessment must be transmitted to the Ministry of Economic Development. In November 2016 the Authority formulated its opinion on the outlines of the 2015 and 2016 ten-year NTG development plan and issued the approval of the outlines of the 2015 and 2016 Plan, however imposing certain conditions. Furthermore, the Authority assessed the conformity between the Italian Development Plan and the EU Development Plan (*Ten Year Network Development Plan – TYNDP*), prepared in 2016 by ENTSO-E, the association of European operators, both with its own evaluation of the outline of the 2015 and 2016 plan and with the contribution of the work prepared by ACER. The Authority then collaborated in drafting ACER's Opinion for March 2017, also taking into account, in some cases, the commissioning times envisaged by the outline of the 2016 ten-year development plan, formulating observations and recommendations. In 2016 the Authority also laid out the minimum completeness and transparency requirements for the ten year plan and the minimum requirements for the cost-benefit analysis 2.0.

In September 2016 the Authority approved the *Harmonised Auctions Rules* (HAR) for 2017, i.e. the rules for allocating annual and monthly rights for using the transport capacity on the interconnection network in 2017, an evolution compared to those applied in the previous year. In

summary, the rules require full alignment with the provisions contained in the *Forward Capacity Allocation* regulation for the borders on which market coupling is already active.

During 2016 the Authority also established the regulatory framework for the ID-IA pilot project, prepared with the objective of trialling a solution (intra-day implicit allocation) envisaged by the *Capacity allocation and congestion management guideline* (CACM) regulation. The *Intraday Implicit Allocation* (ID-IA) is a bilateral pilot project for the implicit allocation of the transmission capacity to the Slovenian border (market coupling).

The *Trans European Replacement Reserves Exchange* (TERRE), however, is a voluntary pilot project for the cross-border trading of balancing electricity between TSOs. It was created as a measure for advance implementation of the *Electricity Balancing Guidelines* (EB GL). Partners of the TERRE project include the TSOs of France, Great Britain, Italy, Spain, Portugal and Switzerland, accompanied by the TSOs of Ireland and Greece, as observers. Launched in 2014, in 2016 the TERRE project concluded the planning phase and is therefore about to enter the implantation phase, with the permission of the regulators. The project's operational phase is expected for the start of 2019. In this context, throughout June the partners of the TERRE project transmitted the so-called Approval Package to the regulatory Authorities involved in the initiative. This is a set of documents useful for assessing the overall design of the project. The regulators concerned, including this Authority, worked together to form a Common Opinion, in order to show their support to the initiative and to invite the TSOs to proceed with the next phases of the project. Participation in the TERRE project may lead to a reduction in Terna's requirements of certain balancing resources and enable certain producers to offer balancing resources abroad.

In order to facilitate the procedure for approving the detailed rules (terms and conditions, or methodologies) proposed by the transmission operators (TSOs) and/or by the *Nominated electricity market operators* (NEMO), as envisaged by the CACM regulation, the national regulators have established a platform for this purpose (*Energy regulators' forum* – ERF). Throughout 2016, approval procedures were carried out for: determining the regions for calculating capacity, the Plan for performance of the functions of *Market coupling operator* (MCO), the methodology for communicating data on generation and load, the methodology for the European shared network model.

Over the course of 2016 the Italian Regulatory Authority for Electricity, Gas and Water continued to collaborate with other European regulators at both the multilateral level, through the Agency for the Cooperation of Energy Regulators (ACER), the Council of European Energy Regulators (CEET) and regional initiatives, and through bilateral meetings organised specifically to expand the discussion on issues of common interest. This activity involves the establishment of transparent and effective rules for the promotion of a competitive and efficient integrated European energy market, as required by the Third Energy Package. Furthermore, as in previous years, the Authority continued to provide impetus to its own international commitment, maintaining its dialogue and multilateral and bilateral institutional cooperation, to promote the harmonisation of European rules with those of countries that, although not part of the European Union, are important interlocutors in the energy sector. In particular, it promoted actions to strengthen its role as a key regulator in the Balkans and in the Mediterranean basin, which represent geographical areas of prime importance for the Italian energy system.

Wholesale and retail markets

In 2016 **electricity demand** fell by 2.1% compared to the previous year, according to provisional data from Terna, decreasing from 316.9 TWh in 2015 to 310.3 TWh in 2016. National production, which rose by 1.2%, covered a share of the total national requirement of 89% (against 86% in the

final balance for 2015). Imports decreased significantly compared to the previous year, declining from 50.8 TWh in 2015 to 43.2 TWh in 2016, thereby recording a fall of 15.1%; conversely exports, especially to Greece and Malta, increased by 37.7%, reaching 6,155 GWh in absolute terms.

After years of continued reductions, for the second consecutive year **gross domestic production** increased, rising from 283 TWh in 2015 to 289.3 TWh in 2016 (+2.2%). Thermoelectric production contributed to this increase, which grew by approximately 4% compared to the previous year. Natural gas saw the most marked increase (+13.7%), while the use of coal (-17.6%) and oil products (-26.6%) both significantly decreased. Thermoelectric production satisfied the increase in domestic demand, even against the decline in imports from France in the last quarter, caused by the unavailability of approximately a third of the nuclear generation facility, located north of the Alps, in that period. Thermoelectric production also coped with the further reduction in production from renewable sources (-1.1%), although much more contained compared to previous years. As a result of these dynamics, in 2016 thermoelectric covered 62% of total production, while renewable sources accounted for the remaining 38% (this was 39% in 2015 and 43% in 2014).
While overall production from renewable resources declined, as mentioned above, within this group the growth of wind energy (+19%) was, however, decidedly significant, while both hydroelectric (-7.2%) and photovoltaic (-3.7%) production decreased compared to 2015.

In Italy electricity generation plants powered by renewable resources benefit from various incentive mechanisms that use different methods. The incentive instruments enabled incentives to be applied to a quantity of electricity that stood at around 66 TWh in 2016 (65 in 2015). Overall, for 2016 it is estimated that, at the final balance, the costs deriving from incentives on renewables sources amounted to approximately 13.6 billion euros (12.5 in 2015).

With the exception of Enel, whose market share decreased slightly, all of the other most important company groups in Italian electricity generation showed stable or increased market shares compared to the previous year. In particular, the most significant increase was seen for Edison (whose market share rose from 6.5% to 7.9%) and for A2A (increased from 3.0% to 5.1%), therefore entering the list of company groups with at least 5% of net generation. The increase recorded for A2A occurred thanks to the take-over of Edipower, whose plants were entirely transferred to the Milanese group from the start of 2016. More precisely, after A2A purchased the entire share capital of Edipower, the latter, in July 2016, transferred all of its 5 plants to two companies in the A2A group. Finally, at the end of the year, Edipower was incorporated into A2A.

The reduction in internal demand and the block on the French nuclear plants in the last part of the year are behind the strong decline (-20.2%) recorded by **net electricity imports** in 2016. In fact, in 2016 the external balance reduced by 9.4 TWh, stopping at 37 TWh against the 46.4 TWh recorded in 2015.

In 2016 the quantity of electricity traded in the Italy System was equal to 290 TWh, substantially stable (+0.6%) compared to 2015 (286 TWh), thereby confirming the end of the downward trend observed between 2010 and 2014. The **volumes traded on the Power Exchange** are recovering, having increased to 203 TWh (+3.9%), which is the highest level in the last seven years, excluding the peak in 2013. The opposite trend can be seen in the programmes derived from the recording of over-the-counter bilateral trades on the Energy Accounts Platform (PCE), which fell to 87 TWh (-6.4%), close to the historic low seen in 2013. In 2016 the Italian Power Exchange recorded the lowest **average energy purchase price (national single price - PUN)** in history, equal to 42.78 €/MWh, a decrease of 18.2% compared to the previous year. This fall was consistent in all hour groups, standing at the historic lows of 48.34 €/MWh and 39.85 €/MWh in peak and off-peak

hours, respectively (approximately -18% in both hour groups), and 38.55 €/MWh in holiday hours (-17.6%). As regards the volumes traded on the northern border, in 2016 market coupling allocated, on average, a capacity of 2,364 MWh each hour, of which 1,729 MWh on the French border (-4.6% compared to 2015), 184 MWh on the Austrian border (-2.7% compared to 2015) and 451 MWh on the Slovenian border (+1.0% compared to 2015), with an overall energy flow mainly in import.

The **number of end market sellers** grew in 2016 by 61 units due to the entry of new actors originating from associated sectors (for example gas sales), but also from other sectors. The expansion trend that has endured almost continuously since 2008 in the selling sector was therefore maintained. Out of the 402 active companies, 39% sold electricity in a number of regions between 1 and 5; 67 companies, equal to 16.7%, sold electricity throughout the entire country; the remaining 178 companies (44.3%) operated in a number of regions between 6 and 19. In 2015, 15.7% of the 370 active sellers operated throughout the entire country, while 43.8% had a sales territory limited to 5 regions. The foreign presence (at least with reference to direct first level shareholding) is scarce: only 8 companies (out of the 390 that provided these figures) have a non-Italian majority shareholder. Foreign direct participants are mostly Swiss, Luxembourg or German.

The results of the Annual Survey (as usual, to be considered as provisional for 2016) show that last year a little over 250 TWh were sold to the end market to approximately 37 million customers. Overall, energy consumption reduced by 2.1% compared to 2015, while consumers increased by 0.6%. As has now been happening for several years, the **enhanced protection service** was further restricted: in fact, the overall decline in final demand had a greater impact on this service than it did on the free market, which maintained, at least in terms of customers; conversely, the safeguarded service expanded considerably once more; consumption in the domestic sector fell by a greater amount (-3.5%) compared to consumption for production use (-1.7%).

In an end market that declined by a total of 5.3 TWh, the sales volumes of the protected market reduced by 4.2 TWh (-7.4% compared to 2015), while the free market lost only 1.5 TWh compared to the previous year (-0.8%); in the safeguarded regime, however, sales grew by 0.4 TWh. **The movement of domestic consumers to the free market also continued in 2016.**

In 2016, the total number of domestic withdrawal points increased by approximately 175,000 units, but the protected market lost 683,000 of these units compared to 2015, while the free market recorded an increase of 869,000. The average consumption per unit for families in the protected market is lower compared to that for families who purchase energy in the free market: 1,787 kWh/year against 2,148 kWh/year. However, both of these values are lower than those of the previous year: by 82 kWh in the enhanced protection service and by 108 kWh in the free market.

As in 2015, the **safeguarded service** also expanded in 2016, after years of decline: energy sold rose by 10.7% (+0.4 TWh), although the increase was lower than that of the previous year, when it rose by 17.4%; the number of customers served increased by approximately 5,000 units. These increases are almost entirely attributable to customers connected to the low voltage network and among these, in particular, public lighting. In 2016, the electricity provided on the **free market** fell slightly: in fact, with 193.7 TWh sold, the level of sales decreased by 1.5% compared to 2015. The total number of customers served, however, grew by over one million units, more in the domestic sector (+9.2%) than in the non-domestic sector (+6.6%). Average consumption per unit therefore fell by a further 9%, as has now been happening for many years. This continued decrease is partially due to the entrance of domestic consumers into this market, typically characterised by

average withdrawal levels lower than those of non-domestic consumers (and increasingly lower over time), but it is mainly explained by the fall in non-domestic consumption.

This year, for the first time, the *Annual survey on regulated sectors* asked several questions to electricity and natural gas sellers aimed at assessing the quantity, the types and the methods used for the offers that companies provide to customers who have chosen to be supplied by the free market. For this reason the results presented in this report should be interpreted with extreme caution. Despite this, it emerged that: the average number of commercial offers that each supplier is able to offer to their potential clients was 9 for domestic customers and 26 for non-domestic customers. Of the 9 offers available, on average, to domestic customers 5 can only be purchased online, but, for now, this type does not seem to have gained much interest from families, who chose it in only 13.5% of cases. As regards the preferred type of price, it emerged that 85% of families signed a fixed price contract in the free market (i.e. with a price that remains unchanged for at least one year from the time of signing), while only 15% chose a variable price contract, i.e. with a price that changes at the times and in the ways established by the contract itself.

Therefore, overall in 2016 the protected market acquired 21% of all of the energy sold to the end market (against 22.5% in 2015), the safeguarded service absorbed 1.7% (against 1.5% in 2015) and the free market acquired 77.3% (against 76.3% in 2015). In terms of withdrawal points the ratio tends to be the reverse: 62.6% of customers are still served under enhanced protection, while 37.1% have moved on to the free market.

The **dominant player** of the entire Italian electricity market remained the Enel group, this year with a market share that has risen to 35.5%, still distant from the next group down, Edison. In 2016, the market share of the latter also decreased by two percentage points compared to that of 2015, halting at 4.7%. In third place, as always, we find the Eni group with 4.3% (approximately the same percentage as last year). The Enel group maintains its position in the total market thanks to its substantial dominance of the so-called mass market, made up of the domestic sector and by non-domestic customers connected to the low voltage network: over half of this market – 54.7% to be precise – is in fact served by Enel, while Eni, in second place, has a share of 4.1%. In any case in 2016 Enel has gained first place once again, which it lost in 2013, including in the segments of non-domestic customers connected to the medium and high/very high voltage networks. In 2016 the concentration level of the total market remained substantially unchanged: the top three operators (company groups) cover 44.2% of overall sales (this was 44.3% in 2015); however, the HHI index increased slightly from 1,270 to 1,375. As was the case in the previous year, 17 groups were needed to exceed 75%

2016 also was marked by intense **switching**. Altogether, more than 3.7 million customers (184,000 more than in 2015), i.e. 10.1%, switched over to a new supplier at least once in the course of 2016. In terms of volumes, they correspond to almost 24% of the total energy distributed. More specifically, in 2016, the following switched to a new supplier: 8.7% of families (or over 2 million and 500,000 supply points), corresponding to an energy share of 10.2% with an increase, compared to 2015, of over 500,000 withdrawal points; and 15.4% (i.e. just over 1.1 million) of non-domestic customers connected at low voltage, corresponding to a share of energy equal to 15.6%; these customers were a little less dynamic compared to the previous year, when they changed supplier around 8,000 more times.

The **average price for domestic consumers** amounted to 211.9 c€/kWh (of which 97.9 cents is the energy supply cost). The prices charged to domestic customers according to consumer class show values ranging from a minimum of 186.7 c€/kWh for the 1800-2500 kWh/year class, to a maximum of 384.1 c€/kWh for the smallest class (0-1000 kWh). The price decreases with

increasing customer size up to the third class, to then rise for bigger customers, with the exception of the highest class whose value is slightly lower than the previous. Therefore the characteristic 'U-shaped' trend that emerged in previous years is no longer recorded. This is attributable to the implementation of the first phase of the network tariff reform, aimed at gradually phasing out the progressive structure of the tariffs themselves. The supply cost, however, as is to expected, decreased continuously with increasing amplitude of consumption. The electricity prices paid in the market by customers that signed up for a dual fuel contract were almost invariably less convenient than buying electricity with a specific contract, but the number of these customers and the energy purchased from them was decidedly lower.

There were 25,349 **complaints, reports and information requests** relating to the electricity sector (about 65% of the total), with a further decrease compared to 2015. There were very mild changes in terms of the proportions between complaints and information requests, which, in absolute terms, increased slightly. The most frequent topics of the communications received were contracts, the market, billing and the bonus.

Developments in the gas market

Major regulatory innovations

A measure adopted jointly by the Italian, Greek and Albanian regulators saw the **certification of TAP AG** as the independent natural gas transport operator for the TAP pipeline, pursuant to Art. 10 of Directive 2009/73/EC of the European Parliament and the Council of 13th July 2009 and paragraph 4.5.2 of the *Energy Regulators Joint Opinion on TAP AG's Exemption Application*. With the definitive decision, regulators, on the basis of additional elements provided by TAP AG, confirmed what had already been foreseen in the preliminary decision (taken in 2005), i.e. they certified TAP AG on the basis of both the independence requirements laid down in Directive 2009/73/EC and the commitments undertaken by said company, which provide for the gradual fulfilment of all the other independence requirements by the definitive date for the start of commercial and management activities of the infrastructure.

In 2016, the **natural gas balancing rules** underwent a thorough reform that led to the definition of the transition between the old regime, defined in 2011, and the new model, in force since 1st October 2016, which fully transposed Commission Regulation (EU) 312/2014 of March 2014, setting up a Network Code for balancing gas in transport networks. For the first phase of the reform, please see last year's *Annual Report*. First of all, the Authority has taken steps to resolve contractual congestion at the storage entry and exit points, which is a prerequisite for assuring liquidity to the new market, especially in the Italian context where storage is the main source of intra-day modulation. This was followed by the finalisation of the Codes of transport, storage and regasification companies, as well as the approval of the scheme of agreements between Snam Rete Gas and the *Gestore dei mercati energetici* (GME, Energy Markets Operator), which are functional to the management of the day-ahead market and the intra-day market. The pre-existing PB-gas market platform has been maintained on a transitional basis and with a different function, i.e. no longer as a balancing tool, but as an organised market for gas in storage trading.

Regarding the **quality of the natural gas transport service**, in July 2016 the Authority made some changes to the regulation - valid for the four-year period 2014-2019 and with effect from 1st January 2017 - on the provision of technical data required by the seller. Regarding the **metering** of natural gas, the Authority outlined possible actions and corrective actions aimed at both removing

incentives for using estimated readings and inducing the distribution companies to read the actual metering data.

With regard to **access to the transport service**, the Authority introduced some changes to the system of managing deviation between the capacity allocated and the capacity used at the interconnection points with foreign gas pipelines. This is to bring the system into line with current allocation procedures, allowing users to book products of less than a year's capacity. It also completed the implementation of the European provisions for the management of the so-called 'contractual congestion' at the points of interconnection of the national gas pipeline system with abroad. In particular, the provisions regarding the non-systematic use of the capacity assigned at points where the national gas pipe line system connects with abroad have been updated and the use-it-or-lose-it mechanism was introduced on a day-ahead basis, as a means of resolving contractual congestion. Finally, in 2016 a pilot project for the reform of the regulation on capacity allocation was initiated at the redelivery points in the gas transport network that supply electricity generation plants. The experiment aims at achieving more flexible and efficient allocation to electricity generation plants, which are particularly critical to the predictability of the gas utilization profile, especially due to the significant development of renewable sources.

As has been the case for some years, even during the 2016-2017 thermal year, **storage capacity was allocated** on the basis of market criteria. But once again, the European and national market situation has been characterised by very low seasonal differentials and, at least in the first part of the summer semester of 2016, such as to make purchasing storage capacity an opportunity for operators and not a necessity. This is because of the availability of winter gas at slightly higher prices than summer gas. This situation, which undermines the ability of storage companies to generate revenues, also required, in 2016, the definition of a sterilization mechanism of financial impacts on storage companies resulting from auctioning procedures for the allocation of storage capacity.

In view of the storage capacities (more than 2.5 billion cubic meters) that became available following the 31st March 2016 deadline for the five-year storage contracts signed pursuant to Legislative Decree no. 130, the new developments introduced in 2016 in the field of the uniform service have been also confirmed for 2017, namely: the offer of an integrated regasification and storage service and the use of market benchmarks instead of tariff ones for the auctioning of storage capacity on a multi-year basis. The integrated regasification and storage service is designed to facilitate the import of LNG in the summer by providing the required storage capacity for the corresponding volume of gas until the following winter for those who require it.

Finally, the Authority established the criteria for carrying out procedures for the allocation and transfer between users of storage capacities for periods of or less than one month. From 1st October 2016, these provisions, consistent with the launch of the new balancing regime under Regulation (EU) 312/2014, introduced both a day-ahead market for the allocation of continuous and interruptible storage capacities and the possibility for users to resort to overnomination of the storage during the gas day.

At the end of 2016, the Authority threw its guidelines on the introduction of market criteria for the **allocation of regasification capacity** open to consultation. In particular, the introduction of market mechanisms based on auction procedures for the allocation of both long and short-term regasification capacity was proposed; in addition, the first assessments on more efficient auction mechanisms for the allocation of different capacity products, as well as on the criteria used for defining the reserve prices to be associated with the said products, were illustrated.

Regarding the **safeguarding of the gas system**, the Authority has implemented the provisions of the Government on management and supply by the regasification terminals of the quantities of LNG to be stored and made available in the so called 'peak shaving service'. This measure addresses any system emergency situations by determining base auction prices based on the cost-opportunity for a user to provide gas to immobilise in regasification tanks and to use in case of system crises.

The procedure initiated at the beginning of 2016 for the updating of the **Tariff regulation for gas distribution and metering services** for the three-year period 2017-2019 mainly concerned the following aspects: the review of the component covering the costs of metrology checks on metering tools; the determination of the components covering the centralised costs of remote metering/remote management and the costs of the concentrators; the definition of the standard costs inclusive of the installation and commissioning costs to be applied to the metering units. In the November 2016 consultation, the Authority's guidelines on these issues and the results of a collection of data relative to the costs of remote metering and remote management and the costs of the concentrators for 2010-2020 were illustrated.

The process of the **calls for tenders for the assignment of the natural gas distribution service** at the Optimal Territorial Area level has begun. Regarding the measures adopted by the Authority in 2016 on this subject, it is noted that they mainly concerned the checks of the deviations between the residual industrial value of the plants (VIR, valore industriale residuo degli impianti) and the regulatory asset value (RAB) and the analysis of the tender documentation sent from the contracting stations.

International coordination

With regard to investment in new infrastructures and consistency with the **European Community Development Plans**, the Authority has adopted the provisions for consultation of the schemes of the Ten-Year Plan for the development of the natural gas transport network set up by the network operators. The consultation was concluded on 15th February 2017. The comments received from the interested parties were forwarded to the operators for their analysis and evaluation. Snam Rete Gas, in co-ordination with the other operators, prepared a statement of objections which was presented on 31st March 2017. Plans, observations and objections were published on the Authority's website.

In 2016, the Authority actively participated in the ACER Working Groups responsible for infrastructure management and Network Codes implementation, with particular reference to the analysis of the best indicators of contractual congestion on interconnection points; in the Opinions on the analyses prepared by ENTSO-E in the Winter and Summer Outlook; in the Opinion on the making of investments in gas transport infrastructure and on the coherence between the Ten-Year Development Plan at European level and National Plans. In addition, the Authority participated, contributing with the provision and validation of the data and information in its possession, in the monitoring activities that in 2016 resulted in the publication of various reports.

In the framework of CEER, the independent council of national European energy regulators, the Authority has participated in the drafting of a document containing the guiding principles for defining the national security objectives and strategies for supply security.

In 2016, the Authority has also contributed to the implementation of the Treaty establishing the Energy Community of South East Europe and has maintained its international commitment to the Mediterranean Basin, in particular through MEDREG, of which is a founding partner and promoter.

Wholesale and retail markets

In 2016, there was a strengthening of the economic recovery, while the climate was similar to that of 2015, the year that was warmer than the norm. The most gas-intensive industries showed differentiated results: production in metallurgy increased sharply (+ 3.6%); plastics manufacturing and processing of non-metallic minerals increased by 2.1%; an increase of 1.4% occurred in the manufacture of chemicals; while wood, paper and print production declined by 0.9%

Last year the **gross domestic consumption of natural gas**, according to preliminary data released by the Ministry of Economic Development, increased by about 3.4 G(m^3), rising to 70.9 G(m^3) from 67.5 G(m^3) in 2015. In percent terms, gross consumption grew by 5% compared to 2015. Consistent with economic and climate trends, industrial consumption in 2011 was up 7.3%. Even higher growth, equal to 8.4%, was also seen in the consumption of thermoelectric generation, favoured in the last quarter of the year by the temporary unavailability of about a third of the French nuclear power plants that reduced imports of electricity from France. More contained, on the other hand, has resulted in the increase in civil (residential and tertiary) consumption, which compared to 2015 grew by 1.7%.
So 2016 is the second consecutive year of recovering in the end demand that has returned to the levels of 2013 and reached 80% of the peak touched in 2005.

The growth in end demand was accompanied by an adequate increase in **net imports** (6.6%). The volume of imported gas from abroad has grown by 4 G(m^3) compared to 2015, reaching 65.3 G(m^3); conversely, exports fell by 9 M(m^3). However, the downward trend of **national production** (-14.6%) continues, especially in the last year. Approximately 81.5% of all domestic production is extracted by Eni Group companies, the dominant operator in this segment with a wholly majority share and a long way ahead of the second Royal Dutch Shell Group, which has 8.3%. The share of the latter - unlike the latest years - has declined compared to last year, not least because production for this group fell by 34%, more than the average. Since, as we have seen, increased domestic demand has been met by higher imports, **the level of dependence from abroad**, measured as the ratio between gross imports and gross domestic consumption, rose to 92.1%, the highest recorded value so far.

Compared with 2015, imports from Libya (-32%) and Northern Europe (-60% from Norway, -55% from Holland and -2% from Russia) decreased, while those coming from Algeria (+ 150%) strongly increased, with a small increase also in imports from Qatar (+ 1%). Algerian pipeline exports to Italy after a few depressed years started in the spring of 2013, have started to grow again since the last quarter of 2015 due to the gradual operational recovery of the fields that had been damaged in that area and the renegotiation of several long-term gas supply contracts, which has allowed more flexibility in volumes and price dynamics more aligned with the market conditions (the latter have strongly changed since the pre-crisis period). As in previous years, groups that each own a share of more than 5% of the total gas supplied (i.e. produced or imported) are Eni, Edison and Enel. Together, the first three importers imported 87.2% of the gas entering the Italian market. Considering the quantities produced within national borders as well, the three groups account for 87.3% of all gas supplied. As in the past, this share is on the rise (it was 86.5% in 2015), for the increase in Edison and Enel's shares not being offset by the decline in Eni's share. The three groups are also the only ones each owning a share greater than 5% of available gas, with an overall share of the three (88.8%) higher than that of the gas supplied. As far as the residual life is concerned, import contracts in place until 2016 are still relatively long, but contractual structure proceeds very slowly, shortening from year to year: 58.9% of contracts (56.2 % In 2015) will expire

within the next ten years and 42.2% of them (35.8% in 2015) will lose their effect within the next five years. 34.5% of contracts currently in force have a residual life of more than 15 years (35.8% in 2015).

In 2016 **total gas demand** was 266.9 G(m^3) understood as the sum of the gas volumes sold on the wholesale market (including resale) and retail plus self-consumption, with an increase by 9%. The wholesale market has traded 195.5 G(m^3) up on 2015 (10%), of which 57.4 G(m^3) in the retail market, with a growth by 6.9% compared to 2015, and self-consumption also had an increase (7.2%) with 14.1 G(m^3). Industrial groups that in 2016 had a market share of more than 5% numbered four, as in 2015.

Unlike the most recent years, in 2016 the number of companies operating in the **wholesale market** did not increase, while the volume of gas they traded overall grew. Indeed, 193 suppliers, six less than 2015, sold nearly 18 G(m^3) more than 2015. In 2016, as in 2015, the concentration of this market has declined; in practice, not considering the mild upward trend recorded in 2014, the concentration of the wholesale market is steadily declining. In 2016 the share of the first three companies (Eni, Eni Trading & Shipping and Enel Trade) dropped to 30.8% from 31.4% in 2015. Similarly, the cumulative share of the top five companies dropped from 46.1% to 45.6% - the three already mentioned above plus Engie Global Markets and Edison. Obviously also the HHI index calculated on the wholesale market declined from 2015, from 560 to 525. In 2016, the average price on the wholesale market was 18.98 c€/m^3, higher than the 16.75 c€/m^3 of PSV (source of data: Platts), but sharply decreasing (-24.7%) than the value observed in 2015, equal to 25.22 c€/m^3.

The main trading platform in the wholesale market in Italy is the PSV (*Punto di Scambio Virtuale*, or Virtual Trading Point), managed by the main transport network operator, Snam Rete Gas. Since September 2015, it has also been possible to register contracts managed by third-party stock exchanges at PSV. Gas trading platforms that offer products with physical delivery to the PSV are ICE Endex and PEGAS of the EEX group managed by Powernext. With the full implementation of the UE balancing Guidelines, PB-GAS activities have been suspended from 1st October 2016 in favour of a balancing system that makes all the available flexible resources such as stocking, importing or regasification of LNG compete over the day. In addition to the existing MGP-GAS and MI-GAS, two new spot products markets useful for balancing activated on 1st October 2016: the **Market for the trading of gas stored** (MGS) and the Locational Products Market (MPL) which takes place in the manner of an auction trading and only at the request of Snam Rete Gas. In this market, Snam Rete Gas is supplied by users who are qualified for the quantities of gas needed to handle localised physical needs within the balancing zone or any deviations expected between the total inputs and withdrawals of the network.

Within **gas markets managed by GME**, total volumes of 47.5 TWh were traded in 2016, in line with those recorded in 2015 (-3%). There is, however, a profound change in the breakdown of these volumes on the various platforms since the last quarter of the year, coinciding with the implementation of the new gas balance system. In particular, the reduction in volumes on the G+1 and G-1 balancing platforms, which stayed active up to the third quarter of 2016, was accompanied by a sharp increase in trade in the last quarter on MI-GAS, MGP-GAS platforms and the new MGS segment. The launch of the new balancing market has also restored MGP-GAS trading, which has been inactive since 2013. The increase in liquidity was also significant on MI-GAS as well.

The provisional results of the Survey on the electricity and gas sectors, conducted annually by the Authority, show that in the 2016 57.4 G (m3) were sold on the **end market**, to which 152 M(m^3)

are to be added supplied by the last resort and default services. Overall, the value of final sales is 57.5 G(m^3), up 3.5 billion from 2015. To have a comparable figure with that of final gas consumption published by the Ministry of Economic Development mentioned above, however, the volumes for self-consumption, above 14 G(m^3), should be considered, which bring the total consumption recorded in the annual survey to 71.65 G(m^3), i.e. to a value comparable to the 70.9 G(m^3) reported by the Ministry. The two sources classify volumes of gas handled in the year differently. The volume of self-consumption is rather higher than in 2015: about 7% in terms of volumes and 28% in terms of withdrawal points. This item has a strong incidence in electric generation (88.5% of self-consumption belongs, in fact, to this sector). The rise in final consumption, which is significant in both the annual and ministerial data, is closely linked to the growth of production sectors, while in 2016 civilian consumption has declined slightly.

The significant increase in sales on the end market was accompanied, as usual, by the increase (+15 units) of the number of suppliers active in this segment of the chain: from 378 operators in 2015, it rose to 393. The upward trend, also observed in the electricity market, in the number of suppliers. The 9.9% (i.e. 39 entities) of the 393 active suppliers who responded to the Annual Survey serves clients throughout the country; 63.4% of businesses (249) sold electricity in a number of regions between 6 and 18; the remaining 105 enterprises (26.7%) operated in a number of regions between 1 and 5. The number of companies operating across the national territory is constantly increasing (in 2014 they were 7%, in 2015 they were 8.4%). The corporate composition of the share capital of gas suppliers shows a low foreign presence: only 11 companies (out of the 386 that provided these data) have a non-Italian majority shareholder. Foreign direct shareholders are mostly Swiss or German companies, but there are also Luxembourg, Austrian and Spanish companies. In 2016, the level of concentration in the end sales market, which has been steadily decreasing for years, has returned slightly to rise compared to 2015. The first three groups control 47.5%, while the previous year their share was 44, 9%. Considering the top five groups, the market share served rose to 55.2% (compared to 53% in 2015). The HHI index calculated on the market was 881, stable compared to that of 2015, which was 882. Additionally, in 2016 the weight of the Eni Group fell by nearly two and a half times since 2015 and the distance with Edison, back in the second group (in 2015, third place behind Enel), was considerably shortened, dropping to 6.8 percentage points against 13.1 in 2015.

Overall, gas quantities have increased compared to the previous year in each sector, with the exception of the household. 2016 was slightly warmer than 2015, and this is why civilian consumption spikes did not show a drop in the household sector by 2.4% and residential central heating consumption by 3.6%. The trade and services sector shows a slight increase of 2.4%, and public service activities rose by 5.8%. High growth also appears in the thermoelectric generation (17.4%), driven by low gas prices, and in the latter part of the year driven by increased gas demand to offset decrease of electricity imports from France. The slight recovery in the manufacturing sector has led to an increase in industrial consumption of 5.4%. The said variation rates improve, with the exception of household central heating and industrial sectors, since if only sales on the **free market** are considered, they are 12.5% higher than in 2015, while those in the tertiary sector show a variation of 2.7%, thermoelectric products increased by 29.3%, and sales to public service activities rose by 6.1%. Based on volume growth, there is also a significant increase in free market customers, totalling almost one million redelivery points (+ 11.7%), followed by the already significant figures recorded in recent years (+1.4 million in 2013, +1.3 million in 2014 and +1 million in 2015). In 2016, however, the free market showed a significant loss of both customers (-23.4%) and volumes (-11.4%) in respect of household central heating, while in the reference price market they grew spectacularly (+ 53.4% customers and + 21.4% volumes).

The picture changes completely if, on the other hand, the reference price market data are observed, where both customers and volumes are recorded, with the exception of residential central heating. This is because the gradual expulsion of all non - household customers from the protection market is on its way to completion, as provided by the law.

The proportion of volumes purchased on average on the free market is 67%, that of the reference price market is 13%, while 20% is self-consumed. If sales are considered strictly (and thus excluding self-consumption), 83.4% of the gas is purchased on the free market and the remaining 16.6% on the reference price market. In terms of customers, 58.2% buy in the reference price market, while 41.8% buy in the free market.

Also in the gas sector, as has been described for electricity, the Annual Survey has submitted some questions to natural gas suppliers to assess the quantity, types and ways of supply that companies make available to customers who chose to buy in the free market. Taking into account the due caution needed in interpreting the results, it was found that: the average of the commercial offers that each supplier can offer to its potential customers was 8 for customers, 7 for central heating in residential buildings and 26 for non-household customers. Of the 8 offers made on average available to the household customer, 4 are only online, but this type of offer does not seem to have raised, for the time being, a large in interest in household customers, who have chosen these offers only in 15.3% of cases. About the preferred price type, it turned out that 68.8% of households subscribed fixed price contracts in the free market (i.e. at a price not changing for at least one year from the date of subscription), while the 31.2% chose variable price contracts, i.e. with the price that changes with the times and modes set by the contract itself.

The percentage of **switching**, i.e. the number of customers who changed supplier in the 2016 calendar year, totalled 6.6% or 50.8% when evaluated according to the consumption of the customers who made the change. Changes in household consumer suppliers in 2016 are still not particularly high but steady or rising for several years.

The provisional analysis of data collected in the Authority's Survey on 2015 shows that last year the **average gas price** (weighted with the quantities sold), net of taxes, carried out by the end market sales companies, was 33.8 c€/m^3. This price in 2015 was equal to 38.9 c€/m^3. The decrease involves significantly (around 4 c€/m^3) all dimensional categories of customers. The class that showed the largest decrease (in absolute terms (-4.7 c€/m^3) and relative terms (about 18%), is that of the consumption of more than 20 million cubic meters. This has contributed to widening the price gap between smaller and larger customers, which in the five-year period went from 23.5 to 30 c€/m^3.

Claims, reports and information requests related to gas were 13,522 (about 34%). Compared with 2015, the number of communications has therefore undergone a very slight reduction. Always compared to the previous period, there are no significant differences in the ratio between the number of enquiries and complaints. The most frequent communications topics were billing, bonus, market and contracts.

Consumer protection

The Legislative Decree no. 21 of 21st February 2014, transposed Directive 2011/83/EU on consumer rights, which incorporates and amends certain provisions of the Consumer Code, with regard to the conclusion of contracts between suppliers and consumers, in the event that these contracts are concluded at a distance or out of business premises. In 2015, the Authority therefore

adapted the provisions of the Commercial Code of Conduct to the amendments to the Consumption Code concerning pre-contractual obligations to suppliers and how to exercise the cooling off period by the household type end customer. The Code of Business Conduct has also been amended in 2016 in the part dealing with **information obligations to be fulfilled by the suppliers**. In particular, it was agreed that customers have to be informed of the availability of free conciliation procedures and, to a limited extent, the list of authorised bodies. Such information must be provided through the contracts, the supplier's website or the responses of the latter to the claims. Complaint responses must also indicate the automatic compensation that may be due to the customer.

In 2015, the Authority established, just for the electrical sector, that since 1st June 2016 all operations to switch to a new supplier must be carried out centrally through the Integrated Information System (SII), the national database started to make exchanges of information between the operators in the sector more transparent and efficient. From that date, the supplier may no longer deal with individual distributors but with the Integrated Information System, through which it can accomplish the task faster and more easily. In April 2016, the Authority adopted further functional provisions for the implementation of this reform in the electricity sector and the reduction in the timing of switching in the gas sector.

With regard to the protection of consumers in the electricity sector, in 2015 the Authority initiated a process for the definition of a reform path (so called Roadmap) with the overall objective of developing an efficient electricity retail market, through the consolidation of the free market supply, as the only ordinary mode of supply for small customers (household and small customers). In accordance with the principle of proportionality, the measures have been calibrated to take into account the actual capacity of small customers to evaluate the offers on the market and the evolution of that capacity over time.

The Authority's intervention is thus twofold. The first line of action envisaged the reform of the enhanced protection service in order to make it more coherent with the role of universal service that it is intended to assume, with the establishment of the market as the only normal mode of supply of electricity for the generality of customers. This required a reassessment, among other things, of how to determine the economic conditions of the most-favoured-nation service, in particular as regards the charges to cover the costs of supply[9] and the marketing costs for which it is reasonable to expect - once the largest protection service evolves, assuming the universal service connotation used by an ever-smaller number of customers - that unit values per customer increase compared to the current ones, moving away from the price conditions that customers normally have access to taking advantage of the free market.

The second line of intervention is aimed at supporting the ageing of the retail market in the small customer segment by facilitating access to the market by a 'guided and supervised' protection mechanism by the Authority with the overcoming of the current alternation between the enhanced protection service and the free market; two initiatives go in this direction:

- the introduction of *TUTELA SIMILE*, i.e. a contract similar to a free market supply, but with conditions (not price) set by the Authority;

[9] These costs are determined by the Authority at the end of each quarter for the following quarter and, therefore, are necessarily based on the estimation of supply costs by the Single Buyer, inclusive of any hedges against the volatility of electricity wholesale prices.

- the exposure of orientations on free price offers under equivalent protection conditions, i.e. future PLACET offers, that sellers will be required to offer to customers.

To conclude a project aimed at simplification and greater flexibility and transparency, the **Bolletta 2.0** came into force on 1st January 2016. Its features were presented in the Annual Report of last year. In 2016, the Authority has completed the process of billing consumption to - customers in the electricity and natural gas retail market, in spite of the critical points emerging on this subject.

The Authority initially intervened to regulate the **closing bill**, which records the consumption up to the last day of the contractual relationship, in cases where the relationship itself ends; subsequently it regulated **periodic bills**, issued during the contractual relationship between the supplier and the customer. With this latter measure, the Authority has approved *the Integrated Text of the Italian Regulatory Authority for Electricity, Gas and Water for billing the retail sales service for electricity and natural gas customers* (TIF). With TIF, the Authority intended to define a single text containing all provisions relating to retail invoicing, which suppliers are required to comply with within their contracts with their customers in the protection schemes and / or in the free market and under contracts under *Tutela SIMILE*.

As regards the so-called "**Period billing**", the TIF defines, for each sector and for each type of customer, the frequency of issuing ordinary invoices, while at the same time enabling the free market supplier to modify this, but only upwards. In addition, a time constraint on invoicing was introduced, equal to 45 days from the last billed day of consumption, a constraint that may be different in the free market. Similar to what is required for closing invoices, the obligation for the supplier to comply with a given order of priority in the use of measurement data in invoices is also mandatory for period billing in order to minimize the deviation between actual consumption and estimated consumption. However, the supplier will have to issue an invoice based on actual consumption at least once a year and will be able to bill the consumptions after the invoice date provided that adequate information is given to the customer. The use of self-service for customers in both sectors that do not have remote managed meters has been encouraged by introducing the obligation for all suppliers to acquire it and providing specific ways for the end customer to become aware of the opportunity to make use of the same.

The Authority also envisaged, in favour of the customer, new compensations :

- for suppliers, in case of issue of the invoice for a period beyond 45 days from the last day of consumption invoiced;
- for distributors, where measurement data has been estimated for two consecutive months for customers with remotely managed meters.

Along with TIF, the Authority has introduced specific obligations regarding metering and **payment by instalments**. These obligations and the TIF entered into force on 1st January 2017, with the exception of certain provisions for which a different timing is envisaged.

For the **management of disputes in Italy**, since 2012, the **Energy Customers' Conciliation Service** managed by the Single Buyer and operating, in the experimental phase, from April 1st, 2013, which has been in effect since January 1st, 2016. The Conciliation Service is a voluntary alternative dispute resolution procedure that can be activated by end-users of electricity and natural gas for any problems that arise (which do not concern with tax and tax profiles) with energy operators

(dealers and distributors), in case of failure or unsatisfactory response to the complaint. The procedure takes place entirely on line and in the presence of a third party, impartial, mediation expert, and through special training and updating meetings organized periodically by the Authority in collaboration with the Single Buyer. Any final agreement has a transactional effect between the parties pursuant to art. 1965 of the Italian Civil Code.

Concerning its characteristics, the Conciliation Service is already in line with EU Alternative Dispute Resolution (ADR) legislation, lastly with Directive 2013/11/EU of the European Parliament and of the Council of 21st May 2013 on Alternative Dispute Resolution Consumer disputes, amending Regulation (EC) 2006/2004 and Directive 2009/22/EC.

The experimental phase of the Conciliation Service ended on December 31st, 2015. Therefore, at the end of 2015, the Authority approved a three-year project, with effect from 1st January 2017, for the continuation of this service which, compared with the previous phase, saw a change of scenario related to the implementation of the obligation to mediate.

From the start-up date (1st April 2013) to 31st December 2016, the Conciliation Service received a total of 7,943 activation requests. In 2016, the main access channel was that of household customer associations (59%). In the channel for other delegates, other than the associations, 28% of requests were made; the final customer directly activated the Conciliation Service in 13% of the cases. Most of the mediation service activation requests concerned domestic end customers and the electricity sector. 72% of requests for activation of the Conciliation Service concerned disputes relating to billing matters, which include, inter alia, disputes relating to balances, readings, self-reading, consumption, billing intervals, billing corrections, and metering. 82% of the disputes did not exceed 2,000 € (threshold for small claims under Regulation 861/2007 of 11th July 2007 establishing a European Small Claims Procedure). The percentage of activation requests allowed in the Conciliation Service is 79%; cases of inadmissibility (20%) are mainly due to the non-transmission of documentation to be attached to the activation request and failure to observe the procedural timelines. In 1% of cases there was a waiver of action.

The adherence of the operator (supplier or distributor) to the procedure initiated by their client was done on a voluntary basis until June 30th, 2015, and after that date the participation has become compulsory for the major electricity consumers and distributors of both sectors. As of December 31st, 2016, the operator adhered in 69% of cases: in this case, successful disputes are 80% of those concluded.

With the approval of the new art. 141, paragraph 6, letter c) of the Consumer Code - which has updated art. 2, paragraph 24, letter b) of Law no. 481/95, by attributing to the Authority the power to regulate, by its own measures, the manner in which disputes can be settled out of court - the mediation attempt has become the condition for the action brought before the Court of Justice for disputes in regulated sectors[10].

In 2016, the Authority implemented this legislation with the approval of an Integrated Text on Dispute Resolution (TICO), which introduced **a procedure for trialling mandatory mediation attempts at the Conciliation Service** and identified alternative procedures that could be carried

[10] Under Italian Law, Italian Legislative Decree n. 130/15 implemented Directive 2013/11/EU of the European Parliament and Council of 21st May 2013, on the ADR for consumers, amending (EC) regulation 2006/2004 and directive 2009/22/CE (ADR directive for consumers).

out. The TICO has incorporated the previous rules, the effects of which ceased on January 1st, 2017, except for mediation applications submitted by 31st December 2016 and until their conclusion. TICO, operating from January 1st, 2017 for the electricity and gas sectors, applies to disputes between low and/or medium-voltage electricity customers and natural gas customers, as well as gas customers for gas other than natural gas distributed through at low pressure urban networks, domestic and non-domestic, including prosumers (electricity producers and consumers) and operators - suppliers and distributors – and limited to the prosumer, the GSE. The compulsory mediation attempt does not preclude, in any case, the granting of urgent and precautionary judicial measures.

The Authority extended the obligation to take part in the mediation attempt to all operators (with the exception of the last-resort suppliers), which until 31st December 2016 was only valid for those exercising electricity protection, electricity and gas distributors and GSE (for disputes related to dedicated withdrawal or on-the-spot trading), limiting this participatory obligation to the first meeting. Failure to comply with this obligation can be sanctioned by the same authority in accordance with current legislation. The condition of legal proceedings is deemed to have occurred if the first meeting with the Conciliation Service concludes without agreement, including cases of non-appearance of the counterparty.

The conciliators must be in possession of specific requirements and must guarantee the third party, also by respecting a specific code of ethics.

Following the entry into force of the TICO, the Authority's website which displays the out-of-court settlement of disputes was updated. The update included, inter alia, the Tutorial and FAQs, also available in English. The mediation service data is updated every six months. There is also a special alert on the obligation of a mediation attempt as a condition for litigation in disputes in sectors regulated by the Authority. A web page dedicated to the Chambers of Commerce parties to the agreement signed by the Authority and Unioncamere and, for domestic end customers, by ADR entities has also been created.

Security of supplies

Italian Legislative Decree no. 93/11, in implementing the Third Energy Package, attributes the functions and expertise in the security of supplies to the Ministry of Economic Development.

3 THE ELECTRICITY MARKET

3.1 Network Regulation

3.1.1 Unbundling

In 2015 the Italian Regulatory Authority for electricity, gas and water issued[11] new provisions concerning functional unbundling requirements for both the electricity and gas sectors, approving the related annex to the *Integrated text on Functional Unbundling* (TIUF), in accordance with the provisions of Italian Legislative Decree of 1st June 2011, n. 93, and Directives 2009/72/EC and 2009/73/EC. The innovations introduced by the new TIUF[12] include the introduction of new unbundling requirements, according to the regulatory requirements of Italian Legislative Decree n. 93/11, in relation to the communication and brand policies for the majority of electricity and natural gas distributors, regardless of their size or their corporate form, by imposing complete separation, without any risk of confusion, between the sale and distribution of electricity and natural gas and between the sale of electricity on the open market and the standard offer regime.

In 2016 the Authority[13] extended the time limit for the unbundling requirements in relation to communication and brand policies for companies who carry out electricity sales to end customers to the 1st January 2017. The extension was made necessary in view of the adoption of the so-called "*DDL Concorrenza*" ('Anti-trust Draft Law) (described in the summary), which outlines the new structure of the electricity sales market, in order to allow an adequate coordination between the new regulatory framework and the regulation of the unbundling requirements in relation to communication and brand policies (*debranding*), with appropriate procedures to meet the pro-competitive requirements, taking account of the principle of economic and financial equilibrium of the companies to which these provisions apply.

Certification of the transmission system operator

The Authority has filed the procedure[14] for the recertification of Terna, as electricity transmission system operator. The process of recertification was initiated[15] in the light of the change in the ownership of the company as a result of the sale of the shareholding of Cassa depositi e prestiti to entities incorporated under international law and to a group of Italian institutional investors. As a result of appropriate investigations, the Authority has established the absence of the necessary conditions to give impetus to a new certification procedure within the meaning of art. 10 and 11 of Directive 2009/73/EC and art. 3, paragraph 1, of Regulation (EC) 715/2009.

[11] Resolution of 22nd June 2015, 296/2015/R/com.
[12] That replaces the former regulations contained in resolution of 18th January 2007, n. 11.
[13] With the resolution of 22nd June 2016, 327/2016/R/eel.
[14] Resolution of 16th June 2016, 318/2016/R/gas.
[15] With the resolution of 29th January 2015, 20/2015/R/com.

3.1.2 Technical functioning

Dispatching service

Interventions on the signing and termination of the dispatching and transport contracts to complete the reform of the switching process

For the purposes of completing the reform of the switching process managed in the context of the Integrated Information System (SII), i.e. the national database created to make the exchange of information between operators in the sector more transparent and efficient, the Authority[16] has adopted certain provisions to enable the dispatching user to operate in this new regulatory context, streamlining the process of signing dispatching and transport contracts, as well as the procedures for managing the termination of these contracts in the event of breach by the user. The Authority has therefore transferred the activities and disclosure obligations previously attributed to distributors to the SII, by introducing the following changes:

- As newly responsible for the switching process, the SII is obliged to comply with the disclosure and verification requirements regarding the subsistence and correct execution of dispatching and transport contracts[17]. Among these, there is the obligation to communicate the information for updating the register of units of consumption (RUC) to Terna;
- Terna and the distributors are consequently obliged to promptly notify the SII of the signing of dispatching and transport contracts;
- Terna must also quantify the guarantees for access to the dispatching service of each new user. To this end, as part of the application for accreditation to the SII, the user must declare[18] its best estimate of the annual average power figure relating to the withdrawal points that will be served in the first month of the term of validity of the dispatching contract, and the SII transmits this information to Terna. For the purposes of the eligibility of a request for switching, other conditions were added to those already provided for[19], for verifying the capacity of the guarantees given by the user to Terna;
- With a view to centralize the switching process, the disclosure obligations[20] have been reformulated in the case of termination of the dispatching and transport contracts due to breach by the user[21]. This will also improve the timeliness of communications sent to the stakeholders, as well as to the end customers, counterparts of the breaching dispatching users;
- Pending the implementation of the intra-month switching process, and therefore provisionally, for end customers who, in the absence of a new contract on the open market, would be served in the safeguarded service, it is envisaged that, in the event of termination of the dispatching or transport contract due to breach by the user, the date of activation of the service is set so as to leave a sufficient period of time for finding a new supplier.

[16] Resolution of 25th February 2016, 73/2016/R/eel.
[17] Obligations governed by the resolution of 9th June 2006, 111/06.
[18] As governed by the resolution of 18th April 2013, 166/2013/R/eel.
[19] By resolution 487/2015/R/eel.
[20] It refers to the obligations governed the context of the *Integrated Text on Electricity Arrears* (TIMOE), referred to in Annex A to the resolution of 29th May 2015, 258/2015.
[21] In particular, it is established that the communications referred to in Articles 19 and 20 of TIMOE are carried out and managed by the SII.

New regulation of aggregating withdrawal measurements for settlement purposes

With the purpose of optimizing the processes of interaction between the various actors involved in the electricity system, the Authority has also arranged[22] for the attribution of the aggregation of the withdrawal measurements for the purposes of settlement, with reference to the electricity withdrawal points handled on an hourly basis, to the SII. This activity, for which Terna is now entirely responsible, was previously carried out by distributors.

In particular, the new rules envisage that Terna makes use of the SII, both in relation to activities related to monthly settlement sessions and the activities related to corrections of measurement data in the context of the half-yearly equalisation sessions.

The provisions introduced have allowed the elimination of the fee paid by dispatching users for the aggregation of the measurements as well as elimination of the related incentive adjustment and compensation borne by distributors, in the event of an inconsistency between the hourly curves sent to the dispatching users and aggregated hourly curves transmitted to Terna.

At the same time as the attribution of aggregation to the SII, the *Integrated Text on Electricity Metering* (TIME)[23] has been improved, with the inclusion of provisions relating to the simultaneous provision of measurement data relating to withdrawal points handled hourly, as well as the related corrections, to users and the SII.

These provisions were preceded by a trial phase that began in 2015, which allowed the testing and optimization of the process for the provision of data to the SII. Starting from 2016 the trial was also extended to the measurement data relating to sampling points not handled on an hourly basis.

Regulation of dispatching and transport contracts

The Authority has approved[24] the interventions concerning termination of dispatching and transport contract, due to breach by the user and activation of last resort services in the electricity sector.

The measure, that follows appropriate specific consultation[25], pursues the objective of reducing the time necessary for the termination of these contracts and consequently the period in which final customers remain in last resort services – if activated – also considering the need to reduce the burden of both switching processes already in place and settlement processes. In particular, the measure envisages that:

- The Integration Information System (SII) operator is required to send the standard communication to the end customers within two working days following communication of contract termination. The operator must then submit an appropriate explanatory report on the mode of execution of the activity, along with the text of the communication sent to the customer;
- end customers have seven working days to prevent the activation of services; in the case that services are activated, end customers would have the possibility to exit said services as soon as

[22] Resolution of 28th June 2016, 358/2016/R/eel.
[23] Annex B to resolution of 23rd December 2015, 654/2015/R/eel.
[24] Resolution of 6th October 2016, 553/2016/R/eel.
[25] Consultation document of 28th July 2016, 446/2016/R/eel.

they found a new supplier in the open market, thus departing from the ordinary switching timings.

As a consequence of these interventions, and considering the times envisaged in the event that the dispatching user intends to make use of the option to waive[26], the total time for termination of the contract is equal to 17 working days.

As regards settlement, it was envisaged[27] that, for the purposes of determining the electricity attributed to each dispatching user within the scope of the monthly settlement activities (including energy conventionally attributed to public lighting points), Terna considers the correct allocation of the quantities of electricity of the withdrawal points affected by the resolution, following the activation of services or a switch with a start date other than the first day of the month.

Forward supply of dispatching resources

The Authority has approved[28] Terna's proposal to stipulate tertiary reserve forward supply contracts in Sardinia. The proposal, drawn up in accordance with the criteria and procedures indicated by the Authority, has been outlined with the objective of maintaining the safety margins of the regional electricity system at a sufficient level, reducing and stabilizing charges related to the above-mentioned service.

Changes and additions to the regulation of transport capacity charges

The Authority[29] has approved the proposal transmitted by Terna on the regulation of selection procedures for the allocation of instruments hedging against the volatility risk of the transport capacity fee (TCFH and CCP), referring to the year 2017.

The TCHF is a hedging instrument against the volatility risk of the allocation fee of the transport capacity between a zone and the national hub, i.e. the national single price (PUN). The CCP, introduced in 2010, is a hedging instrument against the volatility risk of the transport capacity fee between a limited production hub and the adjacent area.

The selection procedure regulations for 2017, compared to those in place for 2016, present the following innovations:

- The precautionary revision of the mechanism for estimating the transit limits used in the selection procedures for the allocation of TCHF and CCP, allowing Terna to carry out appropriate evaluations concerning the unavailability of network elements that may significantly alter the transit capacity values between areas;
- The clarification that, if during the year variations in production capacity affect the availability of an allocated party such as to make the amount of TCHF and/or CCP allocated to the same, in one or more zones, greater than the operator's production capacity in the same areas, Terna would proceed to revoke allocation up to the updated production capacity, with consequent

[26] As established by art. 6, paragraph 6.3, the Integrated Text for Electricity Arrears (TIMOE).
[27] Resolution of 6th October 2016, 553/2016/R/eel.
[28] Resolution of 22nd June 2016, 326/2016/R/eel.
[29] Resolution of 4th November 2016, 631/2016/R/eel.

forfeiture of the allocated party from the rights and obligations associated with the allocation for the amount subject to revocation, starting from the date of the change.

The first phase of the market reform for the dispatching service

In June 2016, the Authority set out[30] the guidelines concerning the first phase of the comprehensive reform of the rules governing electricity dispatching services. The primary aim is to open the dispatching service market (MSD) to participation on the demand side and production units powered by non-programmable renewable resources.

To this end, the consultation paper has proposed that Terna proceed to update its own Network Code, with the objective of introducing:

- authorised virtual production/consumption units (UVA). These units are to be understood as aggregates of single input/withdrawal points located in the same geographic perimeter, also of relevance for MSD purposes; AUVAs can only include production units of a size lower than 10 MVA, while larger sized production units (significant units) should participate in the markets independently from one another;
- the technical requirements that each UVA and each significant production unit must autonomously respect to allow for integration into Terna's dispatching systems;
- the minimum performance, in terms of the provision of dispatching resources, which each UVA and each significant production unit must autonomously ensure for the purposes of obtaining market authorisation.

In the first phase the Authority has proposed to maintain separate aggregates for input and withdrawal. The first phase of the reform excludes all consumption and production not handled on an hourly basis, since the participation of profiled users would be extremely risky for dispatching users. Consumption units that provide the supply interruptibility or superinterruptibility service in Sicily and Sardinia are also excluded.

In addition, the overlapping of the supplier of dispatching services (*Balancing service provider* - BSP) and the party responsible for the economic adjustment of imbalances (*Balancing responsible party* - BRP) is envisaged; the possible separation of these two figures is deferred to a later stage of the reform.

For newly authorized units the same supply methods currently in force for the units currently authorised for participation in the MSD are envisaged, as well as the application of the same rules for the economic adjustment of effective imbalances (dual pricing at marginal price).

In this phase the distributors will be limited to interacting with Terna, indicating any problems that may arise on their network, as a result of the definition of the UVA, also having the possibility of preventing the inclusion, within an UVA, of one or more production or consumption units located on their network or setting limits *ex ante* to their movement. A more active involvement of the distributors will be evaluated in the later stages of the reform.

[30] Consultation document of 9th June 2016, 298/2016/R/eel

Revision of the rules for effective imbalances

After a detailed consultation process[31], the Authority has updated[32] the rules governing actual imbalances, in order to contrast the non-diligent system programming strategies adopted by numerous input and withdrawal dispatching users, in order to arbitrate between imbalance prices and zonal prices or between zonal prices within each macro-zone.

In particular, from 1st August 2016, for dispatching points for consumption units and dispatching points for insignificant production units other than those powered by non-programmable sources, a valuation of the actual imbalances based on a mixed single-dual pricing system has been introduced, structured as follows:

- application of the single pricing (average price of the resources mobilized on the MSD for balancing purposes) to effective hourly imbalances timetables that fall within the standard bracket;
- the application of the dual imbalance price (zonal price for effective imbalances that are discordant with the marker of zonal aggregate imbalance and average price of the resources mobilized on the MSD for effective concordant imbalances) to effective hourly imbalances that fall outside of the standard bracket.

At the time of first application, the standard bracket for the period August-December 2016 was set at 15% of the binding programme in input/withdrawal, as resulting from the accepted bids on the day-ahead market (MGP) and on the intraday market (MI).

The Authority has also provided for[33] the reduction of the standard bracket to 7.5 % from January 2017 and the extension, also from January 2017, of the mixed single-dual pricing system to dispatching points for insignificant production units powered by non-programmable sources as well (to be applied as an alternative to the bracket system defined in 2014[34]).

The Authority has subsequently introduced[35] some adjustments to the rules governing effective imbalances for the year 2017, envisaging:

- the extension of the standard bracket equal to 15%;
- the maintenance of the former rules dispatching points for insignificant production units powered by non-programmable renewable sources (*single pricing* as an alternative to the bracket system defined in 2014[36]).

The Authority has also amended, starting from the month of May 2017, the procedures for determining the zonal aggregate imbalance marker, moving on to a calculation based on actual input and withdrawal measurements rather than on movements arranged by Terna on the MSD.

[31] Consultation documents of 9th April 2015, 163/2015/R/eel, and of 16th June 2016, 316/2016/R/eel.
[32] Resolution of 28th July 2016, 444/2016/R/eel.
[33] Same resolution 444/2016/R/eel.
[34] Resolution of 23rd October 2014, 522/2014/R/eel.
[35] Resolution of 28th December 2016, 800/2016/R/eel.
[36] Resolution 522/2014/R/eel.

The aim is to make zonal aggregate imbalance marker more adherent to the physical reality of each zone.

In the meantime, the Authority has requested to Terna to update its own Network Code, to introduce an estimate of the zonal aggregate imbalance marker to provide to the operators at the latest the day following the day of delivery, promptly respecting the provisions of Regulation (EU) 543/2013. The entry into force of the new methods for determining the marker is subject to the availability of said estimate.

With the new method of determining a marker that is more consistent with the physical reality of each zone the possibilities for arbitrage between the zonal prices and the imbalance prices are significantly reduced. With the entry into force of the new methods for determining the market, this therefore makes it possible to suspend the mixed *single-dual pricing* system for the dispatching points relating to insignificant production units other than those powered by non-programmable renewable sources. The mixed system will however continue to remain in force for the consumption units (for which the arbitrage between the zonal prices within each macro-zone are also significant, which remain feasible even with the new method for determining the marker), albeit with a standard bracket equal to 30%, instead of 15%.

Regulation of network security and reliability

Updating of the Register of users' internal grids and extension of the date of entry into force of the Integrated text on closed distribution systems

In the current regulatory framework the term "electrical networks" is to be understood as all complex configuration electrical systems in which there are a multitude of end customers and/or electricity producers. In all these systems the transport of electricity for delivery to end customers is configured as transmission and/or distribution activities.

Within the context of the electricity grids two subsets can be distinguished: public grids[37], managed by the holders of an electricity transmission (Terna) or distribution concession, and closed distribution systems (SDC), private electrical networks, managed by entities other than Terna or distributors, which distribute electricity within an industrial, commercial or shared services sites in a geographically limited place, net of particular exceptions expressly provided for by the Authority's regulation, that do not supply civilian customers. In turn, the whole of the SDC is divided between the *users' internal grids* (RIU), defined by the law of 23rd July 2009, n. 99, and recorded by the Authority with its measures, and *other SDC*, referred to as other self-production systems (ASDC).

However, electricity networks do not include *simple production and consumption systems* that are attributable to a simplified scheme characterized by a single connection point, by a single electricity producer and a single final customer.

[37] Public grids are divided into the grids used by Terna for the provision of the transmission service and the distribution networks.

In this regard, the Authority has completed[38] the definitive and regulatory framework in this area and has updated the Register of RIU.

Start of the reconnaissance of historical cooperatives equipped with their own network, existing cooperatives equipped with their own network and of historical consortia equipped with their own network

The Authority has started[39] the reconnaissance for the identification of the historical cooperatives equipped with their own network[40], existing cooperatives equipped with their own network[41] and of historical consortia equipped with their own network[42].

In detail, the measure has established that the managers of cooperatives and consortia to send to the Authority by 30th June 2017 all the information required in order to identify which systems can be entered in the appropriate register.

Network connection times

The *Integrated Text on the Output-based Regulation of the Distribution and Metering Services* (TIQE)[43] currently in force for the regulatory period 2016-2023 sets specific standards for connections with MV and LV electricity distribution networks. In particular, the regulations include:

- a maximum estimated time for the completion of works on the LV network of 20 working days and on the MV network of 40 working days;
- a maximum completion time for simple works of 15 working days for the LV network and 30 working days for the MV network;
- a maximum supply activation time of 5 working days;
- A maximum supply deactivation time, upon request of the end customer, of 5 working days for the LV network and 7 working days for the MV network;
- a maximum supply reactivation time, following suspension for non-payment, of 1 business day.

Data relating to active and passive user connections are outlined below. The first are those required from electricity production plants to transmission or distribution networks, mainly to

[38] Resolution of 22nd December 2016, 788/2016/R/eel,

[39] The resolution of 22nd December 2016, 787/2016/R/eel in implementation of that established by resolution 578/2013/R/eel, which had established the Register of Historic cooperatives and the Register of Historic consortia.

[40] A historic cooperative equipped with its own network is each cooperative company that produces and distributes electricity referred to in art. 4 of Italian Law of 6th December 1962, n. 1643, and has available a network for the transport and supply of electricity to their members.

[41] An existing historic cooperative equipped with its own network is a cooperative equipped with its own network existing at 5 August 2010, which connects non-member customers, operating in the autonomous provinces of Trento and Bolzano, up to the date of issue of the concessions with the procedures provided for by the legislation currently in force.

[42] A historic consortium equipped with its own network is a consortium or a consortium company constituted for the production of electricity from renewable energy sources and for the uses of authorized provision to industrial sites prior to 1st April 1999, that has available a network for the transport and supply of electricity to their members.

[43] Approved by the resolution of 22nd December 2015, 646/2015/R/eel.

allow these plants to feed energy into the electricity system; the second, however, are those required from end customers to transmission or distribution networks, to allow withdrawal of energy from the electricity system. The data related to active user connections with the transmission network, recorded in this document, refers exclusively to activities carried out by Terna, whereas the data related to active user connections with distribution networks refers exclusively to activities carried out by distribution companies with more than 100,000[44] customers. Finally, data on passive customer connections was collected from Terna and distribution companies as part of the regular Survey on Regulated Sectors, carried out annually by the Authority.

In the year 2016 Terna has received 91 connection requests for electricity production plants, corresponding to a total power of approximately 2.6 GW. In the face of such requests, Terna provided 54 estimates, corresponding to a total power of approximately 1.1 GW, with average estimate provision times (excluding permitted interruptions) of 43 working days. Finally, in 2016, 31 estimates were accepted out of the total of those provided, corresponding to a total power of approximately 0.6 GW. For two of these, corresponding to 37 MW, the request for the provision of Detailed Minimum Technical Solution (STMD) was submitted: for one of these, corresponding to 23 MW, the STMD was released, but has not yet have been accepted by the applicant party.

With reference to the connection of electricity production plants to distribution networks, in 2016 distributors received a little less than 51,900 connection requests for electricity production plants to connect to low and medium voltage networks, corresponding to a total power of a little less than 1.7 GW, and, in relation to these, in the same year they provided a little less than 47,200 estimates, corresponding to a total power of approximately 1.3 GW, with average estimate provision times, excluding permitted interruptions, equal to:

- 15 working days, for requested power output up to 100 kW;
- 32 working days, for requested power output greater than 100 kW and up to 1,000 kW;
- 42 working days, for requested power output greater than 1,000 kW.

About 40,200 estimates of the total of those provided were accepted, corresponding to a total power of just over 0.9 GW. In addition, in relation to the requests made in 2016, about 30,750 connections were carried out, corresponding to approximately 300 MW, with average implementation times, excluding permitted interruptions, of:

- 8 working days for simple works[45];
- 42 working days for complex works[46];

[44] This is 10 distribution companies: AcegasApsAmga, Areti, Deval, e-distribuzione, Inrete, Ireti, Megareti, Set Distribuzione and Unareti and Edyna. Edyna is the only company among these that has not sent the data relating to the connections of plants for the production of electricity energy within the deadline, therefore its data are not included in the results set out in the text.

[45] Simple works are the professional construction, modification or replacement of the network operator's plant carried out with limited interventions to the outlet and possibly the metering unit.

[46] Complex works are the professional construction, modification or replacement of the network operator's plant, for all cases not included in the definition of simple works.

while the average time for activation of the connection, excluding permitted interruptions, is equal to 8 working days.

In 2016 e-distribuzione was the only distributor that received 11 connection requests for electricity production plants to be connected to high voltage networks, corresponding to a total power of approximately 86 MW; in the same year e-distribuzione provided three estimates, corresponding to a total power of just over 21 MW, with average estimate provision times, excluding permitted interruptions, of 43 working days. All three estimates provided were accepted in the year 2016; for one of these, a request was made for provision of the STMD (for a power of 2.5 MW), which was accepted, while the connection is not activated at the date of 31 December 2016. Therefore, in 2016 no connection was made for the connection requests submitted in the same year.

As regards the connections of passive users, in 2016 (**Errore. L'origine riferimento non è stata trovata.**), the data collected show that just over 262,000 connections were made with the distribution networks, almost all low voltage. The average customer connection time was 8.5 working days. In particular, the average time for making low voltage connections was 6.7 days. The average time for making medium voltage connections was a little longer: 14.6 working days. Compared to 2015, the data shows a smaller number of requests (there were 305,921 the previous year, 14% more), but a reduction in connection time. As in 2015 an average of 9.9 working days were required to obtain a passive connection to the low or medium voltage network, this year recorded a saving of 1.4 working days, 14% less time.

On average each distributor made 1,971 connections over the course of the year. If we exclude operators which have not carried out even one connection (56 subjects) from the calculation, it appears that the average number of connections carried out by each distributor in the year is equal to 3,405.

In 2016, Terna made only one connection to the high and very high voltage network for a single passive customer that had sent the request during 2014. The average connection time (always excluding the time spent to obtain any acts of authorisation and the time spent by final customer fulfilling any obligations) was 200 working days; the average time spent by final customer fulfilling any obligations was 447 working days.

Table 3.1 Number of passive user connections with the distribution networks and average connection time in 2016(A)

VOLTAGE LEVEL	NUMBER OF CONNECTIONS	AVERAGE TIME (WORKING DAYS)(A)
Low Voltage	260,991	6.7
Medium Voltage	1,215	14.6
TOTAL	262,206	8.5

(A) Value calculated without taking into account those with no connections, excluding the time spent to obtain any permissions and/or for possible fulfilments by the final customer.

Source: Annual Survey on Regulated Sectors.

Regulation of the technical quality of the services

Continuity of the electricity distribution service

With reference to the continuity data of the 2015 service, in January 2017 the Authority published, on its website, the fourth national ranking of electricity distribution companies in relation to the number and duration of interruptions. From the data published it can be confirmed that families and small electricity consumers that benefit from the improved continuity of the service are mainly located in the North of Italy, in urban areas, and are served by distribution companies with most of their network underground. For industrial customers connected to the medium voltage network the figures also highlight that the lowest number of interruptions occurs in the provinces of the North of Italy.

In relation to the forecasts of the *Integrated Text on the Output-based Regulation of the Distribution and Metering Services for the regulatory period 2016-2023* (TIQE 2016-2023)[47] the Authority[48] has identified the objectives for annual improvement (tendential levels) of the continuity of the electricity distribution service for the period 2016-2023. The improvement objectives relate to the main electricity distributor (e-distribuzione) and 28 other companies that serve at least 15,000 users.

Finally, a working table was established[49] on the quality of the service, gaining further insight into the following themes:

- The resilience of the electricity system;
- Regulation of premiums/penalties for unexpected long duration, even attributable to force majeure;
- Frame of reference of the individual standards for users connected to the medium voltage network in industrialised areas;
- Special forms of contracts for users connected to the medium voltage network.

Resilience of the electricity system

Specific focus was placed on the resilience of the electric system issue, as a result of severe and extended weather events that caused interruptions attributable in large part to force majeure. The Authority has laid the foundations for assessing the regulatory sustainability of mechanisms aimed at reducing the impact caused by large portions of high and medium voltage networks being 'out of service', including preparation, by Terna and distributors with more than 50,000 users, of Work plans aimed at increasing the resilience of the electricity system. These plans, which must be transmitted to the Authority by 31st March 2017[50], must contain a technical analysis and the cost and benefit elements of the investments identified, in light of the effects of the severe and persistent weather events occurred over the last 15 years.

[47] Resolution of 22nd December 2015, 646/2015/R/eel.
[48] Resolution of 1st December 2016, 702/2016/R/eel.
[49] Decision of 18th February 2016, 6/2016 - DIUC, in implementation of paragraph 3(c) of Resolution 646/2015/R/eel,
[50] Resolution of 29th September 2016, 545/2016/R/eel.

In addition, the topics covered by the working table focused mainly on ways for overcoming the issues caused by the breakage of the overhead electric power lines, due to the formation of icicles during heavy snowfall, to flooding of electrical plants in urban areas as a result of heavy rain, to overheating of the same plants due to the high temperatures in summer, and to other types of issues that make the electricity network vulnerable. As a result of these activities, also thanks to the contribution of the Italian Electro technical Committee (CEI), methodologies have been developed for identifying the most critical portions of the transmission and distribution system.

New provisions have also been introduced[51] for network operators, aimed at accelerating the recovery of the electricity distribution service in cases of emergency, such as heavy snowfall. These provisions:

- Lay down the principle by which the long duration interruptions, albeit triggered by reasons of force majeure, become the responsibility of network operators beyond the first 72 hours;
- Provide automatic compensation for consumers until the tenth day of interruption, tripling the maximum amount with respect to the existing situation.

New mechanism for output-based regulation of electricity distribution services: planned interruptions

The Authority has introduced[52] new rules on experimental regulation incentivising the reduction of the duration of interruptions with pre-warning by the electricity distribution service, taking into account that:

- The incentive for the reduction of the duration of interruptions with pre-warning must be sustainable and compatible with the needs for completion of the work for development and maintenance of the electric network;
- The reduction of the duration of interruptions with pre-warning must not be pursued at any cost, at the expense of the aforesaid activities. Since this is an experimental regulation, the forms of penalty must be contained in order to allow a wider participation by distributors, being solely intended to prevent purely opportunistic conduct.

The distributors identify the participating territorial areas and, for each of these, the improvement objectives for each year of the three-year period 2017-2019 (improvement phase); in the improvement phase only annual premiums and by territorial area are envisaged, for the improvement achieved with respect to the starting level.

However, for the four-year period 2020-2023 a phase of maintenance of the duration level of interruptions is envisaged, with pre-warning equal to that envisaged by the companies for 2019. This phase covers: (i) penalty if the duration level of interruptions with pre-warning worsens excessively with respect to that envisaged by the companies for 2019; (ii) the refund of premiums achieved in the three-year period 2017-2019, if the duration of the unplanned interruptions, the subject of the similar premiums/penalty regulation, exceeds the relevant target levels.

[51] Resolution of 9th March 2017, 127/2017/R/eel.
[52] Resolution of 6th October 2016, 549/2016/R/eel.

Adhesion to the mechanism by the distributors must take place before 31st March 2017, with the communication of the service continuity data for the electricity distribution service for 2016.

Update to the regulation of voltage quality

The objectives pursued on the topic of voltage quality are attributable to the need to ensure an adequate quality level of the voltage itself, to reduce the performance differences between the various electricity distribution networks on the national territory and to make use of reliable, comparable and verifiable quality indicators to allow adequate information to the users affected by disruptions in voltage quality.

On the subject, over the years, the Authority's action has increasingly focused on the recording of voltage dips, as regards medium voltage networks, and on the slow voltage variations as regards low voltage networks, laying the foundations for the introduction of new regulatory elements.

Within the scope of the working table established by the Authority in 2012 (involving the Authority itself, Ricerca sul Sistema Energetico (RSE), the distributors and Terna), a methodology for determining the origin of voltage dips (high voltage or medium voltage) recorded by the equipment for measuring the voltage quality (ADM) installed on each half-busbar medium voltage of a primary substation was defined. In the month of February 2016 the format of the data related to voltage dips that, according to the classification provided by CEI EN 50160, must be communicated by the distributors to the Authority and to RSE with effect from the year 2016 was disclosed[53].

Starting from 2016, distributors have the obligation to communicate to the users connected to medium voltage networks, in addition to the number and duration of interruptions, the number and classification of voltage dips that affected them, as recorded by the AdM installed on the MV half-busbar MT of a primary substation.

In 2016 distributors were provided[54] with contributions equal to 3.2 million euro for the commissioning, by 2014, of the Measuring Equipment at each medium voltage half-busbar at the primary substation.

Regulation of electricity metering

Over the course of 2016 the Authority approved[55] the *Integrated Text on Electricity Metering* (TIME), which pursues the objective of streamlining the regulation of electricity metering, integrating the regulation of metering energy input and withdrawn and metering of energy produced into a single ruling, reviewing the underlying definitions and the responsibilities of the various operations that make up metering. In particular, the amendments contained in the TIME:

- provide some clarifications aimed at improving the effectiveness of metering. For example, it differentiates times for carrying out maintenance, as a result of a malfunction of the metering equipment, for users connected to different voltage levels, extending those already provided for under the Integrated Text on Electricity Quality 2016-2023 to all types of low voltage users and confirming the timings already in force (48 hours) for other voltage levels;

[53] Decision of 18th February 2016, 5/2016 - DIUC.
[54] Provision established with the Resolution of 14th April 2016, 179/2016/R/eel, and as a result of insights provided by Resolution of 12th November 2015, 534/2015/R/eel,
[55] Resolution of 4th August 2016, 458/2016/R/eel, in response to the consultation document of May 31st 2016, 288/2016/R/eel.

- extend the scope of application of the provisions[56] relating to the plans for replacing metering equipment with second generation instruments (2G), envisaging that the functional requirements are also applied in the case of metering points in electricity production sites and of connection metering points of that coincide with pure input points, to be applied from the start of the introduction of the 2G metering systems by each distributor;
- it lays the groundwork for the next update of the settlement regulation (TIS) in relation to the profile of the production and the input of electricity from photovoltaic plants, following a proposal submitted by the Gestore dei Servizi Energetici (GSE) in the light of the data in its possession.

Second generation smart metering (2G)

In implementation of art. 9, paragraph 3 of Italian Legislative Decree n. 102/14, the Authority[57] has defined the functional specifications to authorize low voltage smart meters, and the expected performance levels of the so-called "2G" second generation smart metering systems, with a view of replacing the first generation meters that will have completed their expected useful life for regulatory purposes. This measure, in summary, provides that:

- the 2G meters are equipped with two channels of communication, the first toward the electricity system (*chain 1*) and the second toward the users' devices (*chain 2*). For all communication solutions, the Authority maintains a technologically neutral approach and requires the use of standard protocols to ensure interoperability and interchangeability;
- the 2G smart metering systems adhere to expected system performance levels, with reference to the performance in mass remote meter reading, remote management, mass reprogramming, spontaneous reporting, and lays down a number of timing criteria for the implementation of the 2G smart metering systems with two-level structure with concentrators, aimed at the rapid deployment of the benefits during the phase of replacing the existing meters.

These levels were defined whilst taking into account the expected development of the SII, the evolution of the regulation of the billing and correction process, the switching procedures, also in consideration of the progressive conclusion of the standard offer regime, the introduction of new commercial formulae, the possibility of pre-payment and, in prospect, the market participation of dispatching services, including final customers connected to the low voltage network, through appropriate demand response products.

The abovementioned measure, in view of potential developments in technology (especially those related to communications), has also envisaged the possibility of an incremental evolution of metering devices, which are currently in the so-called "Version 2.0", toward a more advanced version (so-called "Version 2.1"), characterized by a technological solution of additional communication (fibre optic or wireless) for the *chain 2* and possibly also usable for the *chain 1*. In this context, the Authority is about to start a process in order to assess the actual availability of

[56] Resolution of 8th March 2016, 87/2016/R/eel.
[57] Resolution of 8th March 2016, 87/2016/R/eel.

standardized technological solutions, which allows the definition of these incremental functions, with the collaboration of the Italian Authority for Communication Guarantees (AGCOM).

With the consultation launched in August 2016[58] the Authority has illustrated the guidelines in relation to the effects and the necessary regulatory activities for completion of the actual usability of benefits related to the electricity system as a result of the introduction of the 2G systems. In particular, the analysis was aimed at:

- identifying the opportunities for the development of new services or existing processes, also in order to allow assessment of relevant necessary costs;
- outline the benefits associated with the proposed scenarios and identify possible methods for quantification;
- evaluate the regulatory gaps, in order to realize all the opportunities permitted by the new 2G systems;
- lead a path of reform that is sustainable, comprehensive and protective in respect of final consumers and all stakeholders involved.

The document also reports the possible outcomes – in terms of the sector and in respect of the different actors in the supply chain - that the adoption of 2G systems could bring about in terms of improvement of services and of existing processes (billing, management of contractual events, switching processes and transfer etc.), as well on the authorization of new services and commercial proposals (reporting services and the development of behavioural models of consumption, demand side response, prepaid type offers etc.). The benefits related to the dissemination of 2G systems are primarily attributable to the availability, for the various actors of the supply chain and of the final customer, a greater amount of data (typically the four-hourly curves), with a better accuracy between the time of withdrawal or input and making them available (i.e. within 24 hours, if validated, or in near real time, through the *chain 2*).

The document also identifies the need to carry out an appropriate adaptation of existing legislation, to ensure that the technical features of the 2G systems can produce their full benefits. The progressive dissemination of the new metering system will actually allow some systemic processes to be adapted only for customers equipped with the new technology, creating a potential discrimination between customers, according to the organization of the installation and operation plan for the system. When updating the regulation it will therefore be appropriate to assess the balance between the timeliness in the activation of the benefits and the minimization of the difference in treatment between customers belonging to the same type.

Regulation of the commercial quality of services

The *Integrated Text for the Output-based Regulation of Electricity Distribution and Metering Services for the regulatory period 2016-2023* (TIQE) also regulates the commercial quality of the distribution and metering services with reference to the services requested by the users. The

[58] Consultation document of 4th August 2016, 468/2016/R/eel.

provisions envisage general and specific quality standards, with automatic compensation, mandatory for distributors, designed to protect users and to promote the overall average improvement of the services provided nationwide.

Compared to the previous regulatory period the main innovations are the following:

- reduction of maximum times for services requested by end customers with regard to the estimation and execution of works;
- expansion of the number of services that qualify for quick estimation (by telephone, by the vendor);
- introduction of certain basic criteria for drafting agreements between distributors and potential customers with regard to mass connections and activations.

Furthermore, aspects are also considered relating to data and information recording requirements, data control methods, mass connections and activations and metering service performance.

In 2016 some changes[59] were made to the TIQE 2016-2023, in respect of the provision of technical data required by the vendor. In particular a progressive reduction of the timing for the provision of such data, the standardization of the amount of compensation due from the distributor to the vendor, and the reduction to 6 months of the time limit for the payment of compensation have been established.

Safeguarding measures for the electricity system

For safeguarding measures for the electricity system, please refer to the paragraph on network security and reliability.

Regulatory framework for renewable energy

The regulation of Simple Production and Consumption Systems, of which the Efficient User Systems (SEU) and Existing Systems Equivalent to Efficient User Systems (SEESEU) represent the two main subsets, was defined in 2013[60] by the Integrated Texts on Simple Production and Consumption Systems (TISSPC).

In 2015, the technical rules required for the application of the TISSPC[61] were verified and approved. At the start of 2016, the TISSPC was amended, for the purposes of both adopting certain provisions introduced by Italian law[62], and to introduce of certain further simplifications in the field.

[59] Resolution of 21st July 2016, 413/2016/R/com.
[60] Resolution of 12th December 2013, 578/2013/R/eel,
[61] Resolution of 21st May 2015, 242/2015/R/eel.
[62] Provisions contained in the Italian Decree Law of 1st October 2015, n. 154, converted with amendments by the Italian Law of 29th November 2015, n. 189, and in the Italian Law of 28 December 2015, n. 221.

Specifically, among other things, the Authority[63]:

- removed the condition of a maximum power of 20 MW for the creation of a SEU from the TISSPC;
- established that, by the 31st October 2016, even in absence of an explicit request, the GSE must set in motion the SEU qualification procedures for configurations with a photovoltaic system of up to 20 kW installed by an end customer – whose production uses the all-inclusive tariff and the premium tariff for on-site consumption[64] - based on data already available, requesting any additional data as necessary, and must issue, if warranted, the aforementioned qualifications to take effect from the 1st January 2014;
- finally, established that the GSE must prescribe certain simplifications to the procedure for issuing SEU qualifications in the case of systems that are particularly simple and have low power electricity production plants of up to 100 kW, subjecting them to the assessment and approval of the Regulatory Authority.

Simplifying electricity production plant connections

At the end of a specific consultation[65], the Authority has made[66] some changes and innovations to the *Integrated Text on Active Connections* (TICA)[67], in terms of both simplifying the procedures for connecting production plants, and the implementation of new information flows on the Management of Single Registries of Production Plants and their Production Units (GAUDI), in relation to the status of the electricity production plants. In detail, the measure:

- restructures the values of the fee for obtaining the quote, establishing lower values compared to the previous ones, in the case of connection requests with power output up to a maximum of 10 kW, in order to prevent these from significantly affecting the total cost of the electricity production plant ;
- defines the provisions aimed at the management, in the GAUDI system, of the conservation, re-activation and decommissioning of electricity production plants, providing in particular that:
  - in the case of production plants or production units placed in conservation, the available power output remains available to the same plant or production unit;
  - in the case of decommissioned production plants or production units, the available power output does not remain available to the producer and, consequently, is made available for use by the network operator for the connection of other users;
  - a flat-rate fee is applied, to cover the costs incurred for the purposes of the tasks associated with the reactivation of the production plants and production units (conventionally set equal to that provided for the de-activation and reactivation of the supply due to arrears and re-connection of seasonal users).

[63] With the resolution of 25th February 2016, 72/2016/R/eel.
[64] Laid down by the inter-Ministerial Decrees of 5 May 2011 (the so-called "IV Energy Account") and 5 July 2012 (so-called "V energy account").
[65] Consultation document of 12th May 2016, 234/2016/R/eel.
[66] Resolution of 21st July 2016, 424/2016/R/eel.
[67] Annex A to the resolution of 23rd July 2008, ARG/elt 99/08.

Report on the use and integration of production plants powered by renewable sources and high efficiency cogeneration plants

In June 2017 the Authority published a report[68] on the mix of electricity production, analysing the state of use and integration of production plants powered by renewable sources and high-efficiency cogeneration plants.

The report describes the evolution of the electricity production mix in Italy, highlighting the increasing dissemination of renewable sources, in particular non programmable sources, and distributed generation. It also describes the development of the electric system, in terms of access to the networks, of evolution of the markets and of dispatching.

The report also indicates the updated data relating to the impact of instruments in support of renewable energy sources and of high-efficiency cogeneration, in terms of quantity of energy incentivised and financial hedging through the charges in the bill.

3.1.3 Network tariffs for connection and access

Renewable and assimilated source incentives

Over the course of 2016 an abnormal and significant increase in costs relating to the incentives for production from renewable sources occurred, as, starting from that year, green certificates had been replaced by administered incentive instruments, as foreseen by the same Authority several times (see *Annual Report 2014* and the *Annual Report 2015*).

However, the adjustments already made over the course of 2015 have allowed the above extraordinary financial needs for 2016 to be met. With reference to 2016, the previous deficit of the account A_3, mainly accrued before the year 2011, is practically cancelled.

On the basis of the initial estimates, in the year 2017, charges placed made to the A_3 account show a significant decrease compared with those expected for 2016.

The Authority has therefore reduced[69] the tariff component A_3.

[68] Report of 22nd June 2017, 464/2017/I/efr.
[69] Resolution of 29th December 2016, 814/2016/R/com.

Table 3.2 Detail of A_3 charges

CHARGES	2015		2016(A)	
	VALUE	% SHARE	VALUE	% SHARE
Trade in CIP6 renewable electricity	285	2.2	259	1.8
Purchase of green certificates	3,851	29.7	2,062	14.3
Conversion CV into incentives	0	0.0	3,320	23.0
Photovoltaics	6,237	48.0	5,981	41.4
Dedicated withdrawal	38	0.3	49	0.3
All-inclusive tariff	1,859	14.3	1,940	13.5
On-the-spot trading	159	1.2	181	1.3
FER administered incentives	152	1.2	305	2.1
Other	1	0.01	1	0.01
TOTAL RENEWABLE	12,582	96.9	14,098	97.7
Trade in assimilated CIP6 electricity	309	2.4	280	1.9
Assimilated CO_2 charges	37	0.3	35	0.2
Coverage of assimilated Green Certificates	37	0.3	14	0.1
Charges from CIP6 resolution	18	0.1	9	0.1
Revision of prices following Ministerial Decree 20/11/2012	2	0.0	0	0.0
TOTAL ASSIMILATED	403	3.1	338	2.3
TOTAL A_3 CHARGES	12,985	100.0	14,436	100,0

(A) Preliminary data.

Source: AEEGSI processing of GSE data.

The new regulation period for transmission, distribution and metering services

As previously reported in the last edition of the Annual Report, in 2015 the Authority defined[70] the tariff regulation of electricity transmission, distribution and a metering services for the 2016-2023 regulatory period, approving, in addition to the *Integrated Text on the provisions for the supply of electricity transmission and distribution services* (TIT - Annex A), the *Integrated Text on Electricity Metering* (TIME) and Integrated Text on the economic conditions for the delivery of the service connection (TIC - Annex C) as well, with effect from 1st January 2016.

The duration of the regulatory period was divided into two sub-periods, each of four-year duration (NPR1: 2016-2019 and NPR2: 2020-2023). With reference to the NPR1, the definition of incentive regulation schemes for the recognition of operating costs and rate-of-return type regulation schemes for capital costs are expected, in substantial methodological continuity with the criteria adopted in the previous regulatory period. In relation to NPR2, the adoption, under study, of an approach to overall expenditure control (the so-called totex approach) is expected, as will subsequently be defined.

For NPR1 the rate of the annual reduction rate of recognized unit costs was set at:

[70] Resolution of 23rd December 2015, 654/2015/R/eel.

- 1.0% for the transmission service;
- 1.9% for the distribution service (including service marketing costs);
- 1.0% for the metering service.

Transmission service tariffs

In 2016 the Authority determined the tariffs for the provision of electricity transmission services for the year 2017, approving the tariff proposal submitted by the transmission system operator concerning the updating, for the year 2017, of revenues of reference to hedge the costs relating to transmission activities and the costs incurred for performance of dispatching.

Distribution and metering service tariffs

With reference to the electricity distribution and metering services, for the period 2016-2019 the Authority[71], in order to promote aggregations among small distributors, has introduced differentiated procedures for recognition of capital costs between companies with over 100,000 withdrawal points connected to their own networks (procedure based on an individual cost recognition regime) and companies that lie below this threshold (procedure based on a parametric regime).

For companies with over 100,000 withdrawal points, strict methodological continuity with the criteria adopted during the 2012-2015 regulatory period is envisaged, both in terms of determining operating costs and in terms of capital costs (remuneration and depreciation).

One of the main changes concerns offsetting the financial effects of regulatory lag in recognising new investments to distributors. From the year 2016, in fact, the tariff recognition also includes the value of the investments of the year n-1 with respect to the year of application of the tariff. This mechanism implies that the tariff determinations made in year t, which relate the reference tariffs, are provisional, the final values of the investments made by companies in the year t-1 being not yet available. The reference tariffs are consequently only definitively approved in the following year, when the value of the investments subject to tariff recognition is available at final balance. In continuity with the previous regulatory period, the decoupling between the single tariff applied to final customers (so-called "Mandatory tariff") and the reference tariffs defined to set the constraints to revenues allowed for each distribution company have also been established.

With specific reference to companies that serve more than 100,000 withdrawal points, the Authority has approved[72] the provisional reference tariffs for the distribution service (including marketing) and for the metering service relating to the year 2016. These rates were subsequently determined definitively[73].

[71] With the resolution of 23rd December 2015, 654/2015/R/eel.
[72] Resolutions of May 12th 2016, 233/2016/R/eel, and of 27th October 2016, 606/2016/R/eel.
[73] Resolutions of 24th March 2017, 188/2017/R/eel, and of 30th March 2017, 199/2017/R/eel.

In relation to companies which connect up to 100,000 withdrawal points, the Authority has illustrated[74] its guidelines relating to the parametric criteria to adopt for the purposes of tariff recognition relating to the distribution and metering service.

As a result of the consultation, it emerged that the Authority's proposals were not fully shared, in particular with reference to the methods for determining the starting level of tariffs calculated according to parametric criteria. The *stakeholders* also expressed the need to gain further insight into the topics connected to the variables to consider in the recognition of costs, in order to correctly reflect the effects linked to the presence of variables outside the companies' control that result in differentiated conditions and costs for service provision. In relation to the reference tariffs for the metering service it emerged, finally, that there was a need for coordination with the cases of recognition of costs for second generation *smart metering* systems, laid out in the specific consultation[75].

These insights have led to the extension of the time needed for the adoption of the final measure concerning the parametric criteria for the determination of reference tariffs for companies that serve up to 100,000 withdrawal points. Therefore, in order to preserve the economic and financial balance of these companies, pending the conclusion of the process, the Authority has approved[76] the provisional reference tariffs relating to distribution and metering services for the year 2016, by applying the criteria in substantial continuity with those used for larger companies.

At the end of 2016[77] compulsory tariffs relating to the distribution and metering service for the year 2017 were approved.

Tariff provisions on 2G second generation smart metering systems

Regulation concerning 2G smart metering systems has also been carried out with the definition of the rules for recognising the costs for low voltage electricity metering. In fact, following extensive consultation[78], the Authority has identified[79] the criteria for recognising the capital costs for the 2G smart metering systems, based on incentivising regulation schemes. For the three year period 2017-2019 these schemes are only applied to capital expenditure, while from 2020 recognition of the same costs will be based on the total expenditure (*totex*).

With the goal of allowing companies the necessary flexibility in choosing the scheduling for replacing the first generation meters currently in the field, taking into account the primary and secondary legislation in this area, the Authority has envisaged that companies that intend to start the commissioning of 2G smart metering systems are required to prepare, publish and submit for consultation a fifteen-years commissioning plan, whose approval by the Authority, may occur either according to a shortened pathway, which involves a rapid decision (within 90 days) in the event that the total capital expenditure expected by the company is less than the reference expenditure defined by the Authority, or according to an ordinary path, that is longer and more analytical.

[74] Consultation document of 21st July 2016, 428/2016/R/eel.
[75] Consultation document of 4th August 2016, 457/2016/R/eel.
[76] Resolution of 6th December 2016, 734/2016/R/eel.
[77] Resolution of 22nd December 2016, 778/2016/R/eel.
[78] Consultation documents of 26th May 2016, 267/2016/R/eel, and 457/2016/R/EE.
[79] Resolution of 10th November 2016, 646/2016/R/eel.

The approval of the plan involves the admission of the company to a specific tariff regime, which is based on the innovative elements of tariff regulation, including in particular: the analysis of expenditure forecasts, incentive schemes for the efficiency and *ex post* monitoring of the progress, the expenditure and performance. In addition, for the purposes of tariff recognition a "conventional profile" is used, which excludes that there may be overlaps in recognition of costs between 1G meters and 2G meters.

The incentive recognition of costs is based on the use of the IQI[80] incentives matrix that sets the value of the incentives to recognize to companies for the different combinations of actual expenditure incurred by the distributor and expenditure envisaged by the regulator. This matrix combines an incentive for efficiency - aimed at rewarding (or alternatively penalizing) the company in the event of actually spending less (or, respectively, more) than that expected (*sharing*) - and a mechanism aimed at inducing the firm to provide a truthful expenditure estimate (*additional income*). The application of the IQI matrix to individual companies follows the approval of every single commissioning plan on the basis of the expected expenditure defined by the regulator.

In December 2016, e-distribuzione submitted a request for admission to recognition of the investments made for commissioning of its own 2G smart metering system. As a result of the consultation process relating to this plan, the Authority's Offices verified the existence of the conditions for access to the shortened pathway. This implies that the expected expenditure would ensure substantial invariance of the current tariffs applied to the low voltage electricity metering service.

Approval of the plan also implies the year by year application of mechanisms for monitoring the progress of the companies' plans, involving systems for reducing tariff recognition in the event of failure to reach at least the 95% of the progress target set by the same company.

Finally, for those companies that do not have a plan for the commissioning of 2G smart metering systems, a transitional regime has been defined based on parametric logics, effective from 2018, while for 2017 the current provisions based on the criterion of the historical cost revalued with the application of a maximum limit to the permissible unitary expenditure, equal to 105 % of the value of the gross investment per meter, corresponding to the investments that went into operation in 2015, have been confirmed.

Progressive revision of domestic tariffs

Article 11, Par. 3 of the Italian Legislative Decree No. 102 of 4th July 2014, which implements the European Directive on energy efficiency, stipulates that the Authority must adjust the components of the electricity tariff in order both to phase out the progressive structure related to consumption (with the identification of service cost-associated tariff components), and to promote virtuous behaviour and, finally, to encourage the achievement of efficiency objectives. The Italian Legislative Decree also establishes that the Authority must put forward proposals for the definition of any new criteria for the calculation of expense reimbursement to be awarded to economically disadvantaged groups of the population (social bonus).

[80] Defined through the resolution 646/2016/R/eel.

The Annual Report 2016 illustrated the steps of the process through which the Authority has defined[81] the pathway by means of which to complete the tariff reform, phasing out the current progressive tariff structure by 2018 by following the gradual approach summarised in Table 3.3.

Table 3.3 Gradual approach for the reform of domestic tariffs

Option G2	From 1st January 2016	From 1st January 2017	From 1st January 2018
Network Services	Reduced progressivity	New non-progressive structure	New non-progressive structure
Sales Services	Same as 2015	New non-progressive structure	New non-progressive structure
General charges	Same as 2015	Temporary structure	New non-progressive structure
Subscribed power	Data Availability	Data Availability	Data Availability
		Redefinition of prices	Redefinition of prices
		Reduction of fixed charges	Reduction of fixed charges

Source: AEEGSI, consultation document 293/2015/R/eel.

In the context of the abovementioned three-year pathway, on 1st January 2016 the first step was taken with the redefinition of the tariff prices relating to network services (transmission, distribution and metering), so as to increase the fixed quotas applied to customers with tariff D2 (resident and with subscribed power no greater than 3 kW) and to mitigate the progressive structure of the variable quotas (expressed in c€/kWh).

On 1st January 2017 the second step of the reform was taken[82] which involved:

- the adoption of the trinomial and non-progressive structure (indicated as TD) for tariff prices for network services (transmission, distribution and metering), to be applied to all domestic customers, regardless of their registered permanent address;
- the redefinition of prices covering general system charges, in order to mitigate the effect of progressive consumption and to limit the number of different rates between annual consumption brackets to two, so as to progressively head towards phasing out the progressiveness of such components from 1st January 2018;
- the phasing out of the distinction of domestic customers into sub-types defined (for tariff purposes) based on criteria related to the customer's registered permanent address and on the contractually subscribed power, only maintaining differentiation between resident and non-resident customers;
- a reduction of the progressivity that, until now, had characterized the structure of the tariff component refunding the differential relating to marketing applied to all final customers entitled to standard offer regime, aligning it with that applied for the prices covering general system charges;

[81] Resolution of 2nd December 2015, 582/2015/R/eel.
[82] Resolution of 22nd December 2016, 782/2016/R/eel.

- measures aimed at facilitating final domestic customer to optimise their expenditure for the electricity supply, by identifying the level of contractually subscribed power that best suits their needs (introduction of levels of contractually subscribed demand with a wider choice and reduction, for 24 months with effect from 1st April 2017, of costs associated with each change to this contractual aspect).

With specific reference to the effects of the tariff reform on financial disadvantaged customers entitled to the social bonus, please note the significant positive changes introduced with the adoption of the Italian Ministerial Decree of 29th December 2016 (the value of the discount was increased from 20% to 30% of the an average user's expenditure and the ISEE value, i.e. the indicator that assesses the economic situation of the family on the basis of which the bonus is granted, has been increased from 7,500 to 8,107.50 euro).

The analyses carried out by the Authority in relation to expenditure changes affecting these customers, between 2016 and 2017, the implementation of the tariff reform, on the one hand, and the increase of the social bonus, on the other hand, have allowed the verification of how the latter is able to fully play its protective role, also fully mitigating the expenditure increases for domestic customers characterized by low annual consumption.

Reform of general charges for non-domestic customers

Article 3, paragraph 2, letter b), of Italian Decree Law of 30th December 2015, n. 210, as converted with Italian Law of 25th February 2016, n. 21, has instructed the Authority to *"adapt, from 1 January 2016 and all over the country, the structure of the tariff components related to general electricity system charges, applied to electricity customers for purposes other than domestic, to the criteria that govern the network tariff for electricity transmission, distribution and metering into force on the same date, while taking into account the different voltage levels and connection parameters, as well as the different types and features of the charges with respect to the tariff*".

The Authority has therefore initiated[83] a procedure for determining the tariff components relating to the general electricity system charges for non-domestic users and has also established that, pending the initiated procedure, the values of the tariff components, to cover the general system charges already approved for the first quarter of 2016[84] and subsequent updates, should be provisionally applied to non-domestic users, by way of advance and subject to adjustment, to be carried out in accordance with the procedures to be agreed with the measure at the end of the aforesaid process.

Consequently the Authority has only provisionally determined[85] the values of the tariff components to cover the general system charges for non-domestic users, by way of advance and subject to adjustment, throughout the year 2016 and from 1st January 2017.

[83] Resolution of 30th March 2016, 138/2016/R/eel.
[84] Established by resolution of 28th December, 657/2015/R/com.
[85] Resolutions of 30th March 2016, 139/2016/R/com, 28th June 2016, 352/2016/R/com, 29th September 2016, 534/2016/R/com, and 29th December 2016, 814/2016/R/com.

With the consultation launched in May 2016[86], in addition to illustrating the initial guidelines regarding the methods for implementing the provisions referred to in art. 3, paragraph 2, letter b), of the Italian Decree Law n. 210/15, the Authority has proposed:

- as regards the perimeter of application of the reform of the general charges, that the reform concerns the following set of components A_2, A_3, A_4, A_5, A_S, MCT, UC_4 and UC_7;
- the sum of the components TRAS, DIS, MIS and the equalisation components UC_3 and UC_6, as a reference structure for the definition of the new tariff structure for the above mentioned components.

Various alternatives for the new tariff structure to cover the general charges for non-domestic customers have therefore been proposed, more or less reflective of the tariff structure applied to network services, as provided for by legislation. In any case, the alternative hypotheses proposed have the following factors in common:

- a structure characterized by three rates: a fixed rate expressed in c€/withdrawal point/year, a unitary rate expressed in c€/kW/year and a unitary rate expressed in c€/kWh;
- the rates referred to in the previous point are differentiated by customers classes identical to those used for the purposes of the application of the network tariffs.

Article 6, paragraph 9, of Italian Decree Law of 30th December 2016, n. 244 as amended when converted into Italian Law of 27th February 2017, n. 19, has postponed the entry into force of the provisions relating to general electricity system charges for non-domestic users, from 1 January 2016 to 1st January 2018.

The Authority has therefore definitively confirmed[87] the values of the tariff components to cover the general system charges for non-domestic users, as determined previously[88], as well as the structure of the general system charges for non-domestic users throughout the year 2017.

Tariff regulation to incentivise investments in the RTN

In June 2016 the Authority confirmed[89] the achievement of milestones in strategic investments for the development of the National Transmission Network (RTN) for the year 2015, approved in January 2013[90], and updated in July 2015[91]. After having verified the achievement of the requirements for access to the incentive scheme, the Authority ordered payment, to the transmission network operator, of incentives for the acceleration of investments in fixed assets in progress as of 31st December 2015, relating to investments included under type I=3, to be enforced on the 2017 transmission tariffs.

[86] Consultation document of 24th May 2016, 255/2016/R/eel.
[87] Resolution of 9th March 2017, 126/2017/R/eel.
[88] Resolutions of 657/2015/R/com, 139/2016/R/com, 352/2016/R/com, 534/2016/R/com and 814/2016/R/com.
[89] Resolution of 24th June 2016, 335/2016/R/eel,
[90] Resolution of 31st January 2013, 40/2013/R/eel.
[91] Resolution of 30th July 2015, 397/2015/R/eel.

Exclusion of cross-subsidies in the supply chain

The requirements for administrative and accounting separation for companies operating in the electricity and gas sectors were introduced with the aim, among other things, of preventing companies operating in the electricity and gas sector from carrying out cross-subsidies between various activities of the supply chain. Over the course of 2016, the Authority neither initiated nor concluded proceedings to ascertain the violation of regulations on accounting unbundling in the electricity sector.

3.1.4 Cross-border issues

Investments in new infrastructure and consistency with EU development plans

Article 26 of Italian Law of 29 July 2015, n. 115, *Provisions for the fulfilment of obligations deriving from Italy's belonging to the European Union (*European Law 2014*))*, amended Italian Legislative Decree No. 93 of 1 June 2011, implementing the Third Energy Package, strengthening the Authority's powers and its independence from the Ministry of Economic Development.

As regards the ten-year electricity Network Development Plan, the Operator is required to submit the Plan annually to the Ministry of Economic Development and to the Regulatory Authority, who then submit it to consultation by actual and potential network users, making the results of the consultation itself public. For reviewing and monitoring the implementation of the Plan, the Authority also evaluates whether it meets all investment requirements, which are identified during the consultation process, and whether it is consistent with the non-binding Ten-year Network Development Plan on a European level. At the end of this process, the Authority must notify the Ministry of the outcome of its evaluation.

In November 2015, the Authority published the outline of the ten-year RTN Development Plan for 2015 on its websites, for the purposes of consultation process. On 20th January 2016, the Authority then organised a public session for presenting the outline, for the benefit of stakeholders representing the electricity system, which was attended by representatives of the Ministry of Economic Development, RSE, CESI (Italian Electrical Engineering Research Centre) and the Authority itself; while Terna arranged another public session for presentation of the same outline, on 15 June 2016.

In November 2016 the Authority formulated its opinion[92] on the outlines of the 2015 and 2016 ten-year RTN development plan, highlighting in particular:

- the improvements of the above Plan outlines, with respect to previous Plans, also resulting from the implementation of recommendations and comments previously made by the Authority[93], such as the presence of summaries of the main elements of information and of the characteristics of the network interventions, as well as preparation, by the operator, of a

[92] Opinion of 4th November 2016, 630/2016/I/eel.
[93] Opinions of 22nd May 2013, 214/2013/I/eel, and 21st May 2015, 238/2015/I/eel.

supplementary table to the outline of the ten-year Plan that, for each intervention, summarises the main information elements;

- the need to further improve the ten-year Plans both in terms of the wording in relation to the transparency and completeness of their information content, and in terms of the methodology in relation to the cost-benefit analysis, also in order to allow more prompt and effective evaluations of these Plans.

The Authority has transmitted the aforementioned opinion to the Ministry of Economic Development and has issued the approval of the outlines of the 2015 and 2016 Plans provided that:

- any installations of widespread storage systems, over the trial 35 MW already approved in the Development Plan 2011, are confirmed "under assessment", as it is expected that the judgment on this intervention cannot disregard the completion of the trial phase, the verification of the results of these trials and appropriate cost-benefit analyses which demonstrate the usefulness for the Italian electricity system;
- the Italy-Tunisia interconnection intervention is put back "under assessment", in order to foster the emergence of sufficient information elements which demonstrate its efficiency and effectiveness, as well as proof of its usefulness for the Italian electricity system, while hereinafter recognizing that the evaluation of the strategic nature of the intervention for the European energy system is the responsibility of the European Commission.

The Authority assessed the conformity between the Italian Development Plan and the EU Development Plan (*Ten Year Network Development Plan – TYNDP*), prepared in 2016 by ENTSO-E, the association of European transmission system operators, both with its own evaluation of the outline of the 2015 and 2016 plan and with the contribution of the work prepared by Agency for Cooperation between the Energy Regulators (ACER).

With regard to this conformity analysis, it should be noted that the TYNDP 2016 distinguishes between three categories of projects:

- medium term projects (planned with implementation date before 2022);
- long term projects (planned with implementation date after 2022);
- future projects (not planned, corresponding, for example, to projects "under assessment" in the Italian ten-year plan).

The Authority has also observed that:

- the project SA.CO.I. 3 for connecting Sardinia and Corsica with the Italian peninsula is "under assessment" in the outlines of the 2015 and 2016 ten-year plans, while the same intervention is present in the outline of TYNDP 2016 as a planned intervention;
- the outline of TYNDP 2016 includes a project for the development of widespread storage systems in Southern Italy, which are estimated to come into operation in 2022, with an investment cost of 750 million euro. For this project the Authority has indicated the need for installations that go beyond the 35 MW already carried out are confirmed as "under assessment".

The Authority has also contributed to the drawing up of ACER's Opinion of March 2017, also taking into account, in some cases, of the timing of entry into operation expected by the outline of the 2016 Development Plan, and made the following comments and recommendations:

- Italy-Tunisia: update the outline of the ENTSO-E TYNDP 2016 to classify Italy-Tunisia as "future project" and indicate the status as "under assessment";
- SA.CO.I. 3: Update the outline of the ENTSO-E TYNDP 2016 to classify SA.CO.I. 3 as "future project" and indicate the status as "under assessment";
- storage systems: Qualify Terna's project as "under assessment" in the ENTSO-E TYNDP 2016;
- Austria-Italy: the two interconnection projects on the Austria side should be separated, with the Nauders-Glorenza project as a medium-term project (instead of long term);
- Switzerland-Italy: the project should be classified as long term (instead of medium term);
- Strengthening Central Italy: the project should be classified as long term (instead of medium term);
- Slovenia-Italy: the project should be classified as "future project" and status "under assessment" as it is not approved in Slovenia.

Update of the requirements for the ten-year Development Plans and new cost-benefit analysis methodology for RTN development interventions

The Authority has defined[94] the criteria for the consultation of the ten-year RTN Development and the minimum requirements for the purposes of the Authority's assessments. In particular, among other things, the Authority has deemed the following appropriate:

- update the requirements and recommendations on how to prepare future plans starting from that relating to 2017, previously contained in Annex A to the Opinion of 22nd May 2013, 214/2013/R/eel, envisaging new minimum requirements in terms of the completeness and transparency of the Plans and the cost-benefit analysis methodology (so-called "Cost-benefit analysis 2.0"), in order to promote investment planning, according to criteria of selectivity and greater usefulness for the Italian electricity system;
- envisage that the transmission system operator shall apply, starting from the outline for the 2017 Plan, the cost-benefit analysis 2.0 methodology[95] in support of evaluations for which the Authority is responsible on the Plan outlines, as well as on the efficiency and economic nature of the interventions provided for therein;

[94] Decision of 4th November 2016, 627/2016/R/eel.

[95] This is an evolution of the cost-benefit analysis proposed by the Authority, aimed at orienting the incentive mechanisms for the transmission service on the basis of the actual usefulness for the electricity system (*output-based* approach), gradually phasing out the mechanisms in force until 2015 based on the cost of interventions (*input-based* approach). The methodology therefore offers a selective mechanism for investment promotion, selecting those with high usefulness and identifying the development priorities on the basis of the cost-benefit ratio and the usefulness of the investments themselves in the face of the inevitable uncertainties about the future.

- envisage that the transmission system operator shall extend the time frame of its forecasts on the electricity system development scenarios to a time period not less than 20 years later, in coherence with the time frames of the scenarios considered in the European TYNDP; moreover, ensure that the production of similar forecasts takes place every two years in order to ensure synergy and greater coherence with the scenarios described in the aforementioned European TYNDP;
- envisage that, by the 30th April 2017, Terna transmits a proposal for updating the Network Code on the network development and a proposal for a new Annex to the aforesaid Plan on the cost-benefit analysis 2.0 methodology for the preparation of the Plan itself to the Authority for approval;
- envisage that Terna transmits a periodic report to the Authority in relation to the coherence between the expected expenditure for annual investments and investments expected for the implementation of the Plan.

The Authority has also laid out[96] the minimum requirements of completeness and transparency for the ten-year Plan and the minimum requirements for the cost-benefit analysis 2.0. Furthermore, it should provide clear and transparent indication:

- on the planned development interventions, which constitute an integral and substantial part of the ten-year Plan;
- on the interventions "under assessment" or "under study", for which no implementation activities are envisaged within the horizon of the ten-year Plan and that can become "planned" interventions in the subsequent ten-year Plans;
- on the interconnectors (network developments according to art. 32 of Italian Law n. 99/09);
- on the merchant lines (private lines, developed by promoters other than the operator).

In particular, the ten-year Plan must include interventions developed by promoters other than the transmission system operator, providing a summary of the information published in the ENTSO-E TYNDP prior to the publication of the ten-year Plan. The promoters can transmit the latest information for their presentation in the Plan.

In relation to the minimum requirements for the cost-benefit analysis 2.0, the elements of the benefits analysis and other impacts related to transmission infrastructures have been updated in particular; Terna will assess and quantify the following benefits in the upcoming Plans:

- the variation (increase) of the socio-economic wellbeing related to the operation of the energy market;
- the variation (reduction) of network losses;
- the variation (reduction) of the expected not supplied energy;

[96] Annex to Decision 627/2016/R/eel.

- the costs avoided or deferred (or additional costs) related to the generation capacity subject to remuneration regimes that complement or replace the proceeds of energy markets and of the MSD, in the absence of double counting with the benefits B1 and B7;
- the greater integration of production from renewable energy sources;
- the investment avoided in electricity transmission infrastructure that would otherwise have been necessary in response to mandatory requirements (for example, respect of legal constraints);
- the variation (reduction or increase) of costs for network services and for the supply of resources on the MSD.

Terna can also separately evaluate, if deemed appropriate for certain specific interventions, the benefits related to:

- the variation (increase) of the system's resilience in the face of the impacts of extreme events;
- the variation (reduction) of the negative external effects associated with the increase in CO2 emissions ;
- the variation (reduction) of the negative impacts associated with the increase of other emissions, neither CO2 nor greenhouse gases.

Finally, in its ten-year development Plans Terna will quantify the effects related to:

- the increase of the interconnection or transport capacity between sections of the network (MW);
- the variation of the territory occupied by the electricity networks (km);
- the variation of occupation of areas of natural or biodiversity interest (km);
- the variation of the occupation of areas of social or landscape interest (km).

Allocation of transport rights on a monthly and annual basis

The Authority has approved[97] the *Harmonized Auctions Rules* (HAR) for 2017, i.e. the rules for allocating annual and monthly rights for using the transport capacity on the interconnection network in 2017. The HAR are adopted by the Authority as part of the voluntary and advance implementation of the provisions of Regulation (EU) 1719/2016 which establishes guidelines on forward capacity allocation (so-called *Forward Capacity Allocation* – FCA Regulation). In particular, the HAR valid for 2017 envisage the evolution, with a European approach, of the "firmness regime" for capacity rights, i.e. the rules with which the market operator that has purchased the rights is compensated economically as a result of the need of Transmission System Operators (TSO) to reduce the capacity that has already been granted for safety reasons. The specific rules

[97] Resolution of 29th September 2016, 530/2016/R/eel.

for the Italian borders are included in Annex 6 of the Regulation (*Regional Specific Annex: Italian Border*).

The HAR 2017 represent an evolution in relation to those applied in the previous year; in particular they:

- Extend the new market spread compensation regime (in the past compensation at auction price was envisaged) to the Italy-Austria border as well (the scheme had already been introduced in 2016 on an experimental basis on the borders with France and Slovenia);
- Introduce the cap equivalent to the annual congestion fees (in replacement of the monthly fees) on the border with Austria, France and Slovenia as an expenditure ceiling for the TSO for the compensation of usage rights for the cross-border capacity;
- Keep the previously applicable regime (compensation at auction price) where market coupling is not in force, therefore, with particular reference to the borders with Switzerland (where, moreover, the *Forward Capacity Allocation* regulation would not be applicable in so far as it is not a member country of the European Union) and with Greece.

In summary, the Authority's approval measure envisages full alignment with the provisions contained in *Forward Capacity Allocation* regulation for the borders on which market coupling is already active. In order to maintain the risk profile for the Italian system associated with the new of firmness regime unchanged, the TSOs operating on the Northern border have proceeded to remodel the volumes allocated to the border in the annual and monthly auctions, although always in the logic of maximizing, in their entirety, the interconnection capacity volumes made available to the market, according to the Regulation (EC) 714/2009 of the European Parliament and of the Council of 13th July 2009.

Pilot project for intraday market coupling between Italy and Slovenia (ID-IA)

The *Intraday Implicit Allocation* (ID-IA) is a bilateral pilot project for the implicit allocation of the transmission capacity to the Slovenian border (market coupling), similar to what has already been in force at the level of the MGP since 2011. The measures adopted for the implementation of the aforesaid pilot project are the following:

- The Authority has expressed its favourable opinion[98] on the proposed changes to the TIDME, arranged by the GME, aimed at enabling the start-up of intraday market coupling on the Slovenian border within the scope of the ID-IA project;
- The Authority has extended[99] a series of conventions and agreements, initially developed in the context of the day-ahead market coupling, to the ID-IA project. In particular, the Authority has approved:
  - The updated convention between GME and Terna;
  - The updated convention between GME and CSEA;
  - The contracts drawn up by partners of the ID-IA pilot project (BSP, ELES, GME and TERNA);

[98] Opinion of 7th June 2016 292/2016/I/eel.
[99] Resolution of 9th June 2016, 297/2016/R/eel.

- The new version of the rules for the intraday allocation of transmission capacity on the borders with France, Switzerland and Austria;

- The Authority has verified[100] the compliance of the contractual drafts prepared by GME and by Terna by the Slovenian Power exchange, that amend the existing agreements within the framework of market coupling, aimed at integrating the new payment changes in the Italian electricity market from 1st December 2016[101]. These changes are intended to make the anticipation of the payment deadlines on the MGP (day-ahead market) and on the MI (intraday market) possible, bringing the settlement phase from the current monthly frequency (M+2) to a weekly frequency (W+1).

The Authority's abovementioned acts[102] therefore constitute the regulatory structure of the ID-IA pilot project, prepared with the objective of testing a solution (implicit intraday allocation) that, for what is provided for by Regulation (EU) 1222/2015 of 24th July 2015 (Regulation CACM) in regional auctions, has received little attention at European level. This solution, inter alia, would solve the problem of the valuation of the allocated capacity in the MI, to which pure continuous trading - model of continuous trading provided for by the same regulation – does not currently offer a solution.

TERRE pilot project

The *Trans European Replacement Reserves Exchange (TERRE)* is a voluntary pilot project for the cross-border exchange of balancing electricity between TSOs. It was created as an advance implementation measure for the *Electricity Balancing Guidelines* (EB GL). These are the European Commission's future guidelines on electricity balancing, which recently received praise from the Committee as per Article 23, paragraph 1 of Regulation (EC) 714/2009, with the aim of testing the feasibility of the solutions envisaged therein.

The TERRE project partners are the TSOs of France, Great Britain, Italy, Spain, Portugal and Switzerland, who are supported by those of Ireland and Greece as observers. TERRE envisages the exchange between TSOs of balancing resources and, in particular, of the replacement reserve. Launched in 2014, the TERRE project concluded its planning phase in 2016 and is therefore in the process of entering the implementation phase, with the regulators' consent. The implementation phase of the project is planned to commence in the first few months of 2019.

In this context, the TERRE project partners sent the approval package to the regulatory Authorities involved in the initiative (AEEGSI, CNMC, CRE, ELCOM, ERSE and OFGEM) in June 2016. The approval package is a collection of documents which are useful for evaluating the whole project. In particular, the approval package consists of the following documents:

- the executive summary;
- the consultation document published by the TSOs;
- the analysis of the observations sent by the operators and of the TSOs' counter arguments;

[100] Resolution of 24th November 2016, 682/2016/R/eel.
[101] Opinion of 8th September 2016, 488/2016/I/eel.
[102] Opinion 292/2016/I/eel, resolution 297/2016/R/eel and resolution 682/2016/R/eel.

- the project implementation plan;
- the estimated costs for the implementation phase;
- the Memorandum of understanding between the TSOs;
- the non-disclosure agreement between the TSOs.

The regulators involved, including the Italian Authority, worked together to prepare a Common opinion, in order to express (their) support for the initiative and to invite the TSOs to proceed with the subsequent phases of the project.

The Common opinion analyses the TSOs' proposals as well as the position of the operators as a result of the consultation process organised in the spring of 2016 by the same TSOs. It also presents the expectations of the national regulatory Authorities.

On the basis of the contents of the Approval package documents and in light of the principles defined in the EB GL, the regulators' Common opinion is focused on the following aspects:

- evaluation of the TSOs' electricity balancing requirements, the algorithm for the identification of parties required to supply the service, and the interconnection capacity's modes of use;
- harmonisation of the products (such as formats and timings for the submission of bids and the activation of accepted offers) and settlement regulations between TSOs and between TSOs and service suppliers at the marginal price, without pricing caps or floors;
- implementation costs and benefits;
- transparency towards operators, both in the implementation phase and following the launch of the project;
- governance, both on a regional level and in the context of the Balancing stakeholders group managed by the ACER and the ENTSO-E, also in view of extending the project to include new members;
- implementation timings.

With reference to a series of elements which remain open, including the interaction between TERRE and the Italian market (MSD), the Common opinion requires TSOs to carry out necessary in-depth analyses during the project's implementation phase, in order to supply the regulators and operators with sufficient information before sending the second, and last, Approval package ahead of the relevant launch.

Although the full launch of the TERRE project is still rather far off, it is nevertheless possible to identify some of its impacts on the Italian market on the basis of its characteristics. Firstly, the resource known as the "replacement reserve" is already used by Terna to balance the system. The TERRE project will therefore lead to the identification of "products" associated with this type of resource, which must be harmonised with the other systems involved in the initiative.

However, Terna will manage the sending of offers to the central system and will therefore mediate between dispatching users and the centralised structure which, by means of the algorithm developed by the TERRE project, will identify the accepted offers that are able to meet the balancing requirements of the different TSOs. The results will be directly communicated to dispatching users in the format of dispatching orders.

Participation in the TERRE project could lead to a reduction in Terna's requirements for some balancing resources and allow some manufacturers to offer balance resources abroad.

Implementation of the regulation (EU) 1222/2015 on cross-border capacity allocation on a daily and intraday basis

National regulators founded a specific platform, called the Energy regulators' forum (ERF), in order to simplify the approval procedure for the detailed regulations, such as terms and conditions or methods, proposed by transmission system operators (TSOs) and/or Nominated electricity market operators (NEMO), as envisaged by the Capacity allocation and congestion management guideline (CACM) regulation which governs procedures for the allocation of cross-border transport capacity on a daily and intraday basis.

If an agreement is not established within the six months following the launch of the approval procedure, or on the regulators' initiative, the CACM envisages that the ACER should make a decision regarding the proposal within the following six months.

During 2016, the following approval procedures were carried out:

- the determining of the regions for capacity calculation;
- the Plan for the performance of Market coupling operator (MCO) functions;
- methods for communicating data on generation and load;
- methods for the European common network model.

On 17th November 2015, all TSOs in the European Union, coordinated by the ENTSO-E, presented a proposal for the configuration of the regions for capacity calculation (CCR) to all European regulators. Among other things, the proposal envisaged the assignment of Italian borders in two different regions: Italy North CCR (Italy-France, Italy-Austria, Italy-Slovenia) and Italy Greece CCR (Italy-Greece). Furthermore, the proposal assigned the border between Germany and Austria to the Central and Eastern Europe region (CCE). On 13th May 2016, the Austrian regulator E-Control unilaterally asked the TSOs to amend the proposal, so that the border between Germany and Austria would be excluded from all the borders for which the transport capacity allocation is envisaged. Later, on 17th May, the ERF informed the ACER that it was impossible for the national regulatory Authorities to unanimously agree on the proposal, and it therefore transferred the decision-making task to the ACER. On 17th November 2016 and by decision no. 6/2016, the ACER directly amended the TSOs' proposal, envisaging the fusion of the two regions previously envisaged by the TSOs into a single macro region (CORE), for the borders of Central Western Europe (CWE CCR) and Central and Eastern Europe (CEE CCR), respectively. Furthermore, the ACER planned for the Germany-Austria border to be included in the CORE region. The CCR, which was originally assigned the Italian borders, was not involved in the amendment process.

On 14th April 2016, the NEMO sent the Plan for the performance of MCO functions to the national Authorities. It was designed to establish the procedures and timings based on which the MCO functions were established and jointly carried out by the same NEMOs.

On 13th September 2016, the regulators agreed to send the NEMO a joint request for amendments to be made to the proposal. In particular, it was requested that an accurate implementation calendar and an impact evaluation of the other proposals related to the establishment and

performance of MCO functions be integrated into the Plan, in compliance with the contents of the regulation. Finally, it was asked that forecasts involving limitations to the individual responsibility of each NEMO and forecasts referring to the allocation and recovery of costs be removed.

The Authority sent the abovementioned request for modifications to the GME in October 2016[103].

On 14th December 2016, the NEMO sent a second Plan proposal which, however, was judged by the regulators to not be entirely in accordance with that which had been requested. Therefore, on 14th February 2017, the regulatory Authorities repeated their request for amendments.

On 15th June 2016, the TSOs presented the proposal of methods for communicating data on generation and load (GLDP) to the regulatory Authorities for their approval. Data on generation and load which can be requested by TSOs was identified in the proposal, in order to create a common grid model. Following the agreement reached by the regulators gathered in the ERF on 28th October 2016, the proposal was approved by the Authority with resolution of 24th November 2016, 683/2016/R/eel.

On 14th June 2016, the TSOs presented the proposal of methods for the common grid model (CGM) to the regulatory Authorities for their approval. However, the proposal was found to not be entirely compliant with that which was required by the regulation. In particular, the proposed methods contained the indication of deadlines for the preparation of the common grid model, which consequently imposed a restriction on the future presentation of terms and conditions concerning the organisation of the MI session. For this reason, the regulators gathered in the ERF on 13th December 2016 agreed to request an amendment to the proposal. On 28th December 2016 the Authority made the amendment request to Terna[104].

Electricity exemptions

In May 2016, the Authority approved[105] the *Opinion on the Piemonte Savoia exemption application* document, which expresses a favourable opinion towards the exemption request submitted by the company Piemonte Savoia, on behalf of industrial organisations selected by Terna in the framework of the regulation envisaged by Italian Law no. 99/09 in relation to the development of new interconnections abroad. In particular, the exemption concerns a 350 MW power quota, generated by a subdivision of the two power lines built in Italy which belong to the wider *Piossasco – Grand'Ile Interconnection* project. The exemption was requested for a period of ten years, pursuant to art.16, clause 6, of regulation (EC) 714/2009 which relates to the management of revenue originating from the allocation of interconnection capacity, and to Article 9 of Directive 2009/72/CE of the European parliament and Council of 13th July 2009. The *Piossasco – Grand'Ile Interconnection* project, which is envisaged to start operating at the end of 2019, plans for the construction of two high voltage direct current (HDVC) power lines, with an overall nominal power of 1,200 MW. They will connect the electrical power stations of Piossasco in Italy and Grand'Ile in France.

[103] With the resolution dated 14th October 2016, 568/2016/R/eel,
[104] Resolution of 28th December 2016, 812/2016/R/eel.
[105] Resolution of 12nd May 2016, 228/2016/I/eel.

In December 2016, the Authority issued a favourable opinion[106] to the Italian Ministry of Economic Development, pursuant to Italian legislative decree no. 93/11, which concerned the exemption request presented by the company Monita Interconnector, on behalf of industrial organisations selected by Terna on the basis of Italian Law no. 99/09 in relation to a 300 MW power quota, generated by a subdivision of the Villanova-Lastva project and for a duration of ten years. The Villanova-Lastva project, which is expected to start operating at the end of 2019, envisages the construction of two high voltage direct current (HVDC) power lines with an overall nominal power of 1,000 MW between Villanova (in the Italian municipality of Cepegatti, Pescara) and Lastva (Montenegro). Since it concerns an interconnection with a government outside of the European Union, the company Monita Interconnector's request was considered as a request for exemption from the regulation which envisages third party access as per Article 1.5, paragraph 6 of Italian Law no. 290 of 27th October 2003.

International coordination with other regulators and ACER

During 2016, the Authority continued working in partnership with other European regulators both on a multilateral level, by means of the Agency for the Cooperation of Energy Regulators (ACER), the Council of European Energy Regulators (CEER) and regional Initiatives, and by means of bilateral meetings organised ad hoc in order to expand the discussion of topics of common interest. This was designed to define transparent and effective regulations for the promotion of a competitive and efficient integrated European energy market, as required by the Third Energy Package.

The European Agency for the Cooperation of Energy Regulators

With regard to the electricity sector, over the past year the Authority has been involved in the supervision of infrastructure management and the development and implementation of European network codes, carried out by the respective ACER working groups. In particular the drafting of:

- the ACER Recommendation on methods for calculating cross-border transport capacity in the context of the implementation of Regulation (EU) 1222/2015;
- the ACER Decision on the proposal of all European TSOs, in relation to the definition of regions for capacity calculations for the implementation of Regulation (EU) 1222/2015;
- the ACER Opinions on analyses prepared by ENTSO-E in the context of the Winter and Summer Outlook;
- the ACER Opinion on the performance of investments in transmission infrastructures.

During 2016, the Authority actively contributed to the activity of the ACER and CEER working groups in order to promote a coordinated approach to the implementation of the REMIT regulation. Among other things, it contributed to the revision work of the Centralised European Register of Energy Market Participants (CEREMP), to the constant updating of the Market Monitoring Handbook, which is a manual for internal use by regulators for the management of

[106] Resolution 701/2016/I/eel.

REMIT cases, to the processing of Q&A clarifications and guidelines to encourage the correct and uniform application of the REMIT's regulations, as well as to the monitoring of the development of financial legislation for aspects relevant to the correct functioning of electricity markets.

During 2016, the Authority also worked towards guaranteeing the adaptation of safety protocols for the internal management of data, in compliance with standards shared in a European setting. In particular, the Authority adopted[107] fundamental principles for the secure management of information and data received in compliance with regulations established by ACER, in order to guarantee the exchange of confidential information with other national regulating Authorities.

Finally, the Authority contributed towards the provision and validation of data and information in its possession, by participating in monitoring activities which were substantiated in 2016 through the publication of the following reports:

- Annual Report on ACER's activity;
- Annual Report on the implementation of REMIT;
- Report on the state of congestion at cross-border interconnection points;
- Report on the monitoring of wholesale and retail markets for electricity and natural gas;
- Report on the state of progress of regional Initiatives.

Council of European Energy Regulators

The CEER, an independent association of national energy regulatory Authorities, includes members who not only represent countries in the European Union, excluding Slovakia, but also Norway, Iceland and, as observers, Switzerland, Montenegro, the FYROM (or Republic of Macedonia), Kosovo and Moldova. During 2016, the Authority contributed towards the preparation of some reports concerning the planning of capacity markets and, in particular, towards the joint ACER – CEER response to the European Commission as part of the Sector Inquiry on mechanisms for capacity remuneration, and towards the CEER's report on the participation of foreign resources in the markets. Furthermore, the Authority worked extensively in the context of defining resources and services for the flexibility of electricity systems, with special emphasis on the CEER's Position paper on the development of flexibility.

Another area of activity which the members of the CEER, including the Authority, were involved in is the reinforcement of the role played by electricity market consumers. In particular, the CEER analysed the different causes which impede the switching process, for example the existence of restricted contractual conditions such as charges for the early termination of the contract, or the mistrust harboured by consumers in regard to new suppliers. The results of the abovementioned analysis were presented during the Annual CEER Consumer Conference held on 11th July 2016 in Brussels. During this conference, a new project called the Partnership for the Enforcement of Energy Rights (PEER) was launched by the CEER. It aims to create a permanent platform for the exchange of information between institutions and regulators, also from other sectors, on topics concerning the rights and the protection of consumers.

[107] With the resolution of 17th March 2016, 108/2016/A.

The Authority also participated in the round table in Madrid on 25th and 26th April 2016, organised by CEER and the NARUC – National Association of Regulatory Utility Commissioners - to discuss topics of common interest in regard to a new energy system. Furthermore, it supported the CEER's activities concerning the examination of the DSOs' new role in the electricity market. In particular, CEER published a report which tackles the topic of relations between DSOs and TSOs in a future scenario characterised by considerable technological changes. The abovementioned report aspires to identify the regulatory framework in which such a report may evolve in order to ensure efficient planning and operative management of the grids.

Finally, the Authority directly contributed to the redefinition of CEER's international strategy with the regulators and associations of countries outside of the European Union, also through the direct participation of board members. In particular, regarding relations with MEDREG (Mediterranean Energy Regulators), please refer to the paragraph dedicated to this institution.

Relations and initiatives with Countries outside of the European Union

As in previous years, the Authority has continued to give momentum to its own involvement in an international setting. It has maintained on-going communications and institutional cooperation on a multilateral and bilateral level, in order to encourage the harmonisation of European regulations with those of Countries which, although being outside of the European Union, are the preferred interlocutors in the energy sector. In accordance with the abovementioned approach, the Authority collaborated and liaised with European and international institutions in order to contribute to the removal of obstacles that impede or slow down the sharing of common regulations in the energy sector. The Authority promoted operations for reinforcing its own role as reference regulator in the Balkans and the Mediterranean basin, these being geographical areas of primary importance for the Italian electricity system. The operations were promoted by virtue of growing business activity in terms of investments in electricity infrastructures which are already in progress or planned to take place in the next few years, and which require an appropriate and stable regulatory scenario as a reference point.

The energy market in South East European Countries

Also in 2016, the Authority contributed to the implementation work of the Treaty which establishes the Energy Community (EnCT) of South East Europe. It participated in the ECRB Energy Community Regulatory Board's plenary meetings, in the meetings of the three working groups – Electricity Working Group, Gas Working Group and Customer Retail Working Group – and in the two electricity and gas forums in Greece and Slovenia respectively, which have the purpose of sharing the decisions made on an institutional level with sector stakeholders and managing the process.

In particular, the activities were focused on reinforcing the cooperation between the ECRB and ACER, on the distribution of respective responsibilities and on the participation of the Contracting parties' country representatives in the ACER working group meetings, which effectively implemented the Third Energy Package in both the primary and secondary legislation. In March 2017, the Montenegrin regulator REGAGEN was officially permitted to participate as an observer in these working groups. A Memorandum of Understanding (MoU) was also signed by ACER and the Secretariat of the Energy Community, in order to govern the participation of the Secretariat's representatives in ACER working group meetings.

Some modifications to the Energy Community's Treaty were proposed during the year. They included the addition of a switch clause designed to encourage reciprocity between Contracting parties and European Countries, particularly in regard to the direct applicability of the European legislation to the same Contracting parties' national legal systems.

The Authority then participated in the third ECRB-MEDREG round table on 27th September 2016 in Athens.

As regards the electricity sector in further detail, during the Electricity Working Group chaired jointly by Italian and Serbian regulators between December 2014 and December 2016, it was decided that the Authority would also be entrusted with the coordination of the task force for the opening of wholesale electricity markets in the Balkans.

More specifically, the Authority made itself the promoter of the future transposition and implementation, among contracting parties, of the Regulation (EU) 1222/2015, in line with the European Commission's recommendations, and in terms of capacity allocation and congestion management (CACM). The CACM regulation is the legal basis for the development of market coupling in Europe. The ECRB has already proposed to the Permanent High Level Group to transpose the CACM in the Contracting parties' legal framework, subject to formal approval from the European Commission.

The development of competitive electricity markets received renewed impetus following the Berlin procedure, known as Western Balkan 6[108] (WB6). Among its various aims, it plans to encourage the development of mechanisms for electricity day-ahead market coupling in the six Balkan countries (Albania, Bosnia and Herzegovina, Macedonia, Kosovo, Montenegro and Serbia).

On 27th April 2016, energy ministers, regulators, TSOs and Power Exchange regulators from WB6 Countries signed a MoU, in which both general cooperation principals and concrete actions necessary for the development of the regional electricity market were established. The MoU is not legally binding, but refers to future binding agreements for the parties. The end goal consists of integrating the markets of WB6 Countries with the markets of European Union Member States participating in the Multi-Regional Coupling (MRC) project, which includes Italy. To this end, coordination between the Energy Community's Contracting parties (EnC) and neighbouring Member States is envisaged. It is hoped that there will be a close cooperation with the latter in order to facilitate the integration process.

The MoU also envisages the possibility of regulators, TSOs and Power Exchange regulators in neighbouring Member States to participate under equal conditions. To this end, the Italian regulator decided to sign the MoU on 5th September 2016, thus joining the activities associated with the MoU's implementation. This includes participating in the Programme Steering Committee (PSC), the first meeting of which took place in Belgrade on 21st September 2016.

The PSC's main aim is to approve and initiate the Day Ahead Market Integration Programme (DAMI Programme).

[108] Launched during the conference of the western Balkan States on 28th August 2014 in Berlin, the Berlin Process, also known as Western Balkan 6 Process-WB6, is a diplomatic initiative for intergovernmental cooperation, promoted by the German chancellor Angela Merkel and designed for the future inclusion of the Balkans in the European Union. The initiative, which has become periodic and will develop over a period of five years, was repeated on 27th August 2015 in Vienna and on 4th July 2016 in Paris. In 2017, the summit will be hosted in Trieste, Italy.

During the last WB6 summit, the European Commission decided to finance the DAMI, by means of stipulating a grant contract with the Energy Community's Secretariat. The abovementioned funding will be used to promote technical assistance activities in the context of projects belonging to the DAMI programme.

With regard to topics concerning the retail market and consumer protection, the Customer and Retail Market Working Group (CR WG) focused on the subject of the Alternative Dispute Resolution (ADR), with the publication of the "Alternative Dispute Resolution in the Energy Community Contracting parties, Italy and Georgia – Status Review April 2016". The latter reviews the legislation and procedures in force in each Country, with particular but not exclusive reference to disputes between suppliers and final customers, and between the latter and distributors.

Mediterranean energy market

During 2016, the Authority maintained its own international involvement in the Mediterranean basin, particularly by means of the MEDREG, of which it is a founder and promoter.

On 18th May, the 21st MEDREG General Meeting took place in Malta and was hosted by the Maltese Regulator for the Energy and Water service – REWS. During the meeting, documents concerning the action Plans of the three Euro-Mediterranean platforms for electricity, gas and renewable energy were approved. The roadmap shared with MEDREG for the development of the electricity market in the Mediterranean area was presented. Furthermore, two documents concerning the long term strategy, or Implementation plan, and short term activities for 2017, or Action plan, were approved with reference to both the institutional and technical-regulatory aspects.

During the meeting, it was then decided that MEDREG would draw up an activity Plan which would respond to the national requirements of its members, particularly those of the southern Mediterranean, in a more structured and complete manner, in order to promote a tailor-made approach for the support of energy development policies, contributing to both a consolidation of the regulators' role and to necessary market reforms. The General Meeting approved the establishment of an ad hoc task force for regulatory reforms, and relevant ToRs, which is part of the Institutional Working Group (INS WG).

Alongside the MEDREG General Meeting, the second edition of the CEER-MEDREG round table was carried out[109]. The meeting was an opportunity to evaluate possible new forms of collaboration between the two regional Associations, in order to encourage the integration of energy markets in the southern and northern boundaries of the Mediterranean.

The 22nd MEDREG General Meeting took place on 30th November, organised by the Authority and hosted by the Italian Ministry of Foreign Affairs and International Cooperation, during which its ten-year anniversary was celebrated. During the meeting, two new Vice Presidents were elected, the Turkish regulator (EMRA) and the Jordanian regulator (EMRC), while the Italian Authority saw its role as permanent Vice President reconfirmed.

During the Union for the Mediterranean's (UfM) Ministerial Meeting on Energy on 1st December 2016, the Ministerial Declaration concerning the implementation of Euro-Mediterranean platforms for electricity, gas, renewable energy sources and energy efficiency was adopted.

[109] The first MEDREG General Meeting was carried out in 2013 in Grasse, France.

MEDREG's role is recognised by the European Commission, which finances the Association with a service contract worth three million euros. The contract was extended until the end of 2017.

In regard to the activity carried out, the Electricity Working Group (ELE WG) co-chaired by French (CRE) and Algerian (CREG) regulators, developed the third Mediterranean Electricity Markets Observatory Report, in which the evolution of electricity markets in the Mediterranean was described. Particular attention was paid to possible obstacles to competition and to strategies for their removal. Furthermore, the ELE WG formed a partnership with the Mediterranean Association of TSOs (Med-TSO).

Activities on the energy platforms promoted by the European Commission, were given a decisive boost thanks to the political support of governments participating in the Union for the Mediterranean, which was shown during the meeting of energy ministers on 1st December 2016 in Rome.

As regards the electricity platform, the Authority is involved as an active member of MEDREG, together with the Mediterranean Association of TSOs (Med-TSO), in defining the work schedule for the progressive and gradual integration of electricity markets. The main aims are: an analysis of structures and levels of electricity market opening, potential coordination in infrastructural development with the aim of defining a common vision, the promotion of a transparent, stable and harmonised regulatory framework with, for example, the definition of common technical regulations, such as the allocation of transmission capacity.

The approach taken is based on a sub-regional scale for the identification of circumscribed zones for the integration of systems and/or electricity markets, known as Interconnected Electricity Exchange Zones (IEEZ), with new power lines or through the increased use of existing infrastructures, and with the identification of possible projects of common interest which may benefit from suitable support from governments and financial institutions. The Authority's contribution particularly concerns the creation, by means of the INS WG guide, of the overall electricity sector regulatory framework for Mediterranean Countries, known as the MEDREG Regulatory Outlook, which will be completed in 2017. Also, the joint work programme of the two associations, MEDREG and Med – TSO, envisages both a mapping of necessary infrastructures and identification criteria related to projects of common interest, and preliminary methods for the identification of areas to be interconnected. Once these areas are identified, the programme will proceed with the construction and the extension of the approach to entire sub-regions.

3.1.5 Compliance

Over the past year, no legally binding decisions have been made by the Agency or the Commission that the Authority has had to implement pursuant to Article 37.1.d) of the Directive 72/2009/CE. As far as concerns regulator competences and powers pursuant to the regulations in force, please refer to the 2013 Report and to the regulatory innovations reported in Paragraph 2.

3.2 Promoting competition

3.2.1 Wholesale markets

Table 3.4 shows the balance of electricity in Italy, with details of resources in 2016 compared with those of the previous year. The data provided by Terna shows provisional values for 2016. The demand for electricity dropped by 2.1% compared to the previous year, going from 316.9 TWh in 2015 to 310.3 TWh in 2016.

National production, which increased by 1.2%, covered an overall national requirement quota of 89%, compared to a final amount of 86% in 2015. Imports decisively decreased in comparison to the previous year, going from 50.8 TWh in 2015 to 43.2 TWh in 2016, therefore showing a reduction of 15.1%. In contrast, exports increased by 37.7%, especially those towards Greece and Malta, and reached 6,155 GWh in absolute terms.

Table 3.4 Terna's balance of electricity in Italy in 2015 and 2016

GWh

	2015	2016(A)	% VARIATION
Net production	272,428	275,649	1.2%
Received from foreign suppliers	50,849	43,181	-15.1%
Sold to foreign customers	4,471	6,155	37.7%
Destined for pumping	1,909	2,424	27.0%
Availability for consumption	316,897	310,251	-2.1%

(B) Provisional data.

Source: AEEGSI processing of Terna data

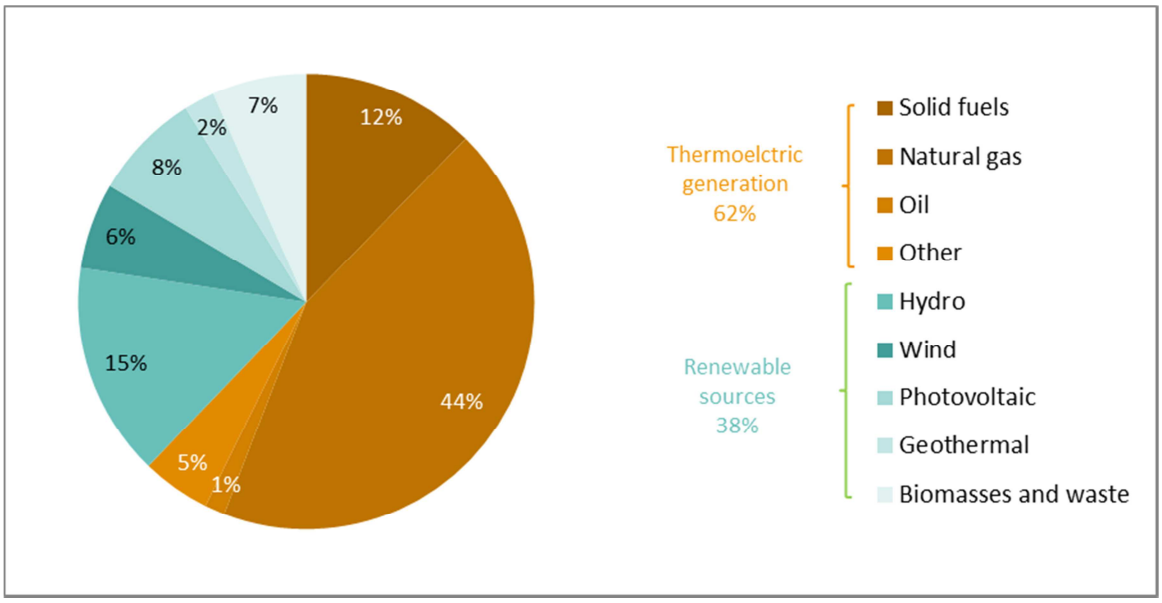
After years of continuous reductions, the gross national product increased for the consecutive year, going from 283 in 2015 to 289.3 TWh in 2016 (+2.2%).

Thermoelectric production contributed to this increase, and grew by around 4% compared to the previous year. Natural gas experienced a more significant increase (+13.7%), while the use of coal decreased considerably (-17.6%) and the use of petroleum products decreased even more (-26.6%).

Thermoelectric production satisfied the increased internal demand, also considering the drop in imports from France in the last quarter of the year, which caused the unavailability of around a third of nuclear power stations beyond the Alps during that period. The French Authority for the supervision of nuclear safety imposed safety tests on plants For this reason power stations remained temporarily closed.

Thermoelectric production also faced the further reduction in the production of sources (-1.1%), although it was much more contained than that of recent years. Due to these dynamics, in 2016 thermoelectric production covered 62% of total production, whereas renewable energy sources guaranteed the remaining 38%, which was 39% in 2015 and 43% in 2014. While overall the production of renewable energy sources decreased, as mentioned above, the growth of wind power was decisively significant (+19%), while a decrease was observed in both hydroelectric power (-7.2%) and photovoltaic energy (-3.7%) compared to 2015.

Figure 3.1 Gross production in 2016 by source



Source: Terna, provisional data.

Table 3.5 Development of the wholesale market

YEAR	DEMAND(A) (TWh)	PEAK DEMAND (GW)	NET INSTALLED CAPACITY (GW)	CORPORATE GROUPS WITH A>5% SHARE IN NET GENERATION	% SHARE FOR NET GENERATION FOR TOP 3 GROUPS
2001	304.8	52.0	76.2	4	70.7
2002	310.7	52.6	76.6	3	66.7
2003	320.7	53.4	78.2	4	65.9
2004	325.4	53.6	81.5	5	64.4
2005	330.4	55.0	85.5	5	59.4
2006	337.5	55.6	89.8	5	57.1
2007	339.9	56.8	93.6	5	54.7
2008	339.5	55.3	98.6	5	52.0
2009	320.3	51.9	101.4	5	50.6
2010	326.2	56.4	106.9	5	48.2
2011	332.3	56.5	118.4	4	43.6
2012	325.5	54.1	124.2	3	41.2
2013	316.0	53.9	124.7	3	39.1
2014	308.2	51.6	121.8	3	41.2
2015	315.0	60.5	118.3	3	40.1
2016(B)	307.8	53.6	113.9	4	39.3

(A) Net energy destined for pumping and before grid losses.
(C) Provisional data

Source: AEEGSI processing of Terna data and Annual Survey on Regulated Sectors.

In terms of shares for total renewable energy production, hydroelectric power decreased from 41.8% to 39.2% between 2015 and 2016 in favour of wind power, which increased from 13.6% to 16.4%. The other sources essentially remained consistent, apart from a slight decline in photovoltaic energy, from 21% to 20.5%.

Apart from Enel, whose market share slightly decreased, all the other larger corporate groups for electricity generation in Italy highlighted stable or increased shares compared to those of the previous year. In particular, the most significant increase was recorded by Edison, whose share increased from 6.5% to 7.9%, and by A2A, which had an increase of 3.0% to 5.1%. This therefore placed them under the category of corporate groups with a net generation of at least 5% (Table 3.5). A2A grew thanks to their acquisition of Edipower, whose plants were entirely transferred to the Milanese group at the start of 2016. In more detail, after A2A purchased the entire share capital of Edipower, the latter sold its 5 plants to two of A2A group's companies in July 2016. Finally, Edipower was incorporated into A2A at the end of the year.

The decrease in domestic demand and the interruption of French nuclear power stations during the last half of the year, caused a drop of -20.2% decrease registered in net electricity imports in 2016. In fact, in 2016 the foreign balance reduced by 9.4 TWh, and stood at 37 TWh compared to 46.4 TWh in 2015.

Gross imports decreased by 15% compared to 2015, with 50.8 TWh reduced to 43.2 TWh. Conversely, Italy exported 1.7 TWh more than it did in 2015, with exports growing by 38% and increasing from 4.5 to 6.2 TWh. Therefore, the percentage of domestic demand covered by foreign balance went down to 11.9% in 2016, compared with 14.6% in 2015. Net of exports, in 2016 we imported less energy from Switzerland, (-5.2 TWh, namely 20% less compared to 2015), from France, (-2.3 TWh, namely 14% less compared to 2015), and from Austria, (-95 GWh or 6% less compared to 2015).

Despite the overall reduction and the different amounts imported from neighbouring countries, Switzerland was also the Country from which the majority (53.1%) of our foreign balance originated in 2016. Another 35% of net imported electricity came from France and 17% from Slovenia. Only 3.7% came from Austria. Market coupling has been operating with Slovenia, France and Austria for some time.

In 2016, overall net power stood at 114 GW (Table 3.5), which was divided between 46% renewable energy and 54% thermoelectric power, whereas the available net capacity, for at least 50% of the hours, was 91.9 GW. Peak demand took place in July, when peak power requirements reached 53.6 GW (60.5 GW in 2015) whereas the winter peak was 53 GW (51.2GW in 2015).

With reference to the net installed capacity, there were four operators with a market share of more than 5%: Enel (24.3%), A2A (7.9%), Edison (6%) and Eni (5%). The percentage of capacity held by the first three operators was 38.2%, which was a slight increase compared to 2015 (36.8%). The HHI index related to the net installed capacity highlights a decrease in market concentration. Indeed, the value related to 2016 is 759, whereas it was 821 in the previous year.

As regards the net available capacity, for at least 50% of the hours, in 2016 the number of operators with a market capacity of more than 5% also increased to 4, one more than in 2015: Enel (27.8%), A2A (9%), Edison (6.5%) and Eni (5.9%). On the basis of this data, the percentage of capacity held by the first three operators was 43.2%. The HHI index concerning available net capacity was 985 in 2016, which was a decrease compared to 2015 (1,050).

As regards to the corporate composition of production operators who responded to the Annual Survey on Regulated Sectors in 2016, and limiting the observation to first level direct participation,

share capitals were predominantly held by individuals (56.5%), then by different companies (30.5%) and by public bodies (5.0%), whereas the share of foreign energy companies was 1.2%. In comparison with the previous year, the share of companies run by individuals increased (51.6% in 2015), whereas both the shares held by different companies (34.1% in 2015) and by public bodies (5.3% in 2015) decreased. Conversely, in relation to the previous year, the origin of shareholders which held the share capital of electricity production companies was not different. 93.4% of share capitals were in the hands of Italian shareholders and out of the remaining 6.6%, 2% were German shareholders, whereas 1.6% were from Luxembourg[110].

In Italy, electricity production plants powered by renewable energy sources benefit from different incentive mechanisms which use various procedures, such as feed in tariff incentives[111] and feed in premium incentives[112]. The incentives allowed the incentivising of an amount of electricity which stood at around 66 TWh in 2016, compared to 65 in 2015.

Costs originating from the incentivising of renewable energy sources are covered by tariff component A_3, with the sole exception of the costs associated with negotiated Green Certificates, which are re-paid by electricity market prices. As of 2016, due to the default of Green Certificates, all costs originating from the incentivising of renewable energy sources are only covered by tariff component A_3.

Overall, it is estimated that at the end of 2016, final costs originating from the incentivising of renewable energy sources equalled approximately to 13.6 billion euros, compared to 12.5 billion in 2015. In addition to paying these costs, tariff component A_3 also allows the distribution of special commercial regimes with guaranteed minimum prices and on-the-spot trading. It also allows the distribution of incentives planned for similar sources, pursuant to measure CIP6, as well as for cogeneration plants combined with district heating powered by non-renewable energy sources and limited to Green Certificates not subject to organised market negotiations.

The structure of the electricity market

The Energy Markets Operator (GME) deals with the management of energy markets divided into Spot Energy Market (MPE) – in turn divided into the Day-Ahead Market (MGP), the Intra-Day Market (MI) and the Dispatching Service Market (MSD) – and the Electricity Futures Market (MTE), which requires the mandatory physical delivery of energy. The GME also manages the platform for the physical delivery of financial contracts concluded on IDEX (platform for Energy Derivatives Delivery – CDE), an Italian Power Exchange market derivatives segment for the negotiation of energy futures financial contracts.

The energy market has been affected by several new developments over the last two years. In February 2015 Multi-Regional Coupling (MRC) was started on the North Italian border with France, Austria and Slovenia. MRC is a market coupling process that introduces implicit auction models to replace explicit daily auctions, coordinating the allocation of energy capacity and sale, therefore

[110] Shares are calculated without any weighting.
[111] *Feed in tariff* means that the recognised incentive for electricity entering the grid includes selling electricity which does not then remain available to the producer. The electricity input into the network is withdrawn at a price that already includes the incentive.
[112] *Feed in premium* means that the recognised incentive for produced electricity does not include selling electricity which remains available to the producer.

facilitating both the integration of the various markets thanks to an optimal exploitation of the Net Transfer Capacity – NTC and the cancellation of uneconomical flows[113]. At the moment the explicit auctions for the allocation of part of the capacity at monthly and annual levels remain in place.

Furthermore, starting from the 1st February 2017, the MI has seen the increase of two further sessions: the MI6 and MI7. In fact, until 2016, the MI consisted of five sessions (MI1, MI2, MI3, MI4, MI5) structured as auctions with equilibrium price where, unlike the MGP, both the sale and the purchase price are valued at the zonal price.[114].

Following the integration of the spot markets (MGP and MI) into the European coupling projects, the reduction of the payment due dates from two months to one week has become necessary for the GME to be able to face the financial requirement necessary to balance the cross-border payments that occur at two days. In view of the need reported by many operators to be able to continue to negotiate daily products, keeping the payment at the second month after the exchange month, starting from 29th September 2016 the Daily Product Market (MPEG) was established, where all the operators in the electricity market can continuously trade daily contracts with different profiles (baseload and peakload). At the moment, the operators can offer volumes at prices expressed only as differentials with respect to the effective average PUN for the delivery date of the product being traded.

Trading on the Italian Power Exchange and bilateral trading

In 2016 the amount of electricity exchanged in the Italian System amounted to approximately 290 TWh, substantially stable (+0.6%) compared with 2015 (287 TWh), thereby confirming that the downward trend observed in the years from 2010 to 2014 had run its course (**Errore. L'origine riferimento non è stata trovata.**).

At a zonal level contrasting dynamics were observed; the purchases of the central zones of the mainland (Centre-North +5.9%, Centre-South +2.3%) and Sicily (+5.7%) increased, while a decline was seen in the purchases of the other zones, including the South (-12.3%).

The volumes exchanged in the Power Exchange were however on the up, having risen to 203TWh (+3.9%), the highest level in the last seven years, excluding the peak of 2013. The growth appears to be supported by domestic non-institutional operators (+14.4%) on the sales side, while on the purchasing side a greater demand from the Single Buyer (+28.2%) and exports (+67.5%) contributed. On the contrary, the programmes derived from registrations on the PCE of the bilateral over-the-counter exchanges decreased to 87TWh (-6.4%) and close to the historical minimum in 2013 (**Errore. L'origine riferimento non è stata trovata.**).

[113] Hours in which the flow occurs from the most expensive zone to the less expensive zone, i.e. in the direction opposite to the one that the price differential would suggest.

[114] Those who purchase must pay the "non-arbitrage fee" that corresponds to the differential between the zonal price of the MI and the PUN, by paying the PUN after this fee.

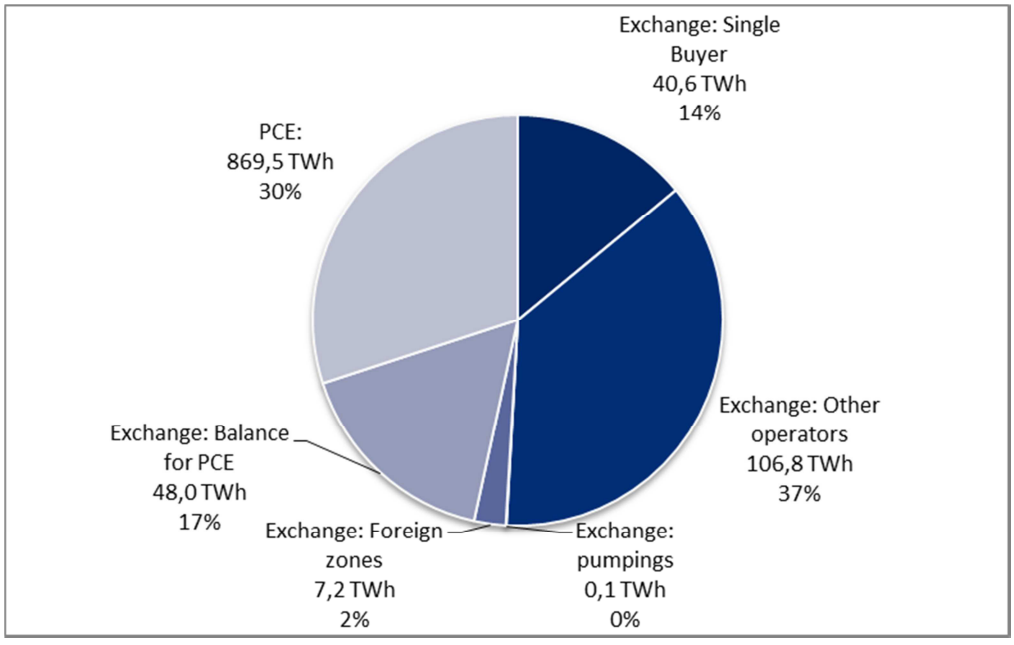
Table 3.6 Electricity market

TWh

YEAR	TRADING ON HE MGP		
	Total	*Power Exchange*	*Bilateral Trading*
2004	231.6	*67.3*	*164.3*
2005	323.2	*203.0*	*120.2*
2006	329.8	*196.5*	*133.3*
2007	330.0	*221.3*	*108.7*
2008	337.0	*232.6*	*104.3*
2009	313.4	*213.0*	*100.4*
2010	318.6	*199.5*	*119.1*
2011	311.5	*180.4*	*131.1*
2012	298.7	*178.7*	*120.0*
2013	289.2	*206.9*	*82.3*
2014	282.0	*185.8*	*96.1*
2015	287.1	*194.6*	*92.5*
2016	289.7	*202.8*	*86.9*

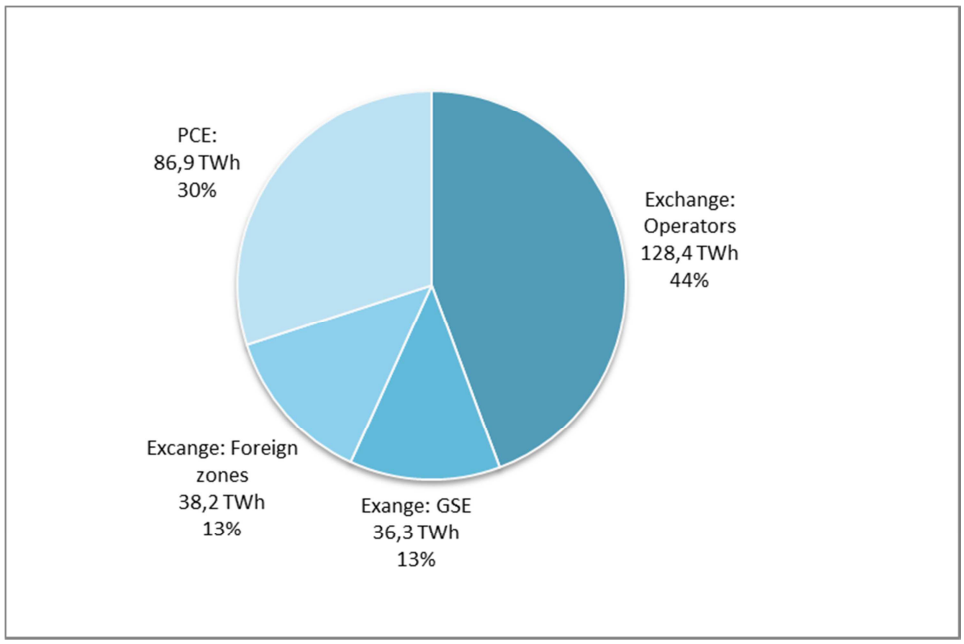
Source: AEEGSI processing on GME data.

Figure 3.2 Composition of electricity demand in 2016



Source: AEEGSI processing on GME data.

Figure 3.3 Composition of electricity supply in 2016



Source: AEEGSI processing on GME data.

Table 3.7 Bilateral contracts on the MGP

TWh

CONTRACTS	2011	2012	2013	2014	2015	2016
Bilateral contracts	131.1	120.0	82.3	96.1	92.5	86.9
National	148.8	146.9	156.8	162.5	143.5	134.9
Single Buyer	*36.8*	*38.8*	*43.9*	*37.9*	*29.1*	*17.6*
other operators	*112.0*	*108.1*	*112.9*	*124.6*	*114.4*	*117.3*
Foreign	0.4	0.5	0.1	28.5	0.1	0.03
PCE programme final balance(A)	-18.1	-27.4	-74.6	-66.5	-51.0	-48.0

(A) In each period of relevance, this is the difference between the sum of the input programmes and the sum of the withdrawal programmes, shown by the Energy Accounts Platform (PCE), recorded on the MGP. The final balance of the PCE programmes is also equal to the algebraic sum of the physical final balances of energy accounts (input and withdrawal).

Source: AEEGSI processing on GME data.

Operations of concentration in electricity generation in 2016

Among the main corporate operations undertaken in 2016, the most significant in the context of electricity generation concerned the transfer of Edipower's assets to A2A, as previously mentioned.

Some other operations involved smaller electricity generating companies; also note the decommissioning of some thermoelectric production sites owned by the Enel group for a total of 3.2 GW of gross power.

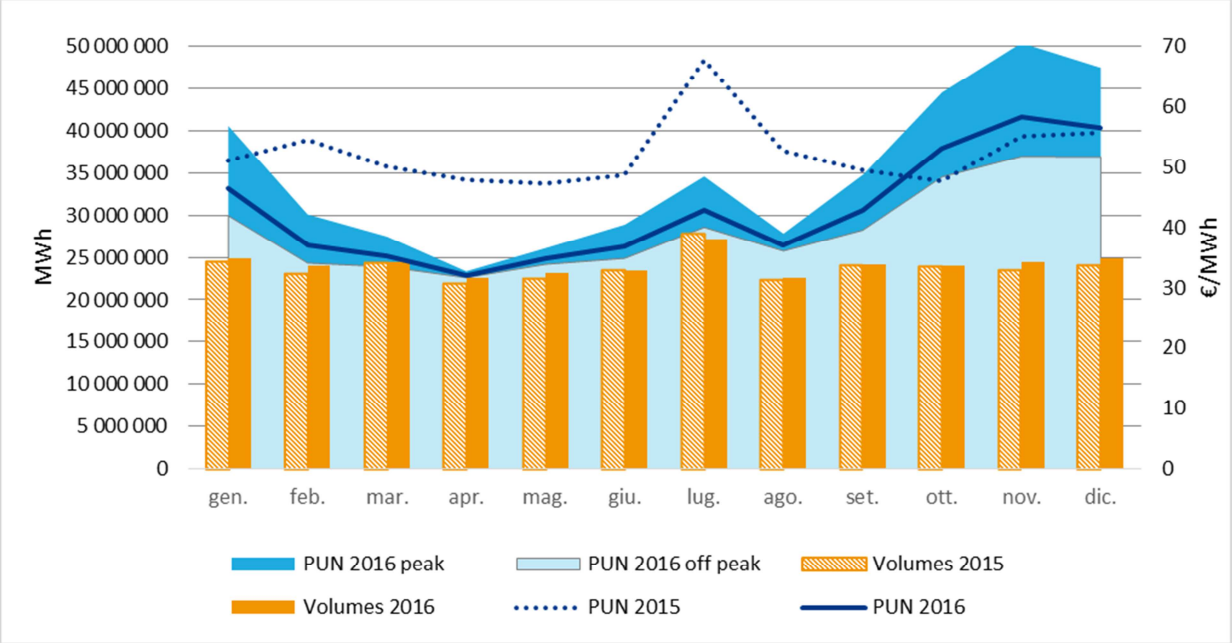
3.2.1.1 Monitoring wholesale market prices

The day-ahead market

In 2016 the Italian Power Exchange recorded the lowest average purchase energy price (PUN) in its history equal to 42.78% €/MWh, down 18.2% on the year before. The drop was considerable in all the time bands, achieving the historical minimums of 48.34% €/MWh and 39.85 €/MWh in peak and off peak hours respectively (-18% approximately in both time bands) and reaching 38.55% €/MWh in holiday hours (-17.6%). The highest average monthly price was recorded in November (58.33 €/MWh), while the peak of monthly sales, as previously observed in the last four years, was recorded in July with 27 TWh exchanged, down 2.9% compared with the same month in 2015 (Figure 3.4).

Figure 3.4 Monthly trend of the PUN and total volumes traded for the Italian System (Sistema Italia?)

Volumes in MWh; PUN (average, peak and off peak) €/MWh



Source: GME.

In detail, a fall in prices to the historical minimum was also seen at a zonal level, with drops on the previous year between 17 and 19%, and values between 40.37 €/MWh of the South, which has confirmed itself as the area with the lowest price for the eighth consecutive year, and 47.62 €./MWh in Sicily. Although considering the impact of the prices recorded on the bordering European Power exchanges on the North Central zones, the convergence of zonal sales prices was consolidated in the last quarter of 2016, facilitated in Sicily by the commissioning in May 2016, of the Sorgente Rizziconi power line.

In the last quarter of 2016[115], a total of 2,485 MWh was exchanged on the MPEG (daily product market), mainly for products with a baseload profile (75%). In this initial period, the negotiations

[115] The first MPEG session occurred on 29th September 2016 with products being delivered from 1st October 2016.

were concentrated in December, with clearly growing values in the subsequent months of 2017. With regard to the prices negotiated, only positive differentials were recorded, ranging between + 0.0 and +1.0 €/MWh in relation to the PUN.

Forward energy market

The MTE (forward market) organised by the GME, in relation to standardised products with physical delivery, recorded a total of 1.1 TWh traded in 2016, down 79% on last year (**Errore. L'origine riferimento non è stata trovata.**). The most significant share of trades comes from the baseload profile (79%), in particular for the monthly (41%) and quarterly (39%) duration. On average seven combinations were registered per month that were mainly concentrated in February, June and August. By observing the position of the prices of the generally more liquid future products i.e. the monthly baseload with expiry dates in the month immediately following (M+1), the operators have indicated prices between 33 and 61 €/MWh for the months in 2016. This position appears to be in line with the trend recorded over the year by the underlying PUN (**Errore. L'origine riferimento non è stata trovata.**).

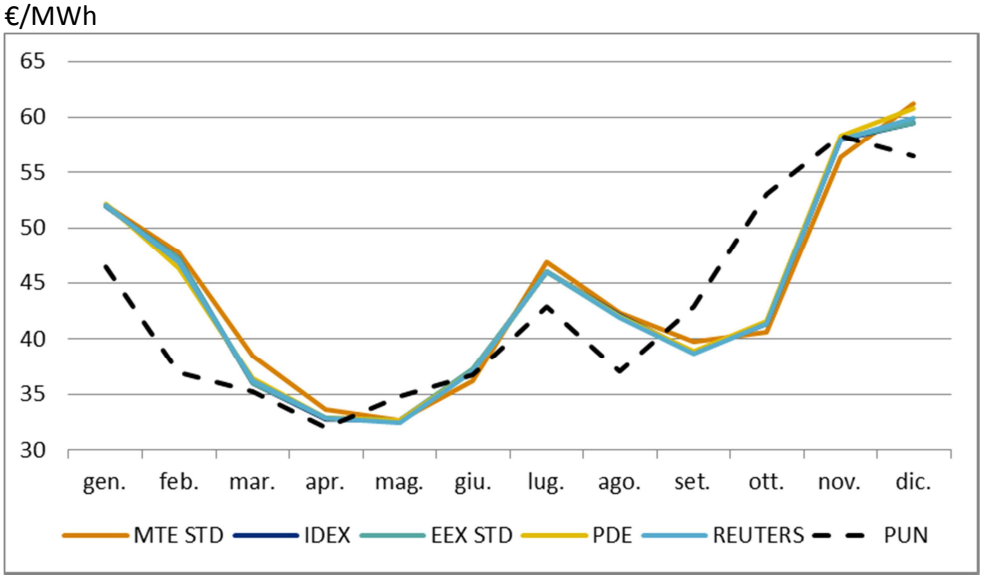
Table 3.8 Volumes exchanged on the Futures Market in 2015

MWh

DURATION	2010	2011	2012	2013	2014	2015	2016	VAR. 2016/2015:	SHARE
CONTRACTS (MW)	2,366	7,673	8,882	2,171	2,944	1,004	411	-59%	100%
Baseload	1,146	5,563	8,253	679	2,829	899	323	-64%	79%
Peakload	1,220	2,110	629	1,492	115	105	88	-16%	21%
VOLUMES (GWh)	6,285	31,667	30,358	7,996	18,402	5,087	1,069	-79%	100%
Baseload	5,011	28,007	28,895	3,618	18,356	5,007	1002	-80%	94%
Peakload	1,275	3,660	1,463	4,379	46	79	67	-15%	6%

Source: AEEGSI processing on GME data.

Figure 3.5 Average prices in 2016 of the baseload product with a monthly duration and expiry in the following month on the different trading platforms



Source: AEEGSI processing on data from various sources.

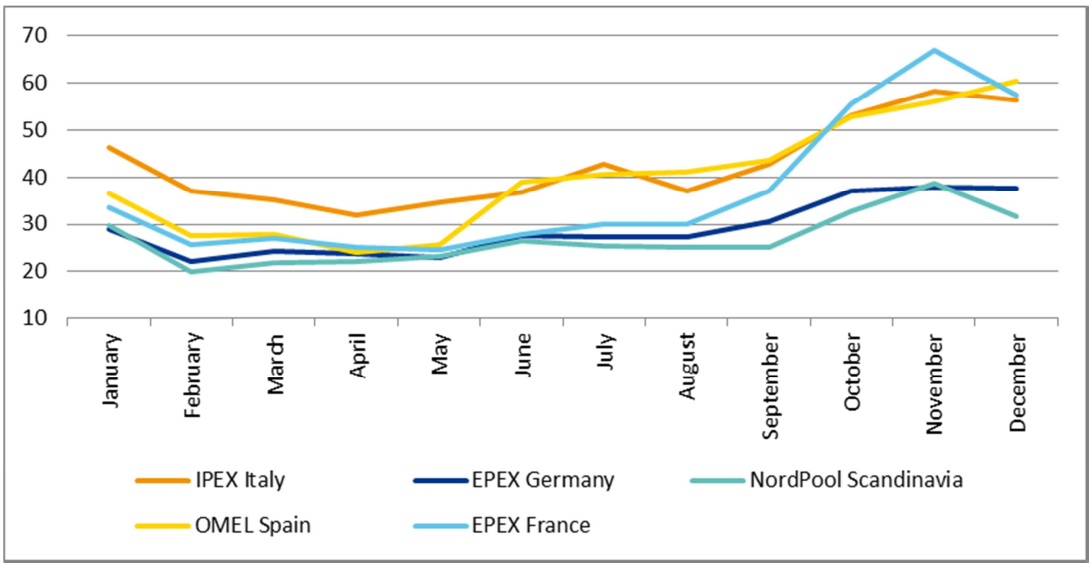
The degree of integration of the Italian market in the European context

A general fall in the price of electricity has also been observed at a European level. In 2016 it has recorded average annual values of between 27 €/MWh in the Scandinavian area and 43 €/MWh in Italy. These dips were registered consistently up to September 2016 while in the last quarter of the year a decided recovery was evident, driven by price peaks recorded in France and resulting from the prolonged unavailability of a number of nuclear power plants. The strong growth of French prices led, among other things, to an increase in the differential with Germany, which rose to the historic maximum of 8 €/MWh (France: 37 €/MWh; Austria/Germany: 29 €/MWh). The high prices recorded between October and November also made France, usually an exporter to abroad, more dependent on the energy from bordering countries. On the border with Italy, even though Italy was a net importer from France in the whole last quarter of 2016, many more hours of export (32%) were recorded compared with the average of the previous periods (2%), driven by a French price that was higher (13%) or equal to the Italian price (67%).

Relative to the volumes exchanged on the northern border, in 2016 market coupling allocated, on average, a capacity of 2,364 MWh every hour of which 1,729 MWh was on the French border (-4.6% compared with 2015), 184 MWh on the Austrian border (-2.7% compared with 2015) and 451 MWh on the Slovenian border (+1% compared with 2015) with an energy flow that was largely imported.

Figure 3.6 Trend in average monthly price on the main European Power Exchanges in 2016

Average baseload value; €/MWh



Source: AEEGSI processing on data from the European Power Exchanges.

3.2.1.2 Monitoring the level of transparency, the level and effectiveness of market opening and competition

The results of marketing monitoring carried out in accordance with the *Integrated text on monitoring of the electricity wholesale market and of the dispatching service market (MSD)* (TIMM), showed that over the course of the first half of 2016:

- some dispatching users, owners of consumption units or production units powered by non-programmable renewable sources have adopted programming strategies that are not coherent with the principles of diligence, prudence, expertise and welfare that should characterise the conduct of an operator in the context of the dispatching service[116];
- some dispatching users, owners of production units authorised to submit bids on the MSD (so-called "authorised units") and that were usually dispatched as a the result of the energy markets, recorded an input programme of zero at the end of the MI. This is partially attributable to the reduction of prices observed in the spring months on energy markets and that drove some of these units out of the market, partially to the fact that the relative dispatching users seemed to have adopted a strategy of physical withholding (absence of offers) or economic withholding (offers at prices above those of the market) on the above mentioned markets. Terna, in order to guarantee the secure operation of the local electricity grid, has had to take steps to start up, on the MSD, some of the above mentioned production units, by accepting the minimum offers submitted by the relative dispatching users at significantly high prices, with impact on the value of the consideration for the supply of resources in the MSD (so-called uplift). The systematic acceptance of the minimum offers has made the marker of imbalance more predictable, thereby favouring the adoption of inconsistent programming strategies, by dispatching users, owners of the consumption units and production units powered by non-programmable renewable sources, which have amplified the negative effects of the functioning of electricity markets.

Thus, at the end of June 2016 the Authority initiated[117] a procedure for the prompt adoption of mandatory measures and the assessment of potential abuses, with respect to various dispatching users that have adopted the above mentioned conduct, intended to promote competition and guarantee the proper functioning of the markets.

Pending the implementation of this procedure the Authority has told the dispatching users to immediately stop all conduct aimed at adopting programming strategies that are not consistent with the principles of diligence, prudence, expertise and welfare and offer conduct such as to alter the regular price formation process in electricity markets, as they are potentially infringements of the prohibition on manipulating the market as peer art. 5 of the REMIT[118].

Following the notifications by GME and Terna, which have shown variations in the offer conduct of other dispatching users, in August 2016 the Authority also initiated[119] other individual proceedings against these parties and notified[120] the Italian Anti-Trust Authority (AGCM) of the potential infringement of the competition regulations by some dispatching users owning of production units qualified for the MSD. On September 29th 2016, the AGCM thus initiated two investigations towards the companies Enel Produzione and Sorgenia, to ascertain the possible infringement of art. 3, letter a), of Law 10th October 1990 no. 287, and/or art. 102, letter a), of the Treaty on the Functioning of the European Union.

[116] Criteria imposed by art. 14 para 6 of resolution no. 111/06 of 9th June 2006.
[117] With resolution of 24th June 2016, 342/2016/E/eel.
[118] (EU)Regulation 1227/2011 of the European Parliament and the Council of 25th October 2011 concerning the integrity and transparency of the wholesale energy market (REMIT).
[119] With resolution of 4th August 2016, 459/2016/E/eel.
[120] With resolution of 6th September 2016, 477/2016/E/eel.

At the end of December, with an archived measure[121], the Authority closed the first twelve proceedings initiated in June to ascertain any non-diligent programming behaviour. In ten cases the results of the investigations showed how, from the adoption of non-diligent behaviour, the dispatching users did not actually derive economic benefits and how, therefore, the conditions were not present for mandatory action without prejudice to the actionability of the above mentioned behaviour. In the other two cases, following the acquisition of specific factual elements, behaviour conforming to the regulation was encountered.

In March 2017, the Authority adopted the initial mandatory measures against the dispatching users owning withdrawal points, with the purpose of returning the amounts unduly obtained by the same, through the economic regulation of the actual and non-arbitrage imbalance considerations, as the result of non-diligent programming. These amounts will go towards the reduction of the *uplift* consideration and therefore to the benefit of the final customers in general[122].

With regard to conditions of infringement of art. 5 of the REMIT, the Authority has assessed that these conditions were not present. In fact, from the economic point of view, the non-diligent programming conduct can be configure as (intertemporal) price arbitrages between the MGP and the Real-time Balancing Market (MB) considering the imbalances as an integral part of this market. Furthermore it emerged that the arbitrage opportunities were incentivised through the method of calculating the marker of macro zonal imbalance and the consequent determination of the imbalance price, the critical nature of which was tackled by the Authority with a number of provisional measures[123], pending the comprehensive review of the regulations concerning imbalances. Finally, the interest of the arbitrageur was seen to be in contrast with the backward propagation (from MSD/MB to MGP) of the distorted imbalance price marker, which would have annulled the price differential from which it would have derived profit. In conclusion, the behaviour examined, at the level of the individual dispatching user, did not determine alterations in the MGP and MSD/MB market prices. Nevertheless, the closure of the individual mandatory procedures did not preclude the initiation of as many sanctioning procedures for the infringement of the dispatching regulations.

REMIT

In terms of monitoring the wholesale markets it should be also mentioned the activity carried out for the implementation of the REMIT, which entered completely in its implementation phase at the European and domestic level.

At the European level, ACER has, in particular, initiated the collection of the data regarding transactions, starting from October 2015, relating to standard contracts and, from April 2015, non-

[121] With resolution of 28th December 2016, 813/2016/E/eel.

[122] The return mechanism was defined with resolution 575/2016/R/eel of October 14 2016 which also as implementation of the TAR Lombardia regulation no. 1185/2016 established that any amounts recovered by Terna, by virtue of mandatory provisions, as well as the asymmetric regulation measures established the following the proceedings initiated with resolutions 342/2016/E/eel and 459/2015/E/eel must immediately be included in the calculation of the uplift consideration. This is to allow them the immediate and automatic payment to all the dispatch users and through them to all the end customers both of the protect and of the open markets.

[123] For details see Resolutions 28th June 2016, 444/2016/R/eel and 28th December 2016, 800/2016/R/eel.

standard contracts. In line with the provisions of the implementing regulation 1348/2014[124], ACER excluded, with the letter of 7th January 2015 then followed by the letter of 15th December 2016, the intention to make requests for transmission of data, pursuant to art. 4 of the said regulation, as concerns contracts closed outside the markets organised as follows:

- intra-group;
- for the physical delivery of electricity produced by a single production unit with a capacity of 10 MW or less or by various production units with an overall capacity of 10 MW or less;
- for the physical supply of natural gas produced by a single natural gas production plant with a production capacity of 20 MW or less;
- for the balancing services for electricity and natural gas.

Over 2016, the Authority also acted to adapt the security protocols for the internal management of data to the standards shared throughout Europe. In particular, the Authority adopted[125] the fundamental principles for the secure management of the information and data received, also in order to begin the process of achieving compliance with the rules established by the ACER, to guarantee the exchange of information with other national regulatory authorities.

In September 2016, the solution adopted by the Authority was submitted to a conformity check through the Peer Review process in the ACER context and positively approved. This was followed in December 2016 by the ACER decision to grant the Authority access both to data collected centrally pursuant to art. 8 of the REMIT (so-called data sharing) and the REMIT case management system (so-called case management tool).

In 2016, the Authority continued to participate in ACER and CEER working groups for the purpose of promoting a coordinated approach in the implementation of the REMIT, by contributing to:

- the review project of the Centralised European Registry of Energy Market Participants (CEREMP), regulated by art. 9 of the REMIT, including through technical support activities as part of the public consultation concerning the functioning and the utility of the register, for the purposes of the preparation of the response analysis document published by ACER on 6th December 2016;
- the constant updating of the Market Monitoring Handbook, an internal use manual used by ACER and the regulators intended to promote cooperation and coordination in the management of REMIT cases;
- the sharing of instruments, methods and resources for the surveillance of the wholesale markets as well as the issues relative to the coordination of cases of potential market abuse with a cross-border dimension;
- the processing of clarifications (Q&A) *and* guidelines to facilitate the proper and uniform application of the definitions and provisions of the regulations, also taking account of the main domestic issues and applications;

[124] Implementing regulation (EU) n.1348/2014 of the Commission, of 17th December 2014, on the reporting of data on transactions and essential information.
[125] With resolution 17th March 2016, 108/2016/A.

- the monitoring of the evolution of the financial regulations and the formation of the CEER-ACER positions in the relevant areas for the proper functioning of the energy markets.

Finally, in 2016 as well, the Authority continued to provide assistance to market operators through informative seminars, meetings and answers to enquiries regarding REMIT.

3.2.2 Retail market

In 2016, on the basis of provisional data published by Terna, total consumption (net of losses) was around 297 TWh, just under that of 2015. Table 3.9 describes the distribution of the latter by end consumer sector.

Table 3.9 Distribution of national electricity consumption by end consumer sector.

TWh

PRODUCTION SECTOR	2014	2015	2016(A)
Domestic	64.3	66.2	66
Agriculture	5.4	5.7	6
Industry	122.5	122.4	122
Tertiary sector	98.9	102.9	103
TOTAL	291.1	297.2	297

(A) Provisional data.

Source: AEEGSI processing on Terna data.

In the Authority operator register, 131 entities declared having sold electricity on the standard offer market, 2 on the safeguarded category market and 542 on the open market (even for the limited period of the year). In 2015 there were 135 vendors in the standard offer market, 2 in the safeguarded category and 481 in the open market. The number of electricity sellers therefore increased by 61 in 2016 due to the entry of new players both from adjacent sectors (notably that of the sale of gas) and from other branches. Thus, the trend of expansion in the sales segment, which persists almost without interruption since 2008, is maintained. As regards the Authority's annual survey, 131 (i.e. all) of the entities that operate the standard offer regime and 450 (i.e. 83% of 542) companies selling electricity on the open market replied. Of these 48 declared they had been inactive throughout the year. Consequently only 402 of the companies active in the open market replied to the annual survey.

Table 3.10 shows the distribution of the final sales of electricity (net of self-consumption and grid losses) together with the total number of customers[126] by type of market determined on the basis of the data of the Authority's annual survey supplied by the electricity operators: producers, operators, producers, standard offer and safeguarded category service providers, wholesalers and vendors on the open market. The sales data gathered by the Authority (considered together with

[126] Approximated by the number of withdrawal points, always counted according to the *pro die* criteria (i.e. counted for the parts of the year for which they were served).

the self-consumption) are representative of a population that reflects 94%[127] of the final consumption estimated by Terna, the electricity grid operator.

Table 3.10 Final market for electricity sales

Net of the own consumption and the losses

	VOLUMES (GWh)			WITHDRAWAL POINTS (thousands)		
	2015	2016	VAR. %	2015	2016	VAR. %
Standard offer market	56,892	52,693	-7.4%	24,215	23,338	-3.6%
Domestic	37,967	35,058	-7.7%	20,313	19,619	-3.4%
Non-domestic	18,925	17,635	-6.8%	3,902	3,718	-4.7%
Safeguarded category service	3,817	4,224	10.7%	85	90	5.8%
Open market	195,259	193,725	-0.8%	12,754	13,842	8.5%
Domestic	21,208	22,055	4.0%	9,401	10,269	9.2%
Non-domestic	174,050	171,670	-1.4%	3.353	3,573	6.6%
FINAL MARKET	255,968	250,642	-2.1%	37,054	37,269	0.6%

Source: Annual Survey of the Regulated Sectors

The results of the annual survey (as usual to be considered provisional for 2016) show that in the last year little more than 250 TWh were sold to around 37 million customers on the final market . In total, energy consumption was down by 2.1% compared to 2015 while the consumers grew by 0.6%. As it has been happening now for several years, the standard offer market shrank further: the fall in final demand in fact weighed more heavily on this service than on the open market which, however, remained constant, at least in terms of customers; conversely, the safeguarding service returned to grow considerably; consumption in the domestic sector fell to a greater extent than consumption for production uses.

More precisely, the domestic sector purchased f 57.1 TWh against 59.2 TWh in 2015, thus recording a reduction of 3.5%, while the energy purchased by the non-domestic sector– this year totalling 193.65 TWh instead of the previous 196.8 TWh – showed a fall of 1.7% compared with 2015.

The standard offer market share decreased both in terms of energy supplied and number of customers supplied, to the advantage of the open market while the safeguarded category grew slightly, at least in terms of energy. In a final market that was reduced by a total of 5.3 TWh, the sales volumes of the standard offer market fell by 4.2 TWh (-7.4% compared with 2015), while the open market lost just 1.5% compared with the year before (-0.8%); however, under the safeguard system sales grew by 0.4 TWh.

In 2016 as well, the movement of domestic consumers towards the open market continued. The domestic withdrawal points grew by approximately 175,000 units in 2016, but the standard offer market lost 683,000 compared with 2015, while the open market recorded 869,000 more. Average unit consumption of families supplied in the standard offer market was lower than that of families

[127] To obtain the percentage indicated it is necessary to add the data collected by the survey in terms of own and group self-consumption, as well as sales to final customers not connected to the distribution network that are not included in the table, to the final consumption from the survey shown in table 3.13.

that bought the energy on the open market. 1,787 kWh/year against 2,148 kWh/year. Both these values, however, are lower than those of the last year: by 82 kWh in the standard offer service and 108 kWh in the open market.

As in 2015, in 2016 the safeguard service expanded, after years during which it steadily lost ground: the energy sold grew by 10.7% (+0.4 TWh), even though the increase was lower than in the previous year when it grew by 17.4%; the number of customer served increased by approximately 5,000 units. As will be seen in greater detail in the pages that follow (see the dedicated paragraph) the increase recorded in the withdrawal points is to be attributed entirely to the customers connected in low voltage and among these, in particular public lighting, while the growth of purchased volumes occurred for all types of customers except for medium voltage public lighting.

As just mentioned, the electricity supplied on the open market in 2016 showed a slight fall: in fact, with 193.7 TWh sold, the level of sales fell by 1.5% compared with 2015. However, the number of customers served in total grew by more than one million units, more in the domestic sector (+9.2%) than in the non-domestic sector (+6.6%). The average unit consumption therefore fell by another 9%. This phenomenon has been occurring for many years: from 25,500 kWh/year in 2011, in 2016 it fell to 14,000 kWh/year. The constant reduction is partially due to the entry in this market of domestic consumers, typically characterised by average withdrawal values lower than those of non-domestic consumers (and over time increasingly lower) but it is especially explained by the fall in non-domestic consumption. In fact, after the recovery of last year, in 2016 sales in the open market to the non-domestic sector experienced a fall once (-1.4%) stopping at 171.7% TWh. In 2011 the open market supplied the non-domestic sector with 12.1 TWh more.

Therefore, overall in 2016 the protected market acquired 21% of all the energy sold to the final market (against 22.2% in 2015), the safeguard service absorbed 1.7% (against 1.5% of 2015) and the open market purchased 77.3% (against 76.3% in 2015). In terms of withdrawal points the relationship tends to be reversed: 62.6% of the customers are still served by the standard offer service while 37.1% moved to the open market.

With the exception of the top three positions, the rankings (provisional given the non-final nature of the data collected) of the first twenty groups for overall sales to the final market in 2016 (**Errore. L'origine riferimento non è stata trovata.**) display some changes in vendor positions as compared to last year.

The dominant operator in the entire Italian electricity market remains the Enel group this year with a share that has risen up again to 35.3% and is still a long way ahead of the Edison group behind it. The share of the Edison group in 2016 also fell two percentage points with regard to that of 2015, stopping at 4.7%. In third place, as always, the Eni group with 4.3% (around the same percentage that it had last year).

The Enel group kept its position in the overall market thanks to its substantial dominance in the so-called mass market, consisting of the domestic sector and the non-domestic customers connected at low voltage: more than half of this market - 54.7% to be precise - is in fact served by Enel, while Eni in second place with a share of 4.1%.

In any case in 2016 Enel also regained first position in the non-domestic customers in medium and in high /very high voltage, which it had lost in 2013.

Table 3.11 Top twenty groups for sales to final market in 2016

GWh

GROUP	DOMESTIC CUSTOMERS	NON-DOMESTIC CUSTOMERS			TOTAL	POSITION
		LV	MV	HV/VHV		In 2015
Enel	41,717	29,453	12,654	4,530	88,354	1st
Edison	1,122	1,635	5,789	3,247	11,793	2nd
Eni	3,146	2,252	4,610	713	10,721	3rd
Hera	1,084	2,876	4,642	391	8,994	5th
Axpo Group	43	1,528	2,835	3,367	7,772	7th
Acea	2,017	1,703	1,942	1,299	6,961	6th
Gala	61	2,582	3,828	184	6,655	4th
A2A	1.447	1,933	2,730	256	6,366	9th
E.On	217	1,499	3,661	845	6,222	10th
Metaenergia	14	869	5,141	173	6,197	11th
Sorgenia	213	1,569	3,681	499	5,962	8th
Iren	1,144	1,502	2,202	128	4,976	16th
C.V.A.	122	1,788	2,515	16	4,441	12th
Energetic Source	71	1,965	1,934	206	4,176	13th
Dolomiti Energia	569	1,471	1,809	250	4,100	15th
Duferco	48	471	1,012	2,543	4,074	18th
Repower	0	1,836	1,750	7	3,593	17th
Alperia	242	950	1,804	229	3,225	25th
SC Holding	273	254	1,367	1,326	3,222	14th
Egea	38	502	2,394	138	3,072	20th
Other operators	3,525	14,352	24,854	7,037	49,767	-
TOTAL	57,113	72,991	93,154	27,384	250,642	-

Source: Annual Survey on Regulated Sectors

In 2016 the level of total market concentration remained largely unchanged: the top three operators (corporate groups) cover 44.2% of the overall sales (the share was 44.3% in 2015); the HHI index was in fact slightly higher, having risen to 1,375 from 1,270. As last year 17 groups were needed in order to exceed 75%.

In 2016, 73% of the energy consumed by families was sold by the Enel group (73.5% in 2015); with a share of 5.5% the second group is Eni, while Acea maintained the third position with 3.5%. On the whole, the first five operators (A2A and Iren together with those already mentioned) hold 86.6% of the domestic sector (87.6% in 2015).

With reference to sales to non-domestic customers with low voltage supply, the Enel group's share at 40.4%, still remains a long way ahead of the second group Hera with 3.9% (in third position in 2015). Gala follows with 3.5%, which was second in 2015, then Eni with 3.1% and Energetic Source with 2.7%.

In 2016 the Edison group, which traditionally followed the incumbent, lost shares in the mass market, having slipped to sixth position in the rankings of sales to domestic customers and to tenth placed in sales to low voltage non-domestic customers, while remaining predominant in the medium and high voltage sectors. In fact, in sales to non-domestic customers connected in medium voltage, Edison is the second group with a share of 6.2%, immediately after Enel with 13.6%. The share of the third group, Metaenergia, increased, moving from 4.6% in 2015 to 5.5%. This is followed by Hera (5%) and Eni (4.9%), while the Gala group, which was in second position in 2015 , fell to sixth place.

In sales to customers in high or very high voltage as well, to which it supplied 11,9% of the total energy purchased , the Edison group remained important although falling into third position. The Enel group, however, returned to first position with a share of 16.5% followed by the Axpo Group (12.3%) which was third in 2015. Duferco (8,5%) and SC Holding, the group that manages and co-ordinates Green grid (6.8%), complete the first five positions in the rankings.

Standard offer market

Domestic and small business consumers[128] connected in low voltage that have not signed a trade agreement on the open market use the standard market or standard offer regime. The service is guaranteed by dedicated sales companies or by distributors with less than 100,000 users connected to their network, based on financial conditions and trade quality indicated by the Authority.

The initial results of the annual survey show that in 2016 just less than 53 TWh were sold to in the standard offer market to around 23 million withdrawal points (calculated with the *pro die* criterion). Compared to 2015, consumption was down approximately 4 TWh (-7.8%) while the withdrawal points served fell by 3.6%.

As always, the number of withdrawal points supplied recorded a steep drop: the service was founded, in effect, upon the full opening of the market, in order to support families and small businesses that weren't capable of choosing a supplier; but is intended to disappear over time, including through administrative provisions. Thus, last year, the service was abandoned by a total of 3.4% of families and 7.2% of other use customers. Within the domestic customers, the sharpest drop was recorded for residents (-4.2%), whilst non-resident domestic users fell by 0.8%; for the latter, who have lower unit consumption, there is probably less motivation to seek more advantageous financial conditions on the open market, as well as the attractiveness for vendors.

[128] In accordance with Italian Decree Law of 18th June 2007, n. 73, converted with amendments by Italian Law of 3rd August 2007, n. 125, "small companies" are final customers other than domestic customers with less than 50 employees and an annual turnover or a total balance no greater than 10 million euros.

Table 3.12 Domestic customers in the standard offer service by type and by consumption category in 2016.

Volumes in GWh; number of withdrawal points in thousands; average consumption KWh

TYPE OF CUSTOMER AND ANNUAL CONSUMPTION CATEGORY	VOLUMES	SHARE	WITHDRAWAL POINTS	SHARE	AVERAGE CONSUMPTION
0-1,000 kWh	2,564	7.3%	6,149	31.3%	417
1,000-1,800 kWh	6,657	19.0%	4,753	24.2%	1,401
1,800-2,500 kWh	7,980	22.8%	3,757	19.2%	2,124
2,500-3,500 kWh	9,008	25.7%	3,093	15.8%	2,913
3,500-5,000 kWh	5,700	16.3%	1,414	7,2%	4,032
5,000-15,000 kWh	2,851	8.1%	442	2.3%	6,455
> 15,000 kWh	297	0.8%	12	0.1%	25,218
TOTAL DOMESTIC	35,058	100.0%	19,619	100.0%	1,787
OF WHICH					
Domestic resident up to 3 kW	26,840	76.6%	13,963	71.2%	1,922
Domestic resident over 3 kW	4,018	11.5%	1,085	5.5%	3,703
Domestic non resident	4,199	12.0%	4.572	23.3%	918

Source: Annual survey of the regulated sectors

As in 2016 electricity consumption was generally lower than the year before, the reductions in the quantities sold (-7.7% for domestic and - 7.7% for other uses) were higher than for the points served (-7.4% for domestic and - 4.8% for other uses). The trend for leaving the standard offer service for non-resident domestics seems to have almost stopped (-0.8%) while in the case of public lighting an increase in the service was recorded in terms of both points served (+15.4%) and energy (+1.5%) The shares of the various uses out of the total consumption are practically unchanged from 2015. 67% of the volumes was purchased from domestic customers (35.1 TWh) which, in terms of numbers (19,6 million withdrawal points), represents 84% of the total (on the whole down to 23.3 million withdrawal points).

Resident families make up 76.7% of domestic customers served in the standard offer service, buying 88% of the electricity sold to the domestic customers. 92.8% of the resident families have a contract with a power limit of 3 kW.

The prevalent contract conditions on the standard market are, as usual, the compulsory two-tier tariff and the time-of-use tariff, which together make up 96.4% of withdrawal points. Almost all domestic customers (96.3%) pay the compulsory two-tier tariff, i.e. the financial situation that varies according to hourly band in the day and that, starting from 1st July 2010, is applied automatically to customers with a reprogrammed electronic meter; only 1.9% of customers pay the voluntary two-tier tariff, that explicitly requested by the customer even before 1 July 2010; the old non time-of-use tariff is applied to the remaining 1.9% of domestic withdrawal points. The percentage of customers with the compulsory two-tier tariff remained substantially unchanged as compared to the previous year and that of customers with the voluntary two-tier tariff increased by 0.4%, while that of customers with the no time-of-use tariff dropped by 0.3%. This third tariff also continues to decrease for non-domestic, as smart meters gradually replace traditional ones: in 2016, it was used by 2% of all customers, but in 2010 it was still as high as 65.9%.

In 2016 the average unit consumption of the domestic customer fell to 1,787 kWh/year (**Errore. L'origine riferimento non è stata trovata.**), from 1,869 kWh recorded in 2015, confirming the underlying trend of reduction (in 2012 it totalled 2,014 kWh).

Considering that the majority of the resident domestic customers who are served in the standard offer regime have a contract with power rating up to 3kW, the average consumption of Italian families can be established as 1,922 kWh/year, a value 78 kWh lower than the one observed in 2015. Totalling 3,703 kWh, the average consumption of the residents with power ratings above 3 kW was higher, but this was also decreasing, totalling 3,917 kWh last year; the average consumption of non-residents also decreased, which dropped to 918 kWh in 2016 from the 957 kWh of the previous year.

Furthermore, of 100 resident withdrawal points with a power limit of 3 kW, which, as mentioned above, form the majority of standard offer, domestic customers (72%), 70 belong to the top three consumer categories: that is to say, they consume a maximum of 2,500 kWh/year. Of resident consumers with a power limit of over 3 kW, 72.3% belong to the top consumer categories (from 2,500 to 15,000 kWh/year); however, these same three categories represent just 4% of all domestic customers supplied under standard offer conditions. As far as non-resident withdrawal points (mostly second homes) are concerned, however, 70% fall under the lowest category (consumption of less than 1,000 kWh/year) and 84% of these customers do not exceed 1,800 kWh/year in consumption.

Table 3.13 Non-domestic customers on the standard market by type and by consumer category in 2016.

Volumes in GWh; number of withdrawal points in thousands; average consumption KWh

TYPE OF CUSTOMER AND CONSUMER CATEGORY	VOLUMES	SHARE	WITHDRAWAL POINTS	SHARE	AVERAGE CONSUMPTION
0-5 MWh	3,491	19.8%	3,003	80.8%	1,163
5-10 MWh	2,272	12.9%	326	8.8%	6,965
10-15 MWh	1,539	8.7%	126	3,4%	12.171
15-20 MWh	1,233	7.0%	72	1.9%	17,229
20-50 MWh	4,241	24.1%	140	3.8%	30,366
50-100 MWh	2,537	14.4%	38	1.0%	67,612
100-500 MWh	2,215	12.6%	14	0.4%	160,867
500 – 2,000 MWh	99	0.6%	0	0,0%	683,101
2,000 – 20,000 MWh	5	0.0%	0	0,0%	4,061,719
20,000 – 50,000 MWh	1.0	0.0%	0	0.0%	25,016,825
TOTAL NON-DOMESTIC CUSTOMERS	17,633	10.0%	3,718	10.0%	4,743
OF WHICH	.		.		.
Non-domestic customers up to 16.5 kW	9,093	51.6%	3,438	92.5%	2,644
Non-domestic customers over 16.5 kW	8,173	46.3%	262	7.0%	31,247
Public lighting	367	2.1%	18	0.5%	20,438

Source: Annual Survey on Regulated Sectors

Table 3.13 shows the distribution of volume (17.6 TWh) and withdrawal points (3.7 million) for non-domestic users served at standard conditions by consumer category. As in 2015, around one fifth (19.8%) of the energy for other uses was sold to customers in the first consumption band (<5 MWh/year), accounting for 81% of non-domestic consumers. The second band, of customers with

an annual consumption of between 5 and 10 MWh, accounts for a further 8.8% of non-domestic withdrawal points and absorbs 13% or electricity sold for non-domestic use. Essentially, 89.5% of non-domestic customers demonstrate annual consumption not exceeding 10 MWh.

Withdrawal points with a power of less than 16.5 kW represent 92.5% of non-domestic consumers supplied under standard offer and 51.6% of consumption. The withdrawal points with power ratings above 16.5 kW are only 7% of the consumers but they absorb 46.3% of the sales. These customers are obviously characterized by higher annual consumption values: almost half of the related withdrawal points fall under the categories with consumption of between 20 and 500 MWh.

Safeguarded categories

The safeguarding services includes non-domestic customers that find themselves, even temporarily, without an electricity trade contract in the open market, but are not eligible to access the standard offer service. These same customers, furthermore, are admitted to the safeguarding service when an arrears situation persists.

Since 2008 the service is issued by sales companies selected via auction [129], which obtain the right to provide the service for two consecutive years. In Autumn 2016, the Authority reviewed the auction regulations and introduced a number of new features to the credit rating system, the guarantees the vendors have to present to Terna and on the role of the Integrated Information System (SII), which has to provide information about the customers managed by the system to the vendors interested in participating. After this review, the safeguarding service for the two-year period 2017-2018 was awarded at the end of November 2016 to the same companies that managed it in the 2014-2016 period: Enel Energia and Hera Comm. The new award however has involved different variations, in fact:

- Enel Energia was awarded the territories of nine regions (previously it had eight): Liguria, Piedmont, Val d'Aosta, Trentino Alto Adige, Lombardy, Lazio, Apuglia, Molise and Basilicata that had all been assigned to Hera Comm in the previous three-year period;
- Hera Comm was awarded the service for the other eleven regions: Veneto, Emilia Romagna, Friuli Venezia Giulia, Tuscany, Marche, Umbria, Sardinia, Campania, Abruzzo, Calabria and Sicily; only three of these (Tuscany, Marche and Umbria) were assigned to Hera Comm in the previous three-year period.

According to the data received from the operators of the safeguarding service in 2016, the service has expanded once more with around 5,000 withdrawal points more than in 2015. More precisely, under the safeguarding service 89,976 withdrawal points were served last year compared with 84,785 in 2015. In total around 4.2 TWh was withdrawn. In practice, the safeguard market

[129] As established by the Decree of the Ministry of Economic Development of 23rd November 2007.

increased by 5.8% in terms of withdrawal points and 10.7% in terms of energy consumed in comparison with 2015.

The increase recorded in the withdrawal points is to be attributed entirely to the customers connected to the low voltage network and among these, in particular, to public lighting, while the growth in volumes purchased occurred for almost all types of customers, except for medium voltage public lighting. The average consumption of users connected at low voltage grew by 3.5% (from 17.3 to 17.9 MWh), that of the users connected at medium voltage rose from 321 to 360 MWh and the volumes withdrawn on average by the customers connected at high voltage rose from 5.4 to 11.4 GWh.

As in the last two years, the share of Hera Comm in the safeguarded categories market was higher than that of Enel Energy, but the gap between the two decreased due to the greater increase recorded by the sales of Enel Energia compared with Hera Comm. In 2016 the safeguarded category service was therefore more equally divided between the two companies: the energy sold by Enel Energia rose to 48.7% (from 45.5% in 2015), while that sold by Hera Comm fell to 51.3% (from 54.5% of 2015).

Free market

As was seen in the pages above, according to the (provisional) data gathered in the Annual Survey on Regulated Sectors, in 2016 193.7 TWh were sold, 0.8% less than in 2015, to 13.8 million customers, up 8.5% compared with 2015. The open market is in constant expansion for the number of customers, but not for the electricity sold: in fact, apart from that of 2015, no clearly positive variations have been recorded since 2011.

Regardless of the quantities sold, a steady increase in the number of active companies has been recorded for years and 2016 is not an exception. On the basis of the responses obtained from the Annual Survey on Regulated Sectors, the number of active vendors has risen by 32 units (+8.6%), although the rate of growth in the last four years has weakened. The continuous increase of vendors in a market that is not growing overall or, sometimes, is reducing means that the average unit sales volume of the companies operating in this market invariably continues to decrease. In 2016 it fell to 482 GWh, the lowest historic value measured to date, equivalent to 36% of that observed in 2007, the year the market opened completely.

As always the most numerically significant increase of suppliers occurred in the smallest company category (that includes companies with sales less than 0.1 TWh), where the number of suppliers rose by 30 units, moving from 271 in 2015 to 301. Companies with sales up 1 TWh also increased by 7 units compared to 2015, rising to 70. The portion of the market satisfied by these last two categories in 2016 totals 15.7% while in 2015 it totalled 13.5%. Therefore, in 2016 the smaller suppliers eroded market shares to the detriment of larger suppliers. In effect, the first three categories of operators (i.e. the top 31 companies corresponding to 7.7% of the active suppliers) covered 84.3% of the total sales in 2016; the same figures calculated in 2015 were 9.7 % and 86.5% respectively.

Looking at the trend of the market share served by the smaller suppliers (with sales up to 1 TWh) over time, a constant trend does not however appear to emerge that clearly shows how they are able to take market shares away from the larger vendors, because their value fluctuates over time and it is not even correlated with the overall performance of the said open market.

39% of the 402 active companies sold energy in a number of regions between 1 and 5, while 67 companies, 16.7%, sold electricity throughout the country; the remaining 178 companies (44.3%) operated in between 6 and 19 regions. In 2015 the businesses selling throughout the country were 15.7% of the 370 active vendors and those with a sales territory limited to five regions were 43.8%.

The corporate composition of the share capital of the electricity suppliers as at 31st December 2015, limited to direct first level shareholding, showed a scant foreign presence: only eight companies (out of 390 which provided this data) have a non-Italian majority shareholder. Most of the direct foreign investors are Swiss, Luxemburgish or German companies.

The detail of the customers by type and voltage (**Errore. L'origine riferimento non è stata trovata.**) show an increase of more than one million points served. This result was largely achieved thanks to domestic and other uses customers at low voltage although there was a fair increase in the high voltage and very high voltage withdrawal points as well (+6.6%). The families served in the open market increased by 869,000 or 9.2% compared with 2015; 221,000 new withdrawal points bought electricity for other uses at low voltage.

However, the number of customers at medium voltage fell by 1.5% and of these a considerable reduction concerned public lighting points.

Contrary to what happened to the number of customers, in 2016 the volumes sold on the open market underwent an overall contraction of 0.8%. In this case as well, the overall result is due to contradicting trends among the various types of customers: the purchases of low-voltage electricity grew while sales of medium and high voltage energy fell. In particular, an increase of 4% affected families and a growth of 1.1% was seen in the other uses at low voltage. On the other hand, a drastic decrease emerged for the public lighting, which in total purchased 295 GWh less than in 2015 (-5.9%) on the open market while it purchased more in the safeguarding service (see above).

Table 3.14 Open market by type of customer

TYPE OF CUSTOMER	VOLUMES (GWh)			WITHDRAWAL POINTS (thousands)		
	2015	2016	VARIATION	2015	2016	VARIATION
LV	74,765	75,930	1.6%	12,653	13,743	8.6%
Domestic	21,208	22,055	4.0%	9,401	10,269	9.2%
Public lighting	4,633	4,395	-5.1%	218	218	-0.1%
Other uses	48,924	49,480	1.1%	3,034	3,255	7.3%
MV	93,156	90,668	-2.7%	99	98	-1.5%
Public lighting	384	327	-14.8%	0.99	0.91	-8.1%
Other uses	92,772	90,340	-2.6%	98	97	-1.4%
HV and VHV	27,337	27,127	-0.8%	0.97	1.04	6.6%
Other uses	27,337	27,127	-0.8%	0.97	1.04	6.6%
TOTAL	195,259	193,725	-0.8%	12,754	13,842	8.5%

Source: Annual Survey on Regulated Sectors

Among the **domestic** customers, the most significant category in terms of withdrawal points is that with consumption between 1,000 and 1,800 kWh, i.e. 24.6% of customers. Nevertheless, the two following categories have a similar weight. If we look at the purchase volumes, however, the largest category is that with consumption between 2,500 and 3,500 kWh/year, to which 27.4% of

all the energy purchased from the domestic sector on the open market was sold. In fact 86.6% of the withdrawal points possess a level of consumption that does not exceed 3,500 kWh/year. In each category the average consumption that emerges from the open market data are very similar to those of domestic customers served in the standard offer regime.

In 2016, 15.7% of domestic customers, around 1.6 million, have signed a dual fuel contract. The number of domestic customers with this type of contract [130] has grown; last year there were 1.5 million of them, but their share has fallen slightly when compared with what was recorded in 2015 (16.2%). The overall consumption of these customers is equal to 3.4 TWh, 15.5% of all the energy sold to domestic customers on the open market. The portion of domestic customers who purchase dual fuel contracts has remained largely constant over time at around 15 - 16%. Average consumption is similar to general consumption in this case, too. Unlike what occurs on the market at standard conditions where the two-tier tariff is largely prevalent as it is obligatory from a certain date onwards, the separation of the customers by tariff applied in the open market shows a substantial preference for non time-of-use contract method. This was chosen by 61.5% of all the customers (who represent 61.2% of the volumes) and has increased since 2015 (when it was 59.1%). 31.8% of the customers chose the two-tier tariff and only 6.7% the time-of-use tariff. Customers probably prefer the time-of-use tariff due to the fact that the bills are easier to calculate and understand. As regards **non-domestic** customers, sales in terms of volumes are concentrated in the consumer categories between 100 and 20,000 MWh/ year that together make up 60% of the energy purchased in total by the non-domestic sector. 55.7% of the customers, however, belong to the first category, i.e. consumption of less than 5 MWh per year.

Among the non-domestic customers, dual fuel contracts are not very widespread: around 80,000 withdrawal points favoured this type out of supply of a total of almost 3.6 million and almost all are connected at low voltage; the energy purchased totals approximately 4.7 TWh out of 171.7 in total.

Ten years from the complete opening of the energy markets, this year for the first time the Annual Survey on Regulated Sectors posed a number of questions to the sellers of electricity and natural gas intended to assess the quantity, the types and the method used for offers that the companies make available to the customers who have decided to choose the open market for their supply.

As always happens when new questions are posed, especially if they require summarisation of a rather complex and varied situation such as that of commercial offers, forcing them into classifications that might not be completely exhaustive of the reality, the new questions generated a fair few requests for clarification and need for interpretation. For this reason the results that are presented in these pages must be treated with the necessary caution, not least because it is an initial reconnaissance aimed at later refinement, starting from the results obtained. Furthermore, since the suppliers had considerable difficulties in answering these new questions regarding non-domestic customers, the supply of which traditionally presents needs that are much more varied and complex than for domestic use, for 2016 the presentation of the results gathered is practically only concentrated on the latter[131] which, however, offers a number of interesting initial indications.

[130] Dual fuel customers are those that receive the same bill for the supply of electricity and gas; therefore, customers who, although they have a contract with the same supplier for both electricity and gas, receive different bills for the two services are excluded.
[131] The only result presented for non-domestic customers concerns the number of offers available, as the specific question in the supplier questionnaire obtained a good response rate.

The average number of commercial offers that each sales company is able to offer its potential customers is 9 for domestic customers and 26 for the non-domestic customers. The latter, of course, benefits from a greater choice as the customer is generally more important in terms of volumes consumed and certainly with needs that are more differentiated (multi-site, more varied hourly consumption etc.) compared with that of a domestic customer. 35% of the suppliers offer just one contractual method, a quarter of them offer up to three and the remaining 40% of the suppliers offer their customers a range of four offers or more.

Of the nine offers offered on average to the domestic customer, five can only be acquired on line, i.e. only via the internet which is now an important sales channel through which the company can clarify its offer with all the details necessary, thereby saving on management costs. Up to now, the online offers do not seem to have been met with great interest from families, as just 13.5% of the customers signed a supply contract in this way.

As regards the preferred type of price, it emerged that 85% of domestic customers signed a fixed price contract in the open market (i.e. a price that does not change for at least a year from the time of signing) while just 15% chose a contract with a variable price, i.e. with a price that changes according to the times and methods established in the contract itself. There are various methods of indexing for variable price contracts; the indexing is linked: in 36% of the cases to the energy component of the standard conditions established by the Authority; in 30% of cases to the Brent trend and in another 30% of cases to the trend of the PUN. Only 4% of customers chose a contract that allows for a different form of indexing from those just mentioned.

Finally, with regard to the presence of additional services in the contracts signed, among the domestic customers who chose a fixed price contract a net preference emerges for both the guarantee to buy electricity produced from renewable sources (42% of customers signed a contract that envisages this) and for the participation, through the electricity contract, in a points programme that can be for both the supplier or for other entities (for example points that can be spent in a supermarket chain): 36% of customers have chosen a contract that offers this additional service.

On the contrary, customers who signed a variable price contract show greater interest in obtaining a rebate/discount of one or more free periods or a fixed sum in cash (41%) and, also in this case, for the guarantee of acquiring electricity produced from renewable sources (36%).

Concentration in the electricity retail market

Analysing the market shares in sales to end customers, it can be seen how concentration the **standard offer market** has slightly risen compared with 2015. The share of the main operator, Enel Servizio Elettrico, has in fact risen by six tenths of a percentage point, from 85.7% in 2015 to 86.3%; followed by Acea Energia (4.7%, in 2015 it was 5%), A2A Energia (3.2%, in 2015 it was 3.4%) and Iren Mercato (1.1%, in 2015 was 1.2%). As with last year the other operators have shares below 1%.

The Enel group, which, as has been seen, dominates the safeguarded category sector of the final electric market is decidedly less important in the **open market**, even though, also here it maintains the top position with a share of 21.1%, an increase compared to the 17.9% of 2015. In fact, in 2016 its sales share was 15 points higher than that of the Edison Group. However, this distance is increasing: in 2016 it grew, as it had already done the year before, just think that in 2014 it totalled seven points. This is due to the fact that the Enel sales have been increasing year on year

but also because Edison sales, on the contrary, are falling. In 2016 in particular, the group lost market share, especially among non-domestic customers. Stable in third place we find Eni that covers 5.5% of the market. Many other changes in the rankings of the main suppliers are seen in the following positions because sales volumes tend to even out amongst themselves over time.

However, the degree of national concentration in the open market remains low: the share of the top three groups has been stable around 33% for several years, that of the first ten has dropped from 55.8% to 55.4%. In 2016 the HHI index rose from 560 to 640 (because of the expansion of the distance between the first and the second group) although it remains very distant from the threshold of 1,500, above which the market is judged to be moderately concentrated.

In the **entire retail market** this year the dominant operator remains the Enel group with a share that has risen again to 35.3% and is still a long way ahead of the Edison group behind it. In 2016 the share of the Edison group also fell two percentage points with regard to that of 2015, stopping at 4.7%. In third place, as always, the Eni group with 4.3% (around the same percentage that it had last year). Its importance is however very differentiated in the various segments of the final market. In fact, in the domestic sector and in the non-domestic customers connected at low voltage the group holds an extremely large share and one above all that is rather far from the groups following it; on the contrary, in the sale to non-domestic customers at medium and high/very high voltage, since 2013 Enel is no longer the first operator and obviously holds a market share that is not very different from its competitors.

In 2016 the Enel group was the only one to achieve a market share higher than 5% while in 2015 there were 2: Enel with 33.4% and Edison with 6,7%. At a due distance, this is followed by the Edison group with a market share of 4.7% and Eni with 4.3%. The top ten operators (corporate groups) cover 63.8% of the total sales (against 64.7% of the year before).

Table 3.15 shows the detail of the concentration by voltage level. With the exception of MV, all the C3 values are down on 2015. Furthermore a slight increase in the HHI in the non-domestic LV and in the MV.

Table 3.15 Concentration in the retail market

VOLTAGE LEVEL	2015			2016		
	OPERATORS WITH SHARE > 5%	C3	HHI	OPERATORS WITH SHARE > 5%	C3	HHI
Low voltage (domestic)	2	82.8%	5,473	2	82.1%	5,399
Low voltage (not-domestic)	1	48.3%	1,726	1	47.8%	1,738
Medium voltage	3	25.0%	387	3	25.3%	431
High and very high voltage	6	41.3%	799	4	40.7%	777
TOTAL MARKET	2	44.3%	1,270	1	44.2%	1,375

Source: Annual Survey on Regulated Sectors.

3.2.2.1 Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

Monitoring the price levels of the retail market

The Authority has available two surveys with regard to the sales prices in the electricity retail market:

- that made in accordance with resolution ARG/elt 167/08 of 20th November 2008, in which the monthly data relative to the billed prices are shown quarterly[132] by the suppliers to domestic and non-domestic customers, separated into consumption categories and by type of market;
- that carried out as part of the Annual survey on Regulated Sectors in which the data of competence for the year before and separated into various retail categories are detected (type of market, sector and consumption classes, type of contract applied).

At the end of 2011 the Authority approved[133] the *Testo integrato del monitoraggio dei mercati della vendita al dettaglio dell'energia elettrica e del gas natural* (Integrated Text for Monitoring the Electricity and Natural Gas Markets; TIMR), which outlines the obligation for those undertaking the end sale of electricity (supplying more than 50,000 withdrawal points) to submit every quarter to the Authority data on the average monthly prices of electricity practised on the end market, together with several other indicators (see below). In fact, from January 2012, the average prices gathered by the Authority pursuant to Resolution ARG/elt 167/08 merge partially with vendors under obligation pursuant to the TIMR, as part of the retail monitoring system. By virtue of an institutional agreement, in any case, all the data gathered pursuant to Resolution ARG/elt 167/08 is submitted every six months to the Ministry of Economic Development, which forwards it to Eurostat in fulfilment of the obligations concerning price statistics for gas and electricity end customers. As these were amended in 2016 [134], resolution ARG/elt 167/08 will have to be amended in 2017 to meet new European obligations.

The data in the Annual Survey are instead used for the statistical analysis carried out by the Authorities, especially those presented in the Annual Report to the national and European authorities.

As part of the Annual Survey on Regulated Sectors, sales operators were asked, as usual, to send the data regarding the end prices applied to their customers, both before taxes and for the part related to supply costs only (understood as the sum of the components related to energy, dispatching, grid losses, imbalance and marketing costs).

Analysis of the prices submitted by the operators in relation to both the supply costs only and to the end prices before taxes revealed extreme variability in customer unit cost. This result is valid for all consumption categories, though with some distinctions. As is shown in Table 3.16, which shows the average prices applied to domestic customers divided by consumption category, the

[132] More precisely, these are average unit turnovers obtained by the relationship between revenues received and quantities of energy billed in the reference quarter.
[133] With resolution of 3rd November 2011, ARG/com 151/11.
[134] On 17th November 2016 the European Parliament and the Council adopted *Regulation (EU) 2016/1952 on European statistics on natural gas and electricity prices, repealing Directive 2008/92/CE*, which came into force on 7th December 2016.

values range from a minimum of 186.7 €/MWh, seen for the 1,800-2,500 kWh/year category, to a maximum of 384,1 €/MWh for the smallest category (0-1000 kWh). The price falls with the increase in the customer size until the third category, to then rise for bigger customers, with the exception of the last category which presents a value slightly lower than the previous one. Therefore the characteristic U trend that emerged in the last few years is no longer recorded. This can be attributed to the implementation of the first phase of the grid tariff reform[135], aimed at gradually phasing out the progressive structure of the tariffs themselves. As is to be expected, the supply cost ,however, diminishes progressively as the consumption increases.

Table 3.16 Average end prices before taxes for domestic customers in 2016

€/MWh; provisional data

CONSUMPTION CATEGORY (kWh/year)	AMOUNT OF ENERGY(GWh)	WITHDRAWAL POINTS (thousands)	PRICE BEFORE TAXES	OF WHICH SUPPLY COSTS
< 1,000 kWh	3,594	8,231	384.1	151.0
1,000-1,800 kWh	10,227	7,276	200.4	99.7
1,800-2,500 kWh	12,742	5,983	186.7	94.7
2,500-3,500 kWh	15,057	5,154	195.6	93.8
3,500-5,000 kWh	9,853	2,435	212.4	93.3
5,000-15,000 kWh	5,112	788	224.1	88.3
> 15,000 kWh	528	21	215.4	78.3
TOTAL DOMESTIC CUSTOMERS	57,113	29,889	211.9	97.9

Source: Annual Survey on Regulated Sectors.

Table 3.17 Percentage of prices applied to domestic customers in 2016 by price band

minimum and maximum prices in €/MWh

CONSUMPTION CLASS (kWh/year)	PRICE BAND					MINIMUM PRICE	MAXIMUM PRICE
	30 -75:	75 -100:	100 -125:	125 -150:	>150		
< 1,000 kWh	14%	9%	13%	24%	40%	33.3	248.8
1,000-1,800 kWh	13%	25%	34%	18%	10%	34.3	229.1
1,800-2,500 kWh	14%	34%	36%	10%	6%	32.1	249.9
2,500-3,500 kWh	14%	41%	33%	9%	4%	39.0	233.1
3,500-5,000 kWh	16%	45%	31%	5%	4%	38.5	232.2
5,000-15,000 kWh	22%	52%	21%	3%	2%	30.3	237.3
> 15,000 kWh	31%	55%	10%	3%	1%	21.5	214.7
TOTAL DOMESTIC CUSTOMERS	17%	37%	27%	10%	9%	21.5	249.9

Source: Annual Survey on Regulated Sectors.

As proof of the considerable variability of the prices applied by the suppliers, it is possible to observe the data presented in table 3.17 which, for each consumption class of domestic

[135] Resolution 582/2015/R/eel of 2nd December 2015

customers, divides the prices found on the open market and the corresponding share of electricity sold by price band (expressed in €/MWh). The dispersion of the values is higher in the first three consumption classes while in the subsequent ones the prices tend to be concentrated in the bands with lower values. The table also shows the indication of the minimum price and the maximum price that appear very far from each other.

Table 3.18 Average end prices before taxes for non-domestic customers in 2016

€/MWh; provisional data

VOLTAGE LEVEL	AMOUNT OF ENERGY(GWh)	WITHDRAWAL POINTS (thousands)	PRICE BEFORE TAXES	OF WHICH SUPPLY COSTS
Low voltage	72,991	86.9	86.9	86.9
Medium voltage	93,154	68.5	68.5	68.5
High and very high voltage	27,384	61.4	61.4	61.4
TOTAL NON-DOMESTIC CUSTOMERS	193,529	74.4	74.4	74.4

Source: Annual Survey on Regulated Sectors.

As shown in the paragraph relative to the open market the offers available to the end customers increased. Some of these offers include supplies with fixed price for a determined period (one or two years) where the updating of charges isn't influenced by energy price circumstances, but depends significantly on the contract start date (and, in particular, on the predicted fuel price trends existing at that moment), as well as the duration of the contract itself (the longer the contract, the more the agreed price must take into account the risks of market change). Other offers have a variable price. Some of these include discounts on the energy component; yet others, instead, include deals for purchasing other goods or services (such as discounts at supermarkets or on vehicle fuel or telephone services, etc.). Yet more offers are tied to compliance with certain consumption thresholds, above which additional charges are applied.

Table 3.19 displays the prices before taxes, dividing the electricity customers according to type of hourly tariff (excluding the safeguarded market), whilst the following table shows the electricity prices paid by customers with a dual fuel contract, which, on average, prove to be almost invariably less advantageous than buying electricity with a specific contract. The same tables also highlight the decidedly reduced number of such customers and amount of energy they purchased.

Table 3.19 Average end prices before taxes in 2016 by type of hourly tariff

€/MWh; excluding the safeguarded market; provisional data

HOURLY TARIFFING	AMOUNT OF ENERGY(GWh)	WITHDRAWAL POINTS (thousands)	PRICE BEFORE TAXES	OF WHICH SUPPLY COSTS
Non time-of-use	34 273:	7 378:	180.79	88.44
Two tier	94 252:	23 678:	174.35	81.67
Time-of-use	117 893:	6 123:	193.95	74.34
TOTAL CUSTOMERS	246 418:	37 179:	184.62	79.11

Source: Annual Survey on Regulated Sectors.

Table 3.20 Average final prices before taxes for the purchase of electricity, in 2016, imposed on domestic customers with dual fuel contracts on the open market

€/MWh; provisional data

CONSUMPTION CATEGORY (kWh/year)	AMOUNT OF ENERGY(GWh)	WITHDRAWAL POINTS (thousands)	PRICE BEFORE TAXES	OF WHICH SUPPLY COSTS
< 1,000 kWh	138	307	506.68	158.32
1,000-1,800 kWh	587	417	245.70	108.48
1,800-2,500 kWh	777	365	220.29	103.22
2,500-3,500 kWh	949	325	221.78	101.99
3,500-5,000 kWh	609	151	233.03	101.32
5,000-15,000 kWh	318	49	240.92	98.41
> 15,000 kWh	36	1	244.07	98.72
TOTAL DOMESTIC CUSTOMERS	3 414:	1 615:	241.11	105.18

Source: Annual Survey on Regulated Sectors.

Table 3.21 Average final prices before taxes for the purchase of electricity, in 2016, imposed on non-domestic customers with dual fuel contracts on the open market

€/MWh; provisional data

VOLTAGE LEVEL	AMOUNT OF ENERGY(GWh)	WITHDRAWAL POINTS (thousands)	PRICE BEFORE TAXES	OF WHICH SUPPLY COSTS
Low voltage	1 341:	78.25	198.89	87.39
Medium voltage	2 006:	1.68	129.32	64.54
High and very high voltage	1 374:	0.03	104.51	61.97
TOTAL NON-DOMESTIC CUSTOMERS	4 721:	79.97	141.86	70.28

Source: Annual Survey on Regulated Sectors.

Monitoring the level of transparency and degree of effectiveness of market opening and competition

The retail market monitoring system is intended to allow the Authority to observe regularly and systematically the retail operational conditions, including the degree of opening, competitiveness and transparency of the market, as well as the level of end customer participation and their degree of satisfaction. As mentioned above, the Authority defined the parties that are obliged to undergo monitoring, that is to say the vendors or distributors with the necessary characteristics (in terms of number of withdrawal points supplied) which are obliged to send the basic information necessary for the Authority to calculate the indicators[136], as well as the minimum set of market indicators and the relative methods of calculation. Furthermore, the basic data collection activities were outlined (which data to collect, how often and using which method) and the methods of publication and updating of the outcomes of retail sale monitoring. In addition to the price data collections mentioned on the previous pages, the collections made by the Authority relative to the

[136] The indicators are synthetic formulae representative of the phenomena subject to retail monitoring.

evolution of safeguarding regimes for end customers, and information on overdue payments also became part of the retail monitoring system from January 2012. In January 2012, the Authority implemented the systematic collection of basic information, which continued in subsequent years. This collection serves the publication by the Authority of both the Retail Monitoring Report that contains the measured indices and the relative analysis of the evolution of the operational conditions of the retail market, with particular reference to the degree of opening and levels of competitiveness and transparency, as well as the degree of participation and satisfaction of the end customers.

Just like every year, in 2016 as well the Authority identified those who are obliged to send the data subject to retail market monitoring, publishing the list on their website: a total of 121 parties are obliged to do so. With reference to the electricity sector, there are 13 distributors and 58 suppliers; Of these, 9 distributors and 3 suppliers operate exclusively in the electricity sector, while the rest sell both electricity and natural gas.

On March 21st, 2017 The Authority published[137] the update of the Retail Market Monitoring Report for the two-year period 2014-2015, which updates the Authority's monitoring of 2012-2013. For the electricity sector, the analysis showed how the number of active market operators in the open market was steadily increasing for all types of customers (active corporate groups went from 219 in 2012 to 335 in 2015), with uniform competitive conditions at the national level, but differentiated by customer types and with concentration indices that remained stable. In fact, the level of competition of other use customers at LV is improved (shops and small businesses), closer to the good performance levels in the large customer market (MV other uses), with 45% being supplied on the open market (the figure was 36% in 2012), underlying a high volume of energy totalling 72%, and with the top operator holding a sales share of about 23% (down by -4.3% compared with 2012).

The domestic client market continues to be less dynamic. The standard offer service still represents the most prevalent form of supply, even though it has been steadily decreasing since 2012: in 2015, little less than a third of families are supplied on the open market (32%). Domestic customers seem to remain in standard offer regimes[138] due to limited awareness of the opportunities and elements of the market , and because they are less attractive for suppliers. This then remains the competitive edge of standard offer operators in convincing customers to choose their offer in the open market (67% of the transitions to the open market are in their favour). Concentration levels remain high (with the top operator in 2015 holding a market share of about 50%).

In the electricity and gas sectors, since open market offers are often characterized by the presence of additional supply-related services that are not present in standard offer regimes (which, as we know, do not have additional services in relation to kWh), for the two-year period, 2014-2015 it is noted how the data collected related to spending by domestic customers on the open market seems to be on average higher than those in the standard offer regimes. The analysis must necessarily consider that the open market price, as mentioned, includes a number of additional energy supply elements (such as loyalty programs, extra energy and non-energy-services) that

[137] See the Report of 16th March 2017, 168/2017/I/com available here: http://www.autorita.energia.it/it/docs/17/168-17.htm.
[138] Within which the supply is limited to the provision of energy at a price that reflects the prevalent conditions in the wholesale market.

make it very difficult to compare. In addition, offers are increasingly characterized by a fixed price (as evidenced by the predominance of this type of offer also in the Authority's ' Offer Finder' service compared with those with a variable price). Such types of offer require the vendor to acquire 'hedging' for the risk of future price increases, with an additional insurance differential being paid by the customers. For offers of equal content, the differential to obtain a fixed price is greatly reduced by signing contracts online, by which vendors minimize customer purchase costs compared to other sales channels, thus making offers more advantageous for consumers on average.

From the analysis of the costs incurred by domestic customers in the open market it emerges how these consumers seem to fail to fully understand the reduction in wholesale prices recorded during the monitoring period. Conversely, for other small customers in the open market (SMEs and business), the cost trend seems to be more aligned with that of the standard offer regimes, which follows the wholesale price to a greater extent. This supports the hypothesis of a marked improvement in the ability of non-domestic customers to optimize the prices of their supplies when faced with, for domestic customers, a limited market knowledge and considerable variables that are key in identifying the best offer.

It is therefore essential to increase the regulatory efforts to increase the choice capacity of domestic customers, continuing along the path initiated by the Authority to make the information on the offer conditions more transparent and to enhance the tools for comparison. Among the various initiatives, these requirements are also met by the provision[139] that each open market supplier is also required to include an offer that contains minimum contractual terms defined by the Authority in its offer list and, in the near future, a standard offer with a price structure and contractual terms with the content defined by the Authority, which is necessary to favour the comparability between offers and their homogeneity. Stimulating participation in the open market was also the goal of the introduction of *Tutela SIMILE* , an instrument designed to enable the passage to the open market, with the possibility to choosing an offer with easily comparable content in an environment 'supervised' by the Authority.

Regarding the degree of customer satisfaction, the **complaints** index (the ratio between the number of complaints and the number of customers served) is decreasing in the open market, down to an average level of 1.3% and 1.4% respectively for domestic electricity and gas customers (it was 2.5% in 2012 for both sectors), with almost constant call for standard offer (about 0.4% for electric domestic customers, 0.7% gas) throughout the four-year period 2012/2015.

In addition, as regards the regulation of **unsolicited contracts and / or activations**, in 2015 the weight of contracts disputed by customers as they were considered to be irregular in their formation , for domestic customers, is about 1% of the total new contracts signed during the year, reaching a level of 0.7% for customers connected to the low-voltage network for other uses.

The indicator on the **unavailability of switching measures within the set timeframe** has been further improved in 2014 (from 2.1% in 2013 to 1.6% in 2014), after which it saw a significant increase in 2015, settling at around 9.3%. This apparently alarming phenomenon needs further investigation, but seems to be attributable to the behaviour of a single distributor and restricted to delays limited in time and space.

[139] Adopted with resolution of 4th August 2016, 463/2016/R/com.

In 2015, an increase in **billing adjustments** in the open market was mainly attributed to a single operator. In addition, the phenomenon of correcting double billing has steadily fallen since 2012, although in 2014 there was an increase in just the standard offer service. Finally, in 2015 the weight of contracts disputed by customers, because they were considered irregular in their formation, was estimated at about 0.9% in domestic customers, in relation to the total of new contracts signed in the same year, while it was lower for the other customers.

As for the question of **default**, the analysis of requests for the suspension of service due to default reveals that this phenomenon is considerable, albeit decreasing for the electricity sector (with the exception of domestic customers on the open market). However, this phenomenon has to be framed in a general context of economic crisis and is therefore also linked to specific situations of poverty, which should be appropriately addressed and dealt with using targeted tools (electricity bonus). Again with reference to bill default, there is concern that, in both sectors, customers in the standard offer regime increasingly tend not to honour their debts after having received communication of supply suspension due to arrears. Payments made after the suspension request due to arrears, instead increased for other customers.

There is an increase in the **weight of long-term credit** (existing for over 180 days) compared to medium and short term credit (between 30 and 180 days and less than 30 days, respectively). This is a critical point for the development of competition, since increasing the need for cash for suppliers could be a barrier to growth for smaller operators and could indirectly affect the prices charged to end customers in general. These data confirm, in the two-year period 2014-2015 as well, a regional disparity in arrears, for both the electricity and gas sectors. With regard to the electricity sector, however, the sharp reduction in requests for suspension for customers who are part of the safeguarded system should be noted, primarily in the South.

Finally, in the Report **some lines of action** are outlined for both sectors. In effect, for both electricity and natural gas, there is a need to consider the scant participation in demand, associated with the competitive advantage (which in the electricity sector seems even to show signs of growth) of the operators in the standard offer sector and historic suppliers. In fact, in the context of full liberalisation, customers may not grasp all the opportunities offered by the open market; the exercise of market power should therefore be limited, by promoting the emergence of effective competition and the expansion of the competitors of historic operators, but above all by creating conditions for the greater participation in demand.

The interventions already put in place by the Authority to define the price structures of the economic conditions of the standard offer system, hedging the wholesale supply costs are framed in this context, aligned as far as possible with the prices formed in the spot markets, as well as, for the electricity sector, the implementation of the reform that set up *Tutela SIMILE* in 2016.

Trova Offerte

On the theme of measures adopted to promote effective competition, mention must be made of Trova Offerte (Offer Finder), a search system for electricity and gas retailer commercial offers intended for domestic users.

Over 2016, more than 360,000 visits were made to the Trova Offerte homepage, while around 550,000 calculations were carried out (i.e. the display page of the results page). As of the 31st March 2017 the system had the voluntary participation of 29 sales companies including some national and regional leaders and some operating on a local scale. For the searches carried out in

March 2017 using the profile of average consumption and domestic customer[140],in the major Italian cities, the system displayed over 60 offers, predominantly at a fixed price, with the most affordable offer that offers potential savings, calculated on annual spending gross of taxes and for dwellings in Rome, of over 60 € / year (13%) with respect to supply under regulated conditions, and about 160 € / year (-27%) with respect to the most affordable offer. Looking at the situation in March 2015, gross spending associated with the most affordable offer is currently less than about € 28 / year. Again, considering the most affordable offer, today the potential savings compared to the supply under regulated conditions is higher, if compared to last year's (-40 € / year in March 2016), and the potential savings with respect to the most affordable offer is also higher compared to the one in March 2016 (-130 € / year). Also for 2017, it is confirmed that the most affordable offers are those that include an energy price fixed for at least a year, the stipulation of the contract via Internet, payment via direct debit and the sending of electronic bills.

Integrated Information System

Finally, with regard to the measures taken to promote effective competition, mention should be made of the **Integrated Information System** (SII) for the management of information flows related to the electricity and natural gas markets, which was conceived by the Authority in 2008 and launched in 2012. The purpose of the SII, established with the Single Buyer with Italian Law no. 129/10 of 13th August, 2010, is to manage the flows of information between participants on the electricity and natural gas markets according to the regulations and procedures defined by the Authority. It is based on a database that holds the full list of national withdrawal points and data fundamental to process management, called the Official Central Registry (RCU), shared with all interested stakeholders. For example, in the case of the electricity sector, the data is shared with Terna, distributors, dispatching users who own consumption units and vendors.

With reference to the electricity sector, from July 2013, the Integrated Information System became the official channel for the distribution of data relevant to settlement to dispatching users. In 2015, the go-ahead[141] was given for trialling distribution via this system of information flows containing metering relating to non-hourly withdrawal points and transferred from distributor to user, for the purposes of invoicing transport services and settlement. This provision is a further step towards the full implementation of Italian Law no. 27 of 24 March 2012, which also granted the Integrated Information System the management of end customer consumption data. This experimentation will contribute to the development of the availability of consumption data history to the end customer, in implementation of the provisions of Legislative Decree no. 102 of 4 July 2014.

Since November 1st, 2015, switching transactions and operations for the electricity sector have been managed within the SII. This decision was taken based on the results obtained in the experimentation stage, between April and July 2015, involving operation, performance and efficiency checks, for the purpose of verifying the reliability of the system itself.

[140] I.e. the supply to a registered dwelling with subscribed demand of 3 kW and annual consumption of 2,700 kWh, divided into 33.4% in the F1 band (most costly) and 66.6 in the F23 band.
[141] Resolution 30th July 2015, 402/2015/R/eel

Again in Autumn 2015, the new regulations governing the switching process within the SII were defined[142] together with the management of contract termination and the implementation of last resort services. The most important aspects of this reform (described in detail in last year's Annual Report) mainly concerned the assignment of responsibility for switching to the SII (and no longer the distributor) in case of a change of supplier, activation of last resort services and reduction in the time required for switching to three weeks.

With the aim of completing the switching reform, the Authority extended the information content of the RCU at the end of 2015. The new Registry data was identified with the aim of simplifying the management of the switching process in the Integrated Information System, in particular in the case of contract termination and the activation of standard offer and safeguarded category services, as well as for the purpose of achieving the overall reorganisation of the methods by which operational data on invoicing transport services and settlement is distributed, making it more consistent as compared to the experiments undertaken.

In order to complete the reform of the switching process within the SII, in February 2016[143], the activities and obligations to provide information previously assigned to the distributors were transferred to the SII. These obligations to provide information mainly concern the status of the dispatch and transport contracts.

Switching

The Annual Survey carried out among electricity distribution operators involved certain questions on switching, that is to say, the number of customers who changed supplier in the year 2016[144].

On the basis of the data provided by the distributors, 2016 was also marked by intense switching. In total, more than 3.7 million customers (184,000 points more than in 2015), that is to say 10.1%, changed supplier at least once during 2016. In terms of volumes, this corresponds to almost 24% of the total energy distributed (Table 3.22).

In greater detail the following changed supplier in 2016:

- 8.7% of families (i.e. over 2 million and half a million withdrawal points), corresponding to a share of 10.2%, with an increase of more than 200,000 withdrawal points compared to 2015;
- 15.4% (i.e. just over 1.1 million) low-voltage, non-domestic customers, corresponding to an energy share of 15.6%; these customers were a little less dynamic than last year, when about 8,000 more points changed supplier.

Unlike most recent years, the switching level of the non-domestic sector at medium and high voltage lost dynamism in terms of both withdrawal points and energy.

In 2016, 27.2% of medium-voltage customers changed supplier, 7,800 withdrawal points fewer than in 2015, corresponding to 33.2% of the volumes. Stronger still was the reduction compared

[142] Resolution of 14th October 2015, 487/2015/R/eel
[143] See resolution of 25th February 2016, 73/2016/R/eel
[144] The questions were posed so as to identify the phenomenon according to the definition established by the European Commission. Therefore, a copy of the same questionnaire used in previous years was use. For details see the previous Annual Reports.

to the previous year of the switching of high or high voltage customers, which dropped to 17.8% from 35.2% recorded in 2015.

Table 3.22 Rates of switching by end customers

TYPE OF CUSTOMER	2015		2016	
	VOLUMES	WITHDRAWAL POINTS	VOLUMES	WITHDRAWAL POINTS
Domestic	10.1%	8.0%	10.2%	8.7%
Non-domestic	32.6%	15.8%	27.8%	15.6%
of which:				
- low voltage	28.6%	15.5%	26.6%	15.4%
-medium voltage	34.8%	34.4%	33.2%	27.2%
- high and very high voltage	34.6%	35.2%	16.8%	17.8%
TOTAL	27.6%	9.6%	23.9%	10.1%

Source: Annual Survey on Regulated Sectors.

Complaints and reports

The Authority is obliged to ensure the efficient processing of complaints and conciliation procedures of end customers with regard to vendors and distributors of natural gas and electricity, taking advantage of the Single Buyer, and to monitor and ensure the application of the principles of consumer protection, as set out in Annex 1 of the Directive of the European Parliament and Council 2009/72/CE, in accordance with the provisions of Art. 44, Par. 4 of Legislative Decree no. 93/11. The Energy Consumer Help-Desk is the instrument used by the Authority (since then end of 2009) to ensure the effective processing of complaints, including those of 'prosumers' (producer-consumers), by asking operators for necessary information and providing customers, their representative associations and operators with the indications necessary to resolve the problems reported. The Help-Desk only refers fully investigated complaints to the Authority, which must then be subject to assessment. On 1st January 2017, the new Help-Desk operational regulations came into force (described in Part 5).

In the past year, there has been a recorded decrease of 4% (from 40,775 to 38,966) in total communications received by the Authority and by the Help-Desk, which include complaints, information requests and reports. This reduction could be tied to the improvement of certain retail market processes and to an increased number of problems that are solved at the first stage of complaint with the energy company. The customers who turn to the Help-Desk are predominantly domestic and the electricity sector continues to be that most concerned, though it does, after all, have a larger number of customers than the gas sector.

In the period between 1st January 2016 and 31st December 2016, there were 25,349 communications – i.e. combined complaints, reports and requests for information – concerning the electricity sector (around 65% of overall communications), a further decrease as compared to 2015. There were some very slight changes in proportion between complaints and requests for information, the latter decreasing slightly in absolute value.

From the analysis of the data in Table 3.23, it emerges that the most frequent subjects of the communications received in 2016 are, in order: contracts, the market, billing, and bonuses. Compared to 2015, there is a notable decrease in communications regarding billing and the

market. However, there is a substantial invariance of communications regarding the bonus and contracts.

The communications on billing concern mainly problems relating to the correct calculation of consumption, compensation and refunds, as well as, though decreased in number, billing frequency; communications regarding the market are above all, and increased compared to 2015, on problems concerning lack of knowledge about the vendor while a decrease was seen in complaints about the effective compliance with the commercial Code of Conduct and, to a lesser extent, those on 'double billing' and on the regularity of switching. Market issues also concern complaints (increased) managed according to the special conciliation procedure.

Communications on electricity bonuses (increased) focused on the failure to issue the bonuses themselves and on problems due to the misalignment of databases, with a decrease in those on the validation of demand by distributors.

As far as communications on contracts are concerned, the main issues detected are those on default payments (C^{MOR}), under the indemnification system, and those on switching, which have remained largely unchanged since 2015. Finally, with regard to connection and repairs, communications received increased slightly and mainly concerned take-overs, operation deadlines and the activation and variation of power.

Table 3.23 Subject of communications received by the Energy Consumer Help-Desk

SUBJECTS	2015		2016	
	NUMBER	SHARE	NUMBER	SHARE
Billing	6,906	26%	4,718	19%
Market	4,894	18%	6,228	25%
Bonuses	3,335	12%	3,235	13%
Contracts	7,770	29%	7,647	30%
Connections/Repairs	916	3%	1,085	4%
Technical quality	852	3%	628	2%
Metering	552	2%	405	2%
Prices and Tariffs	433	2%	390	2%
Commercial quality	273	1%	292	1%
Prosumers	547	2%	423	2%
Non-Competence	361	1%	298	1%
TOTAL	26,839	100%	25.349	100%

Source: AEEG processing of Energy Consumer Help-Desk data.

3.2.2.2 Recommendations on supply prices, investigations and measures to promote effective competition

Regarding tariff regulation, in 2016, the Authority initiated, through a simplified procedure, seven sanctioning procedures against as many operators for providing incorrect information when determining the tariffs for the electricity distribution service. All the proceedings were concluded following the participation of the operators in the simplified procedure, as they had paid the

sanctions at a reduced amount for a total of € 167,050 and showed they had ceased the disputed conduct.

The Authority also closed a proceeding against a municipality for an infringement concerning tariffs for electricity transmission, distribution, measurement and sale services, tariffs for connection services, installation of electronic meters, compensation for the cost of supplying electricity to customers experiencing hardship and the transparency of billing documents, with the application of a total fine of € 44,900.

In addition, the Authority imposed an overall fine of € 35,500 on an operator, following a determination of tariff violations and compensation for the cost of supplying electricity.

In 2016, a sanctioning was also initiated, through a simplified procedure, for breaching of the obligation to communicate to the end customers in case of termination of the electricity transport contract due to the vendor's non-compliance.

A sanctioning procedure was then concluded with which various violations concerning the commercial quality of the sales service were found, including: erroneous classification of written complaints and bill correction requests from end customers as simple information requests; failed or delayed provision of automatic indemnities in favour of the end customers in the event of non-compliance with the standards required by the regulation; the lack of adequate justification in responses to complaints and billing correction requests. The final sanction imposed was € 802,000.

Furthermore, with the approval of the commitments submitted by the operator, a procedure was initiated for the failed or delayed provision of the automatic indemnities required by the regulation for failure to meet the specific commercial quality standards for the sale of electricity.

Measures for the effective promotion of competition

In the electricity sector, Law no. 125 of 3rd August 2007, completed the liberalization of the retail market and at the same time instituted the standard offer service, regulated by the Authority, and intended for domestic customers and small businesses who do not choose a vendor in the open market. The standard offer service has two purposes: to ensure, on the one hand, the continuity of the electricity service (universal service function) and, on the other, a specific contractual quality at reasonable prices (price control function). The service is regulated by the Authority in accordance with the principles of temporariness with respect to the process of opening up market and proportionality, identified by the European Court of Justice[145].

Given the existing market context and taking into account the principle of temporariness, the Authority has launched a reform programme[146] (so-called Roadmap) with the overall objective of developing an efficient electricity retail market where open market supply will become the standard means of supply for small customers (domestic customers and small businesses). The principle of proportionality, however, is based on the adoption of measures consistent with actual market evolution. Therefore, the options for action were assessed with regard to both supply and demand conditions. In other words, actions were calibrated to take into account the actual

[145] Ruling of the European Court of Justice – Grand Chamber, 20th April 2010, procedure C-265/08 .
[146] With resolution of 4th June 2015, 271/2015/R/com. .

capacity of small customers to grasp the opportunities offered by the market and its evolution over time.

The Authority's action was therefore twofold.

The first line of action involved the reform of the standard offer service, in order to progressively make it more consistent with its role as universal service that it is destined to assume, with the confirmation of the open market as the only normal means of supplying electricity to most customers. This has required a reassessment, amongst other things, of how to determine the economic conditions of the standard offer service, in particular as regards the charges to cover the costs of supply[147] and the marketing costs for which it is reasonable to expect - once the standard offer service evolves, assuming the connotation of universal service used by an ever-smaller number of customers - that unit values per customer will increase beyond current ones, moving away from the price conditions that customers normally have access to when being supplied on the open market.

The second line of action is aimed at supporting the maturation of the retail market in the small customer segment, facilitating access to the market through an evolution of the protection mechanisms that is "guided and supervised" by the Authority, with the phasing out of the current alternation between the standard offer service and the open market through the introduction of *Tutela SIMILE* (see above).

In 2016 actions were defined in order to facilitate the gradual absorption of price protection mechanisms and to enable the mass retail market to mature and therefore the voluntary and conscious exit of the end customers from the current standard offer service towards the open market.

Tutela SIMILE

As part of the process of reforming market price protection mechanisms, a consultation document was published in February 2016 [148], which developed the Authority's final guidelines for the reformed standard offer service, with the introduction of *Tutela SIMILE*, in other words, a service that guarantees a protection similar to that of the actual standard offer regime, but in the open market.

The regulations on the new regime was then approved in the following month of July[149]. The new regime is based on a supervised trading environment designed to facilitate the customer's participation in the open market; In particular, it has been established that:

- end customer participation is optional and is reserved for customers served under the standard offer regime;

[147] These costs are determined by the Authority at the end of each quarter for the following quarter and are therefore necessarily based on estimates of supply costs by the Single Buyer, including any hedging against the volatility of wholesale energy prices.
[148] Document of 25th February 2016, 75/2016/R/eel
[149] With resolution 7th July, 369/2016/R/eel

- only suppliers in possession of predetermined requirements and authorised for this purpose, identified after a special selection procedure conducted by the Single Buyer as administrator of said *Tutela SIMILE*[150] are able to provide *Tutela SIMILE*;
- The Single Buyer conducts quarterly monitoring in order to maintain the requirements necessary for the single supplier's authorisation and reports the results thereof to the Authority;
- the contact between the end customer and the authorised supplier is done through a website set up by the Single Buyer (www.portaletutelasimile.it), where customers can acquire general information about the new regime, compare supplier offers and contact the chosen supplier;
- the customer who intends to choose a *Tutela SIMILE* supplier will be redirected to a specific web page prepared by the said supplier and entirely dedicated to that service, also subject to the Single Buyer's monitoring;
- the contract may be signed between 1st January 2017 and 30th June 2018 and includes standard conditions, defined by the Authority, solely concerning the provision of *Tutela SIMILE* (therefore, the possibility of providing additional services is excluded);
- the economic conditions for the provision of *Tutela SIMILE* are the same as those of the standard offer service, net of a discount in Euro to be paid in the first bill (so-called "one-off bonus"); the discount is differentiated between domestic customers and non-domestic customers and is freely defined by each eligible supplier when applying for qualification for the new regime. The choice to define standard contract terms and economic conditions equal to those of the standard offer service, net of the discount, aims to maximize the comparability of *Tutela SIMILE* offers between each other and with respect to those of the standard offer service, in order to facilitate the customer's choice and, therefore, its switch to the open market;
- the customer can access the new regime only once and the contract lasts for one year from the switching date and is not renewable;
- at the end of *Tutela SIMILE*, the customer may choose whether to continue to be served on the open market by the authorised supplier or another freely chosen vendor or whether to return to the standard offer service; in the absence of an express choice, the customer will continue to be served by the *Tutela SIMILE* supplier, who will apply the conditions set out in the so-called “PLACET offer” described below;
- in order to gain access to the new regime, the final customer can use the help of the facilitators, parties entrusted to assist the customer in understanding and possibly signing the contract. Only consumer associations recognized within the National Council of Consumers and Users (CNCU)[151] and the Associations subscribing to the Memorandum of Understanding between the Authority and the representative organizations of small and medium-sized enterprises as electricity and natural gas consumers can operate as facilitators after

[150] Based on the criteria and time scales defined by Resolution 369/2016/R/eep and according to the provisions of the regulation established for this purpose by the Single Buyer, approved with resolution of 29th September 2016, 541/2016/R/eel.
[151] As per Italian Legislative Decree of 6th September 2005, n.206, the so-called “Consumer Code”.

accreditation through the Single Buyer[152]. In particular, 14 consumer associations and 4 organisations representative of small and medium enterprises are accredited;

- resort to the facilitator by the final customer is free-of-charge. However, facilitators, for each *Tutela SIMILE* contract stipulated with their support, receives a flat-rate contribution[153] of € 15, in the case of a contract concluded by a domestic customer, and € 25, in the case of a contract concluded by a non-domestic customer; the contribution is paid using the Quality of Electrical Services and Selective Promotion of Investments account[154].

Suppliers admitted to *Tutela SIMILE* are listed in Table 3.24 (updated March 2017), indicating the one-off bonus offered by them [155], differentiated by domestic and non-domestic customers.

Table 3.24 List of suppliers admitted to Tutela SIMILE

Amount of the bonuses in €

ADMITTED SUPPLIER	BONUS FOR DOMESTIC CUSTOMERS	BONUS FOR NON-DOMESTIC CUSTOMERS
A.I.M. Energy	50,00	100,00
A2A Energia	40,00	80,00
Agsm Energia	60,00	110,00
Alperia Energy	25,00	10,00
Ascotrade	33,00	70,00
Axpo Italia	40,00	80,00
Bluenergy Group	65,00	100,00
Dolomiti Energia	31,00	61,00
E.On Energia	70,00	120,00
Edison Energia	55,00	40,00
Enel Energia	33,00	90,00
Enercom	20,00	40,00
Enerxenia	30,00	50,00
Engie Italia	115,00	200,00
Eni	106,00	106,00
Estenergy	35,00	50,00
Natural Gas Sale Italy	75,00	150,00
Gelsia	33,00	70,00
Green Network	40,20	82,80
Hera Comm	80,00	30,00
Illumia	65,15	81,15
Iren Mercato	12,00	20,00
Linea Più	65,00	80,00
Sgr Servizi	40,80	96,60
Sinergas	10,00	30,00
Sorgenia	36,00	52,00
Vivigas	84,00	102,00

[152] Indicated in resolution of 20th December 2012, 549/2012/E/com.
[153] Defined by resolution of 24th November 2016, 689/2016/R/eel.
[154] As per art. 48, paragraph 48.1 letter f) of the Integrated Text on the provisions for providing electricity transmission and distribution services (TIT 2016-2019, Annex A to resolution of 23rd December 2015, 654/2015/R/eel).

[155] The one-off bonus is set for the duration of the *Tutela SIMILE* from 1st January 2017 to 30th June 2018.

PLACET offers

As part of the reform of market price protection mechanisms, in March 2017 the Authority placed under consultation[156] the measures aimed at the definition of free price offers under equivalent protection conditions , called PLACET offers, and the revision of the non-economic contractual conditions applicable to the supply of electricity and natural gas in the open market. The aim pursued is to outline, in line with the evolution of the regulatory environment covered by the so-called "*Anti-trust draft law*" and with the consequent emergence of the open market as an ordinary means of supply, a structure of retail markets, which will feature the following:

- PLACET offers for electricity and natural gas, subject to contractual terms established by the Authority, only without the economic conditions, the level of which are freely defined by the parties, although in accordance with a predefined fee structure;
- other open market offers, characterized by pricing and contract terms freely defined by vendors, with the exception of certain contractual conditions determined by the Authority (so-called "mandatory conditions").

In this way, the Authority intends to facilitate the understanding of final customers regarding the commercial offers in the open market, through two lines of action: on the one hand, with the definition of an offer that is easily understandable and can be compared with those proposed by the various vendors (PLACET offer) and, on the other hand, through the formulation of minimum mandatory contractual terms to be included in all open market offers, to protect the final customer.

These provisions will be applied to small customers served in the open market identified, for the electricity sector, with all domestic and non-domestic customers connected to the low-voltage grid and for the natural gas sector with domestic and non-domestic final customers holding PDRs with annual consumption of less than 200,000 S (m^3), with the exception of customers engaged in public service activities.

In particular, the Authority intends to introduce PLACET offers, differentiated according to customer type (domestic and small business), which include:

- so-called "unique" general supply conditions defined by the Authority;
- price levels freely determined by the parties only for payments associated with the supply of raw materials (electricity and natural gas) and its marketing, without the possibility of including additional services, bonuses or charges;
- two possible price formulae, as chosen by the customer, for the part covering the supply and marketing costs of the raw material: fixed price, determined beforehand through negotiation between the vendor and the end customer and maintained unchanged for 12 months, and variable price, which can be updated periodically only on the basis of a predetermined indexation by the Authority and linked to the wholesale value of the commodity.

[156] Consultation document of 30th March 2017, 204/2017/R/com.

It is mandatory for PLACET offers to be included among the commercial offers of each open market operator to be offered to all small customers.

The PLACET offer is therefore an end customer protection instrument, innovative in terms of price control, as well as preparatory for the continuation of the *Tutela SIMILE*, as regards the terms and conditions applicable at the end of the relative contract.

In fact, final customers served under the *Tutela SIMILE* system, within the third month prior to the expiration of the contract, should receive a written communication from their supplier, indicating, among other things, that if the customer does not choose the other options open to them, the PLACET offer will be applied (with the exception of prices) by the Authority.

3.3 Security of Supply

3.3.1 Monitoring balance of electricity supply and demand

Monitoring the balance between electricity supply and demand does not fall under the competence of the Authority: pursuant to Art. 1 of Legislative Decree no. 93/11, it is the responsibility of the Ministry of Economic Development.

3.3.2 Monitoring investment in generation capacities in relation to security of supply

Pursuant to Legislative Decree no. 93/11, the following functions of monitoring capacity investments are assigned to the Ministry of Economic Development:

- network operational security (Art. 7, Directive 89/2005/CE));
- investments in interconnection capacity over the next 5 years or more (Art. 7 Directive 89/2005 / EC);
- envisaged supply and demand for the next 5 years and 1-15 years (Art. 7 Directive 89/2005 / EC).

Capacity market

Legislative Decree no. 379 of 19 December 2003 introduced a new system of remuneration of electricity production capacity (Capacity Market) – intended to increase the degree of coordination between investment choices in production capacity and in transmission capacity of the various players (Terna and the operators) – reducing risks and, at the same time, increasing market competitiveness. The same decree established that the Authority has the task of defining the criteria and conditions based on which Terna is obliged to develop the regulatory framework of the new system of remuneration of electricity production capacity, and that this framework must be approved by decree of the Ministry of Economic Development, once the Authority has been heard. The Ministry of Economic Development, following the positive opinion expressed by the Authority[157], approved the regulatory framework for the Capacity Market with the Decree of 30th June 2014.

For the purpose of accelerating the effects of pro-competitiveness and those guaranteeing the suitability of the electricity system related to the launch of the Capacity Remuneration Market (CRM), in March 2015, the Authority formulated a proposal to the Ministry of Economic Development for the revision of the regulations of said market[158], which envisaged the creation of the market in two phases. In order to verify in advance the compatibility of the Italian capacity market regulations with the EU regulations on state aid, a process of pre-notification of the measure to the EC Directorate General for Competition was set in motion in August 2015, with the coordination of the Ministry of Economic Development. As part of this process the European

[157] Measure of 30th June 2014, 319/2014/I/eel.
[158] Resolution of 10th March 2015, 95/2015/I/eel.

Commission has requested, several times throughout 2015 and 2016, information and data for the evaluation of the necessity, suitability and proportionality of pre-notified measures, as well to avoid that these measures negatively affect competition and trade between Member States.

In October 2016, following specific Ministry of Economic Development guidelines, Terna initiated a consultation on a regulatory proposal for the initial implementation phase of the capacity market and a proposal to amend the regulations for the full implementation phase, previously approved with Italian Ministerial Decree dated 30th June 2014; this was carried out by taking account, on the one hand, of the need to ensure the compatibility of the regulations with the EU regulations on State aid, also having considered the liaisons held in the previous months with the European Commission (see below), on the other, of the need to follow up the Authority's proposal from March 2015, to bring forward the start-up of the capacity market through the definition of the initial phase of implementation of the mechanism. The main amendments submitted for consultation concern:

- the introduction of an initial implementation phase characterised by a forward planning even less than a year;
- the active participation of the demand and non-programmable renewable sources from the first auction of the initial implementation phase.
- the active participation of the resources located abroad staring from the first auction of the full implementation phase;
- the elimination of the minimum premium and the introduction of multi-year contracts for newly produced capacity.

In parallel, with the consultation document issued at the end of 2016, the Authority[159] expressed its guidelines concerning the profiles not dealt with in the proposal developed by Terna, considered relevant for the development of the initial capacity market auctions, that is to say:

- the definition of the maximum value of the premium payable on existing and new capacity;
- the amendment of the contractual obligations envisaged for the signers of capacity supply contracts with particular reference to the structure of the reference prices;
- the definition of the criteria for the calculation of the consideration to cover net capacity supply charges applied to the dispatch users in withdrawal owning selected consumption units in the capacity market.

European Commission sector inquiry on productive capacity remuneration mechanisms

In April 2015, the European Commission launched a sector inquiry on State aid in the form of productive capacity remuneration mechanisms, intended to acquire information to assess the suitability of these mechanisms and to guarantee a sufficient supply of electricity without distortions of trades and competition. The survey integrates the Commission's Energy Union

[159] See Document of 1st December 2016, 713/2016/R/eel.

strategy, contributing to the pursuit of the objective of making the energy supply more secure and reliable and laying the foundations for establishing whether the capacity procurement mechanisms are pro-competitive and based on a market approach, as indicated in the *EU guidelines on State aid for environmental protection and energy 2014-2020*, in force from July 2014.

As part of the inquiry, the Commission sent a questionnaire to the public authorities, network managers and some market operators of a representative sample of member states that have adopted or intend to adopt capacity mechanisms. In June 2015 the Authority transmitted its responses and comments to the Commission, published under the title *Sector inquiry on capacity mechanisms in the electricity sector – Responses to the questionnaire sent by the European Commission to the Authority.*

In April 2016, the Commission divulged the preliminary conclusions of the inquiry and asked the parties involved to present their observations. In July, the Authority sent its comments, published under the title *Sector inquiry into capacity mechanism – Comments on Annex 2 to the staff working document participation of cross-border resources in capacity mechanisms*, dealing with a number of technical aspects relative to the participation of foreign resources in capacity mechanisms defined at a national level.

In particular, the Authority stressed that the primary objective of capacity mechanisms is to ensure the adequacy of the electricity system and that, therefore, capacity located abroad would only be able to contribute effectively to achieving this objective when there are agreements between the system operator purchasing the capacity and the operator in the country where the capacity is located. These agreements should be intended to guarantee that, in case of need, foreign capacity is effectively delivered to the electricity system that has contracted it.

Following a further request for information, the Commission published the *Final report on the sector inquiry on capacity regulation mechanisms* in November 2016. Among the different mechanisms examined, the Italian capacity market is mentioned in the report as a good example from different points of view, it is emphasised how the Italian mechanism is:

- an efficient instrument for the management of structural failures typical of the electricity markets and non-distortionary for the single European electricity market;
- the only system, even with regard to the other capacity markets (French, English and Irish), able to provide a medium- to long-term marker at local level on the value of the capacity, as it is based on a zonal structure; this allows better coordination in decisions regarding investment in generation and transmission capacity, incentivising investments to be made, above all, in the geographical areas of the electricity system that are in deficit;
- the only system that provides penalties in the case of non-fulfilment defined with a pure market criterion, as the operator selected is obliged to make its capacity available and, in the case of non-fulfilment, to pay a penalty commensurate with the damage done to the electricity system due its non-compliance;
- as is the case with the capacity market being implemented in Ireland, an instrument that limits the risk of over-remuneration of the capacity, by limiting, through the stipulation of structured option contracts between Terna and auction-selected capacity suppliers, the possibility for the latter to exercise market power in energy markets;
- open to the participation of different types of capacity in full respect of the principle of technological neutrality.

3.3.3 Measures to cover peak demand or shortfalls of suppliers

The measures to resolve issues of peaks in demand or lack of supply of one or more providers does not fall under the competence of the Authority: pursuant to Art. 1 of Legislative Decree no. 93/11, this is the responsibility of the Ministry of Economic Development.

4 THE GAS MARKET

4.1 Network Regulation

4.1.1 Unbundling

Unbundling regulations

The operational and accounting unbundling regulations are common to both the electricity and natural gas sectors. Therefore, please refer to that explained under paragraph 3.1.1.

Certification of transmission system operators

With the measure[160] adopted alongside the Greek and Albanian regulators (RAE and ERE), the final decision was made on the certification of the company TAP AG, as independent natural gas transmission operator in accordance with art. 10 of Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 and paragraph 4.5.2 of *Energy Regulators Joint Opinion on TAP AG's Exemption Application*.

With the final decision, regulators, on the basis of further elements provided by TAP AG, have confirmed what was already envisaged in the preliminary decision[161], i.e. they certified TAP AG both on the basis of the independence requirements established by Directive 2009/73/EC and on the commitments, by the same, which provide for the gradual fulfilment of all other independence requirements by the definitive date of commencement of commercial activities and infrastructure management.

In the same decision, the authorities also provided for their arguments in response to specific comments in the opinion of the European Commission and to support the final certification of TAP AG. These arguments are based on the assumption that:

- at the moment, TAP AG does not act as a natural gas transport operator and mainly carries out the construction of the natural gas pipeline. As also recognized by the Commission, the independence requirements provided for by the directive can only apply to the limited commercial operations carried out by the company in this phase (capacity allocation);
- commercial activities carried out by TAP AG during the construction stage of the gas pipeline are and will be conducted in a context completely regulated by the Authorities' specific measures (*Guidelines*) which will guarantee their performance according to non-discriminatory methods;
- during the construction of the gas pipeline TAP AG was subjected to a functional unbundling regime by the authorities, that envisages the preparation of a compliance programme (approved by the authorities) and the appointment of a compliance officer, in order to ensure the conduct of commercial activities in a non-discriminatory manner and the non-disclosure of

[160] Resolution of 7th April 2016. 172/2016/R/gas.
[161] Resolution of 26th November 2015. 566/2015/R/gas.

commercially sensitive information to the shareholders of the company, who sometimes have interests in the production and supply of gas in the markets served by the pipeline.

Lastly, the regulatory authorities shared the observation of the European Commission, which reaffirms the need for all the TAP AG staff employed in commercial activity to immediately comply with the independence requirements provided for by Directive 2009/73/EC and not, as provided for in the preliminary decision, from the definitive and complete start of commercial activities and management of the pipeline.

The Authority has filed the measure[162] for recertification of Snam Rete Gas, as natural gas transport system operator. The process of recertification was initiated in[163] the light of the change in the ownership of the company as a result of the sale of the shareholding of *Cassa depositi e prestiti* to entities incorporated under international law and to a group of Italian institutional investors. As a result of appropriate investigations, the Authority has established the absence of the necessary conditions to give impetus to a new certification procedure in accordance with art. 10 and 11 of Directive 2009/73/EC and art. 3, paragraph 1, of Regulation (EC) 715/2009.

4.1.2 Technical functioning

Economic-merit balancing for natural gas

In the course of 2016 the regulations on natural gas balancing was subject to a profound reform which has led to the definition of the transition between the old regime, defined in 2011[164], and the new model, in force from 1st October 2016[165], which fully transposes the regulation (EU) 312/2014 of the Commission of 26th March 2014, establishing a Network code related to the balancing of the gas transport networks. For information on the first phase of the reform please refer to last year's Annual Report.

Considering that in Italy an economic-merit balancing regime had already been in force since 2011, with some of the characteristics contained in the above mentioned European regulation, the implementation of the regulation has not occurred completely *ex novo*, but from a pre-existing base, which has allowed us to avoid the introduction of transitional and progressive measures provided for by the regulation itself. In any case some interventions have been made necessary in order to adapt existing processes and information infrastructure to new needs.

In primis the Authority acted[166] on the resolution of contractual congestion at storage input and output points, an essential prerequisite to guarantee the liquidity to the new market, especially in the Italian context in which storage is the main source of intraday modulation. This was then followed by the finalization of the Network , Storage and regasification Codes , which ended with

[162] Resolution 16th June 2016, 318/2016/R/gas.
[163] With the resolution of 29th January 2015, 20/2015/R/com.
[164] Resolution of 14th April 2011, ARG/gas 45/11.
[165] Resolution 16th June 2016, 312/2016/R/gas.
[166] Resolution of 21st April 2016, 193/2016/R/gas.

the relative approval of the proposed amendments[167], as well as with the approval of the outline of conventions between Snam Rete Gas and the Energy Markets Operator (GME), required for the management of the day ahead market (MGP) and the intraday market (MI)[168].

The existing market platform PB-gas has been maintained on a temporary basis and with a different function: no longer as a tool for balancing but as an organised market for the trading of gas in storage, with consequent amendment of the related regulations[169].

Finally[170] the Authority has defined the parameters of the incentives and the date from which the performance of Snam Rete Gas is measured, without prejudice to the need to monitor its evolution and to intervene with any corrections after the first six months if necessary.

Quality of gas distribution and metering services

At the end of 2013 the regulation concerning the quality of gas distribution and metering services for the regulatory period 2014-2019 [*Regolazione della qualità dei servizi di distribuzione e misura del gas per il periodo di regolazione 2014-2019 – Parte I del Testo unico della regolazione della qualità e delle tariffe dei servizi di distribuzione e misura del gas per il periodo di regolazione 2014-2019* (RQDG)] was approved[171]. The RQDG governs certain activities that are relevant to the safety of the gas distribution service. These include rapid response, inspection of the distribution grid, the recognition of gas leaks following inspections or due to reports by third parties and the odourisation of the gas. This regulation has the objective of minimising the risk of explosions and fires caused by the distributed gas and, therefore, has the ultimate aim of protecting people and property from damage due to accidents caused by the distributed gas.

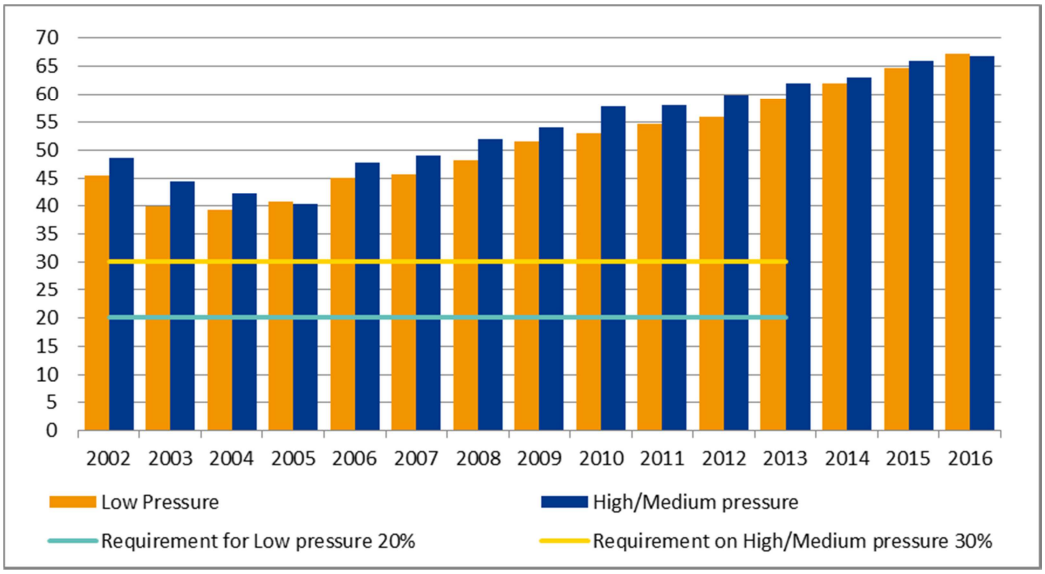
In July 2016, the Authority made[172] some changes to the RQDG 2014-2019, with effect from 1st January 2017, concerning the provision of technical data required of the distributor by the vendor. Particularly are envisaged: a progressive reduction in the period for data provision, the standardisation of the amount of compensation due from the distributor to the vendor, and the reduction of the time limit for the payment of compensation to 6 months.

The graphs and tables below show the evolution of safety of the gas sector, some from 2001 wherever possible, other with sole reference to the activities carried out in the year covered by this Report.

Figure 4.1 shows the quantity of network inspected for the period 2002-2016. In particular, until 2013 regulations provided for a mandatory annual minimum, from 2014 they introduced an obligation to inspect 100% of the network in the rolling three years (high/medium pressure network, HP/MP) or in the rolling four years (low pressure network, LP). For 2015 the increasing annual trend that has now been recorded for several years is confirmed. More generally, network inspection has the objective of intercepting gas leaks thereby favouring greater safety for citizens.

[167] Resolutions: 28th June 2016, 357/2016/R/gas; 1 September 2016, 475/2016/R/gas; 8th September 2016, 487/2016/R/gas; 19th January 2017, 14/2017/R/gas.
[168] Resolution of 29th September 2016, 539/2016/R/gas.
[169] Resolution of 20th October 2016, 584/2016/R/gas.
[170] Resolution of 6th October 2016, 554/2016/R/gas.
[171] With the resolution of 12th December 2013, 574/2013/R/gas.
[172] Resolution of 21st July 2016, 413/2016/R/com.

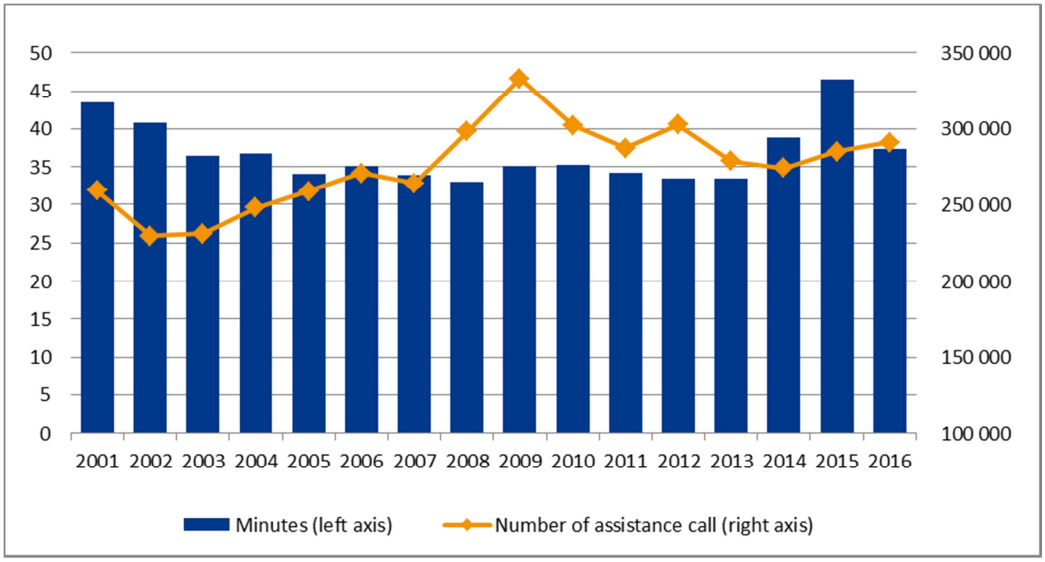
Figure 4.1 Percentage of network inspected since 2002



Source: Declarations by distributors to Authority.

Figure 4.2 Rapid response on distribution system 2001-2016

Number of calls and time to arrive on the scene of the call (in minutes)

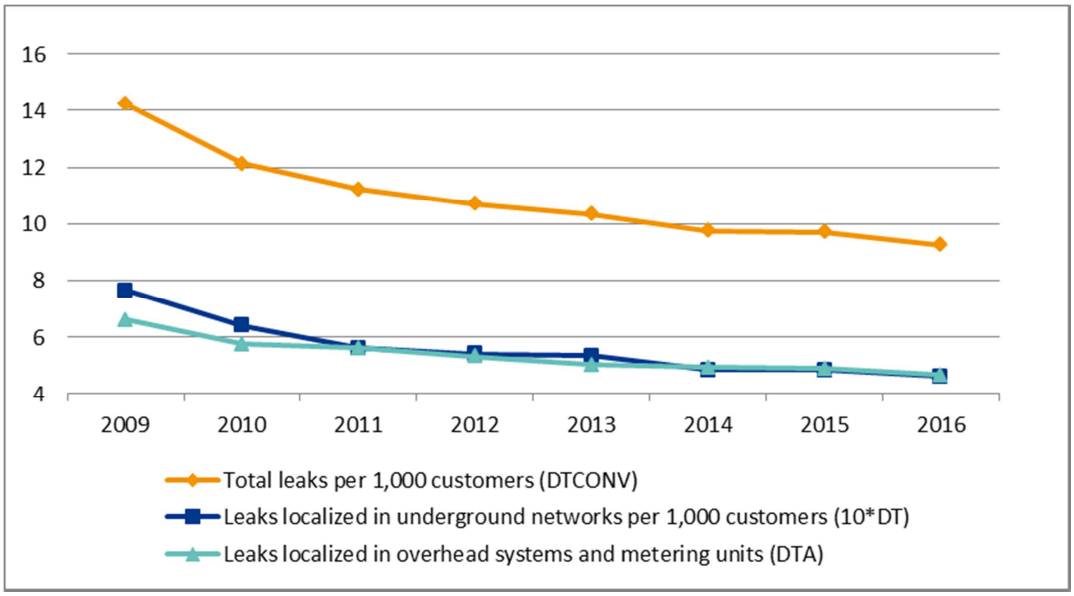


Source: Declarations by distributors to Authority.

With regard to rapid response requirements, Figure 4.2 shows that in 2016 the national average time to arrive on the scene of the phone call) was less than 38 minutes, with approximately a 9 minutes improvement compared to the national average time recorded in 2015. The requirements provide for an annual minimum percentage of 90% for arrival times to the scene of call for rapid response within the maximum time of 60 minutes. The obligation to record calls introduced by the RQDG with effect from 1st July 2009, with the customary campaign of inspections of companies' rapid response service for natural gas implemented with the aid of the Guardia di Finanza (the Italian Tax Police), increasingly induces companies to record data accurately. Furthermore, the number of companies obliged to participate in the premium-penalty regulation concerning recovery of safety is steadily increasing and compliance with regulation on rapid response is an essential requirement for the recognition of premiums.

Figure 4.3 Number of leaks located following reports from third parties per 1,000 customers

Plants subject to incentive-based regulation - 2009-2016 Period



Source: Declarations by distributors to Authority.

Figure 4.3 shows the number of gas leaks located after being reported by third parties per thousand customers for the distribution plants subject to premium-penalty regulation: it is highlighted a significant decreasing trend, practically constant for leaks located on the underground network (10*DT) and for leaks on the overhead network (DTA); in 2016 both parameters, 10*DT and DTA were fewer than five dispersions per thousand of final customers, recording a decrease compared to 2015.

Metering

As concerns the metering of natural gas, the Authority has advanced[173] the possible actions and corrective interventions aimed at both de-incentivising the use of estimated readings and inducing distributors to record the actual metering figure.

In particular, these guidelines, proposed for all meters with annual consumption up to 5,000 S (m^3), are distinguished according to the state of accessibility of the meters and can be summarised as follows:

- For accessible meters (traditional and smart type), it proposes to:
  - remove the concept of “reading attempt” with regard to accessible meters, replacing it with the concept of “actual reading”;

[173] With consultation document 22nd September 2016. 518/2016/R/gas.

  - set a minimum annual percentage threshold of meters, both traditional and smart type, with a number of actual readings, equal to that envisaged by the regulation, that each distributor must reach, and penalisation mechanisms of 20 - 30 euros for each meter - below the abovementioned percentage threshold - for which the minimum number of actual readings has not been respected. Both these changes could be applied immediately to all distributors, regardless of their size;

- For partially accessible meters (traditional), it proposes to:

  - set an obligation, for the distributor, to verify the classification of partially accessible traditional meters;

  - set an obligation for the preparation of a register, to be updated annually;

  - subsequently envisage a mechanism aimed at the progressive reduction (within 4-5 years maximum) of the percentage of partially accessible traditional meters, by replacing them with smart meters (in addition to the obligations already envisaged[174]);

- For non-accessible meters (traditional), it proposes to:

  - introduce an obligation for the replacement of non-accessible traditional meters, for which the distributor has not respected the minimum number of reading attempts, with an equivalent number of smart meters (in addition to the obligations already envisaged[175]).

Connection times for the transmission and distribution networks

Data relating to connections are distinguished according to whether they are to gas transmission pipelines or to distribution pipelines. Within each individual type of system, data shows the number of connections and average time to obtain them, excluding the time necessary to acquire any administrative authorisations or for the fulfilment of any obligations by the final customer who requested the connection itself. The average time is indicated in number of working days employed for creating the re-delivery point and any other necessary works to provide the transport capacity, according to the provisions of the contract stipulated.

In 2016, there were 66 new connections to the National transmission network (NTN), of which 57 at high pressure and 9 at medium pressure (Table 4.1). On average, this required a waiting time of 30 working days (58.8 days for high pressure pipelines and 10.9 days for medium pressure pipelines). Compared to 2015, last year the same number of connections were created overall: five more on the high pressure network and five less on the medium pressure transmission network. However, the average time for creating the connections changed significantly compared to the previous year in both cases: it almost halved in the case of high pressure networks and more than doubled in the medium pressure networks (but this figure tends to reflect the diverse composition of the companies that respond to the questionnaire each year).

[174] Annex to the resolution of 27th December 2013, 631/2013/R/gas.
[175] Annex A to resolution 631/2013/R/gas.

For the distribution network a decline in the number of connections created can be observed (Table 4.2): in 2016 this was equal to 122,109 compared to 130,703 in 2015. As always, the majority of connections were made to the low pressure network (97%) and the rest to the medium pressure network. Conversely to what has been recorded for transmission, a significant increase for the waiting times for connections has been recorded, going from an average of 28.5 working days to 258.6 working days. This marked extension is due to the increase in the average time for high pressure connections. Excluding these from the average, it results that compared to 2015 the average time for obtaining a connection increased from 11.2 to 16.3 working days.

Table 4.1 Connections to transmission networks and the average connection times

Number and average time in working days

PRESSURE	2015		2016	
	NUMBER	AVERAGE TIME(A)	NUMBER	AVERAGE TIME(A)
High pressure	52	100	57	58.8
Medium Pressure	14	4.4	9	10.9
TOTAL	66	52.2	66	30.0

(A) Excludes time required to obtain any necessary authorisations.

Source: Annual Survey of Regulated Sectors.

Table 4.2 Connections to distribution networks and average connection times

Number and average time in working days

PRESSURE	2015		2016	
	NUMBER	AVERAGE TIME(A)	NUMBER	AVERAGE TIME(A)
Low Pressure	2	62.5	1	746.0
High pressure	3,903	16.2	4,136	24.9
Medium Pressure	126,798	6.8	117.972	7.8
TOTAL	130,703	28.5	122,109	259.6

(A) Excludes time required to obtain any necessary authorisations and time required for final customers to fulfil own obligations.

Source: Annual Survey of Regulated Sectors.

Access to the transport service

The Authority has introduced[176] some changes to the system for managing the capacity overrun between the capacity allocated and the capacity used at cross-border gas pipeline interconnection points, in order to make the system coherent with the current allocation procedures, which enable users to reserve capacity products of a duration lower than a year.

[176] Resolution of 26th May 2016, 270/2016/R/gas.

Over the course of 2016 the Authority also launched[177] a pilot project for the reform of the regulations concerning capacity allocation at the re-delivery points of the gas transmission network that supply electricity generation plants. The trial reform (pilot project), aims to carry out the transition towards more flexible and efficient allocation mechanisms, modelled on those adopted at cross-border interconnection points, and is included within a broader reform pathway that initially concerned electricity generation plants. These plants, other than being limited in number, have highlighted greater issues compared to the current regulation, including due to the significant development of renewable sources, with regard to the predictability of the gas usage profile.

Finally, the Authority has completed[178] the process of implementing the European provisions relating to the management of congestion at cross-border interconnection points of the national gas pipeline system (*Congestion management procedures*, CMP regulation)[179]. In particular, provisions on the non-systematic use of the capacity allocated at cross-border interconnection points of the national gas pipeline system have been updated and the *use-it-or-lose-it* mechanism on a *day-ahead* basis has been introduced as a tool for resolution of contractual congestion.

Access to storage service

As for several years, in the thermal year 2016-2017 the allocation of storage capacity also occurred on the basis of market criteria. Once more the market situation in Europe and Italy is characterised by very low seasonal differentials that, at least in the first part of the summer half-year of 2016, make purchasing of storage capacity an opportunity for operators rather than a necessity. This is due to the availability of winter gas at prices just above those of summer gas.

This situation, which compromises storage companies' opportunities to generate revenue, has made it necessary, in 2016 as well, to define a sterilisation mechanism (with either credit or debt balances) of the financial impacts on storage companies arising from auction procedures for the allocation of storage capacity[180]. In particular, the mechanism according to which the Energy and Environmental Services Fund (CSEA) monthly balances the difference, in favour of storage companies, between the revenues that would have been received by these companies with the application of previous tariff prices envisaged by the Authority, and what is actually billed based on the results of auctions has also been renewed for 2016. The mechanism, referring to the period 1st April 2016 - 30th March 2017, is substantially similar to that activated last year[181]. Furthermore, an investigation has been launched[182] on the status of the services provided by storage fields in concession to the company Stogit. In implementation of the provisions of the decree of the

[177] Resolutions 24th June 2016, 336/2016/R/gas, and 4th August 2016, 470/2016/R/gas.
[178] Resolutions 21st July 2016, 422/2016/R/gas and 4th August 2016, 464/2016/R/gas.
[179] The CMP regulation, on the other hand, sets out the European rules for the management of so- called "contractual congestion", i.e. situations in which transmission capacity is low because it has been entirely allocated – often on a multi-year basis – when (technical) physical capacity is still available. The CMP regulation requires transmission system operators to make any capacity deriving from the application of specific congestion management procedures available to users. In Italy the first step of the process of implementing the CMP regulation was launched in 2013, with the approval of the resolution of 26th September 2013, 411/2013/R/gas.
[180] Resolution 16th June 2016, 323/2016/R/gas.
[181] Resolution 16th April 2015, 171/2015/R/gas.
[182] Resolution 323/2016/R/gas.

Ministry of Economic Development of 14th February 2017, the Authority has defined[183] the criteria for allocation of storage capacity for the thermal year 2017-2018, confirming both the general structure of storage services[184] (peak service and uniform service) and the organisational method of the procedures introduced in 2014 (monthly sequential auctions)[185].

The intervention is part of a market context in which the seasonal differentials in gas prices are lower than the costs connected with the purchase of storage capacity and its use. Also for 2017, in each allocation procedure, participants are invited to submit their bids for the storage capacity, for uniform and peak services, divided into two different products:

- a first product which provides for the availability of injection capacity from the month following the month of allocation, until the end of the injection phase (product with seasonal injection);
- a second product which provides for the availability of injection capacity exclusively in the month following the month of allocation (product with monthly injection).

In view of the storage capacities that were made available following the expiry, on 31st March 2016, of the five-year storage contracts signed in accordance with Italian Legislative Decree n.130 of 13th August 2010 (equal to over 2.5 billion cubic metres), Italian Ministerial Decree of 14th February 2017, in the context of the uniform service, confirmed, for 2017 as well, the new features introduced for 2016, as follows:

- the offer of an integrated regasification and storage service to facilitate the importation of new LNG into Italy in the summer, ensuring, for those who require it, the storage capacity required for the corresponding volume of gas until the following winter;
- the use of market references, in place of tariff references, for the allocation at auction of storage capacity on a multi-annual basis (two years, as provided by the mentioned Ministerial Decree).

The Authority has defined[186] the criteria for the calculation of the reserve auction prices for the allocation of storage capacity. The reserve prices are not disclosed to the system, as established by the Decree of the Ministry of Economic Development of 14th February 2017.

The Authority has governed[187] the criteria for performing the procedures for the allocation and transfer between users of storage capacity for periods equal to and less than one month. These provisions, consistent with the launch of the new balancing regime provided for in Council Regulation (EU) 312/2014, which the Authority has applied from 1st October 2016[188], have introduced both a day-ahead market for the allocation of continuous and interruptible storage capacity, and the possibility for users to resort to the over-nomination of storage during the gas

[183] Resolution of 16th February 2017, 76/2017/R/gas.
[184] The structure of the storage service was defined in 2013 with the resolution of 21st February 2013, 75/2013/R/gas (peak service and uniform service).
[185] Resolution of 27th February 2014, 85/2014/R/gas.
[186] With the resolutions of 23rd February 2017, 83/2017/R/gas and 84/2017/R/gas.
[187] Resolution 193/2016/R/gas.
[188] Resolution 312/2016/R/gas.

day. In parallel, the methods for carrying out the allocation procedures, as well as the destination of the proceeds arising from the same procedures, were governed.

Access and provision of regasification services

With the aim of increasing and diversifying the sources of supply in Italy, the Decree of the Ministry of Economic Development of 6th December 2016 has confirmed, for 2017 as well, the possibility of allocating regasification capacity through auction procedures, with a reserve price set by the Authority. Therefore the Authority has governed[189] the methods for performing the auction procedures for the allocation of regasification capacity (and storage capacity for the integrated service); subsequently[190] the criteria for the calculation of the reserve auction prices for capacity allocation for the integrated service were defined. These reserve prices were not disclosed to the system.

The Authority has put forward[191] its guidelines in relation to the introduction of market criteria for the allocation of regasification capacity. In particular, the introduction of market mechanisms based on auction procedures for the allocation of both long and short term regasification capacity has been proposed; moreover the first evaluations on the most efficient auction mechanisms for the allocation of the various capacity products, as well as on the criteria used for the definition of the reserve prices to be associated to the same products, have been outlined.

Oversight of the gas system safeguard measures

Articles 4 and 8 of Legislative Decree no. 93/11 set out the safeguard measures and plans which the Ministry of Economic Development must implement in the event of a sudden crisis on the energy market and when the physical integrity or safety of people are threatened, as provided for by article 46 of Directive 2009/73/EC. Article 43.3. letter c) of the directive assigns the Italian regulator the task of overseeing the application of such measures by operators, in keeping with the provisions of article 41.1. letter t) of Directive 2009/73/EC.

With regard to the safeguarding of the gas system, the Authority has implemented[192] the provisions of the decree of the Ministry of Economic Development of 18th October 2013, concerning the management and supply, by regasification terminals, of quantities of LNG to keep stored and to make available, in the context of the "peak shaving service". This measure is envisaged in order to cope with any emergency situations in the gas system, determining the basic auction prices according to the cost-opportunity for a user to supply the gas to be immobilised in the regasification plant tanks and to be used in the event of system crisis.

[189] Resolution of 12th January 2017, 6/2017/R/gas.
[190] Resolution of 16th February 2017, 64/2017/R/gas.
[191] Consultation document 1st December 2016, 714/2016/R/gas.
[192] With resolution of 20th October 2016, 585/2016/R/gas.

4.1.3 Network and LNG tariffs for connection and access

Transport

In November 2013 the criteria for determining the tariffs for transport and dispatching of natural gas for the period 2014-2017 were defined[193]. In Italy the transport tariff is divided into three parts:

- remuneration of the transport service on the entry-exit type national network, with matrix cost allocation, 50/50 ratio of entry and exit fees, and 85/15 capacity and commodity ratio;
- remuneration of the transport service on the regional network, for which a single so-called "stamp" tariff applies;
- a variable tariff component linked to the volumes transported.

In autumn 2016 the Authority redefined[194] the tariff regulation criteria for the natural gas transport and dispatching services for the period 2010-2013, in compliance with the judgement of the Council of State n. 2888 of 12th June 2015, which partially annulled the regulations in force in that period[195].

Furthermore, as a result of the verification of the tariff proposals submitted by transport companies, the Authority approved[196] the tariff proposals for reference revenues for the year 2017. Lastly, as usual, it approved[197] the natural gas transport and dispatching charges and the temporary charge for the gas transport metering service for the year 2017.

Regasification

The definition of regulation criteria for the LNG regasification tariffs for the fourth regulatory period (2014-2017) took place in October 2013[198].

Following the verification of tariff proposals submitted by regasification companies, the Regulatory Authority determined[199] the tariffs for the LNG regasification service for the year 2017.

Over the course of the year a procedure for re-determining the regasification tariffs of the company OLT Offshore LNG Toscana was launched[200], following the judgements of the Council of State n.3356 of 26th July 2016 and n.3552 of 9th August 2016. This company created a new terminal in Livorno, which came into operation at the end of 2013, and was exempt, for a period of 20 years, from the obligation of third party access for 100% of the terminal capacity, which it waived. From that waiving has arisen a litigation that mainly concerned the application of the so-called 'guarantee factor' in the tariff regulation of the Livorno terminal, i.e. a tariff incentive recognised for carrying out new investments (in accordance with the current regulation at the

[193] Resolution of 14th November 2013, 514/2013/R/gas.
[194] Resolution of 6th October 2016, 550/2016/R/gas.
[195] Resolution 1st December 2009, ARG/gas 184/09.
[196] Resolution of 17th November 2016, 669/2016/R/gas.
[197] Resolution of 22nd December 2016, 776/2016/R/gas.
[198] Resolution 8th October 2013, 438/2013/R/gas.
[199] Resolution of 14th July 2016, 392/2016/R/gas.
[200] Resolution of 27th October 2016, 607/2016/R/gas.

time) declared to be essential by the Ministry of Economic Development and conceived according to market logic.

Storage

In October 2014, the Authority established[201] the criteria for the regulation of tariffs for natural gas storage services for the 2015-2018 period. The criteria for the calculation of tariff fees were later completed in February 2015, including among others, the removal of variable costs and the application of capacity fees only (space, supply and injection)[202].

Starting in the thermal year 2013-2014, the allocation of a portion of the storage capacity is based on auctions. The fees of the services for that capacity are determined by the market as a result of dedicated auctions. With the subsequent increase in the allocated capacity share through auctions, the storage fee has, therefore, assumed a residual role, since it is only applied to the capacities still allocated through means administered according to priority.

The auctions are open to all operators in the natural gas market and at present regard the allocation of approximately 70% of the storage capacity. Costs are determined by the marginal price method for the first auction for the peak season service and pay-as-bid for all the others.

Distribution

The tariff regulation of gas distribution and metering services (RTDG) was defined[203] at the end of 2013 for the 2014-2019 regulatory period. These provisions were integrated with those regarding concession operations[204].

At the beginning of 2016 a process was initiated[205] for the infra-period updating of the RTDG, in relation to the three-year period 2017-2019, also for the definition of the annual reduction rates of the unit costs recognised to cover operating costs, for the purposes of their application from 1st January 2017.

In November 2016 the Authority's guidelines on this topic were illustrated[206] and the following month the new version of the RTDG was approved[207] , with which the Authority:

- confirmed the annual reduction rates of the unit costs recognised to cover operating costs for the management of the natural gas distribution service network infrastructures, set for the updates of the years 2015 and 2016, also for the tariff updates of the years 2017, 2018 and 2019. This is due to the need to provide a stable and certain regulatory framework, in view of announcing tenders in this context;
- confirmed productivity recovery targets for the activities of installation and maintenance of the metering units and for the activities of the collection, validation and data recording, set at

[201] The resolution of 30th October 2014, 531/2014/R/gas.
[202] Resolution of 12nd February 2015, 49/2015/R/gas.
[203] With the resolution of 12nd December 2013, 573/2013/R/gas.
[204] With the resolution of 24th July 2014, 367/2014/R/gas.
[205] With the resolution of 25th February 2016, 68/2016/R/gas.
[206] With the consultation document 4th November 2016, 629/2016/R/gas.
[207] With the resolution of 22nd December 2016, 775/2016/R/gas.

0 % in the first three years of the fourth regulatory period, starting, at the same time, to monitor costs incurred by companies, to verify the impacts arising from the development of smart meter commissioning programmes;

- has upwardly redefined the unit cost recognised for the marketing service, in line with the companies' actual costs based on the data of the separate financial statements for the year 2015, envisaging an annual reduction rate of the costs equal to 0 % for later updates of the parameter over the course of the fourth regulatory period.

Previously, the Authority has described[208] its initial guidelines concerning the new criteria for the recognition of costs related to investments in gas distribution networks and the identification of caps for the recognition of capital unit costs locations starting up.

As a result of the consultation, in December the Authority established[209] a joint technical round table, between distribution companies, also represented by their sector associations, and the Authority's Offices, with the purposes of defining a shared price scale structure for the recognition of costs relating to investments on the natural gas distribution networks, beginning from the investments in 2018. In particular, the Authority has identified, as the subject of analysis as part of the round table, the following topics:

- the definition of the entries in the price scale;
- the criteria for determining the prices;
- the methods for identifying the physical quantities to be assumed for the purposes of determining the recognised cost;
- the introduction of corrective coefficients to be applied to the price scale, in relation to the effects of exogenous variables that affect the cost levels of the service but which are not reflected in the same price scale;
- the methods for recognising the higher costs related to the performance of extraordinary maintenance relating to replacement or repairs of the assets that already exist.

With the same measure[210], a cap for the recognition of capital unit costs for locations starting up was introduced, beginning from the investments in 2017, consisting of a maximum threshold in terms of expenditure per user served equal to 5,250 €/PDR. This cap, in the event that a share of the investments is covered with public contributions, is applied with reference to the remaining share of investments not covered by public contributions.

In September 2016 the provisions of the RTDG for cases of reclassification of regional transport networks in gas distribution networks were supplemented[211]. With the subsequent decision[212] the value of the gross immobilisations related to the assets subject to reclassification was

[208] Consultation documents 28th April 2016, 205/2016/R/gas and 4th August 2016, 456/2016/R/gas.
[209] Resolution 1st December 2016, 704/2016/R/gas.
[210] Resolution 1st December 2016, 704/2016/R/gas.
[211] Resolution 8th September 2016, 483/2016/R/gas.
[210] Decision 13th October 2016, 21/2016 - DIUC.

conventionally defined and the procedure for submitting requests for determining tariffs for natural gas distribution and metering services, in the event of reclassification, was defined.

Finally, at the end of December 2016, the mandatory tariffs for the natural gas distribution, metering and marketing services, regulated by art.40 of the RTDG, were approved[213] for the year 2017. In keeping with the approach adopted for determining mandatory tariffs in previous years, in order to increase the stability of the tariffs, the volumes of gas used to determine the variable components of the mandatory tariffs have been determined as the moving average of the figures related to the gas distributed in the last available four year period. The same resolution approved the maximum amount of the recognition of the higher charges arising from the presence of concession fees, as referred to in art. 59 of the RTDG, for distributors that have submitted an application and provided suitable documentation.

Metering services on the gas networks

The process launched[214] at the beginning of 2016 for updating the tariff regulation of gas distribution and metering services (RTDG) for the three-year period 2017-2019, has also affected the following aspects:

- the revision of the $\Delta CVER_{unit,t}$ component, which covers the costs relating to the metrological checks of metering instruments, for the purposes of its application from 1st January 2017;
- the determination of components to cover centralised costs for the remote reading/management system and the costs for concentrators, expressed in euro per redelivery point, for the purposes of their application starting from 2017;
- the definition of standard costs inclusive of installation and commissioning costs, to be applied to metering units, expressed in €/metering unit, for 2017 onwards.

The consultation of November 2016[215] outlined the Authority's guidelines on these issues, as well as on the procedures for recognition of costs for the commissioning of class G4 and G6 metering units for the year 2016. In particular, the Authority has proposed to assess a change to the current mechanism for the recognition of costs relating to metrological checks, by providing for the recognition of a standard cost per check, applied to the actual number of checks carried out by the companies.

The same consultation also outlined the outcomes of a data collection exercise concerning the cost of remote reading/management system and the costs of the concentrators for the years 2010-2020. Analysis of the data showed that the costs borne by the companies that have adopted *make* and mixed solutions are on average lower than the costs borne by companies that have adopted *buy* type solutions[216]. Taking into account that, among companies that have adopted *make* solutions, two distinct technological solutions can be seen- one based on point to point

[213] Resolution of 22nd December 2016, 774/2016/R/gas.
[214] With resolution of 25th February 2016, 68/2016/R/gas.
[215] Consultation document 629/2016/R/gas.
[216] With the make solution the company makes the remote reading/remote management system by itself while with the buy solution the company acquires, on a "turnkey" basis, the system from an external supplier.

communications without the use of concentrators and one based instead on the use of concentrators - in order to ensure the neutrality between technologies, the Authority has proposed to consider the introduction of a single component, expressed in euros per redelivery point, to cover both the centralised costs for the remote reading/management system and the costs of the concentrators. On the basis of the analyses carried out, the Authority expressed the intent to comprehensively set the components $t(tel)_t$ and $t(con)_t$, to a value between 2.30 and 2.70 € per redelivery point.

The Authority has also hypothesised to set the level of the standard cost for 2017 at a range between 125 and 135 €/gdm (metering unit), for G4 calibre metering units, and between 160 and 170 €/gdm for G6 calibre metering units.

Subsequently[217], in relation to these issues, the Authority has considered it appropriate to:

- Postpone, to specific further study, the hypothesis of changing the procedures for recognition of the costs for metrological checks, and, pending this further study, to provisionally reduce, on the basis of all the evidence on the actual costs incurred by companies, the unit value of the relative $\Delta CVER_{unit,t\ component}$ from 60 €/gdm to 50 €/gdm;
- To envisage, pending appropriate further study in relation to the costs incurred by the companies, that the centralised costs for the remote reading/management system and the costs of the concentrators incurred up to the year 2017 are recognised at final balance, in any case introducing a cap for the tariff recognitions for the costs incurred in 2017, defined on the basis of the average unit cost for the companies that have adopted *buy* solutions and sized according to the number of redelivery points actually equipped with smart meters;
- Set the standard costs for G4 and G6 class meters at the upper limit of the range indicated during consultation[218], equal to 135 €/gdm, for G4 calibre metering units, and 170 €/gdm for G6 calibre metering units;
- Confirm the standard costs already established for the year 2014 for recognition of investments relating to electronic metering units in classes above G6 carried out in 2017.

With the same resolution was confirmed the approach expressed during consultation, to envisage that, for 2016, the investments related to the G4 and G6 metering units should be assessed based on the cost actually incurred, with a cap equal to 150% of the standard cost, in compliance with what was envisaged for 2015.

Measures concerning tenders by concession area

The process of carrying out tenders for the assignment of the gas distribution service at the level of the optimal territorial area has begun. As regards the measures adopted by the Authority in 2016 in this regard, it is noted that these mainly concerned checks of the deviations between VIR (residual industrial plant value) and RAB (regulatory value of the assets) as well as the analysis of the tender documentation transmitted by the contracting stations. In relation to these checks, the

[217] With resolution 775/2016/R/gas.
[218] Consultation 4th November 2016, 629/2016/R/gas.

Authority expressed its observations, in particular on the calls to tender that present reimbursement values that differ more than 10% from the RAB, as envisaged by article 15. paragraph 5 of Italian Legislative Decree n.164/00.

In February 2016 the standard stratification of the VIR was defined[219] in accordance with art. 25, paragraph 3, of the RTDG. This stratification, defined by type of asset and year of entry into service, is applied in cases where are not available accurate information on the stratification of assets by type and by year of entry into service, which can be deduced from the consistency status and/or from estimates, , or in cases where the stratification has not been published in the call to tender, although accurate information were available.

Exclusion of cross subsidies between activities in the supply chain

The administrative and accounting unbundling requirements for businesses in the electricity and gas sectors were introduced, among other things, with the aim of preventing companies in the electricity and gas sector from conducting cross subsidies between different activities of the supply chain. During the course of 2016, the Authority neither initiated nor concluded any proceedings to ascertain the violation of regulations on accounting unbundling in the natural gas sector; however, it did request[220] that certain distributors provide the data necessary for verifying the appointment of the compliance manager in accordance with article 15 of the Integrated Text on Functional Unbundling.

4.1.4 Cross-border issues

Investment in new network infrastructure and consistency with EC development Plans

Art. 26 of Law No. 115 of 29 July 2015, *Provisions for the fulfilment of obligations deriving from Italy's membership in the European Union (European Law 2014)*, amended Legislative Decree No. 93 of 1st June 2011, that implemented the Third Energy Package, strengthening the Regulatory Authority's powers and its independence from the Ministry of Economic Development.

These measures envisage, inter alia, that the transport network operator is required to submit an annual plan to the Ministry of Economic Development and to the Regulatory Authority, which submits it for consultation to actual and potential network users, publishing the consultation results themselves. In June 2016 the Authority adopted[221] the provisions for consultation of the frameworks of the ten-year development plan for the natural gas transport system prepared by the transport system operator. sThe consultation was concluded on 15th February 2017. The comments received from the parties concerned were transmitted to operators for their analysis and evaluation. Snam Rete Gas played the necessary role of coordination with other operators to prepare a document of counter-arguments, which was presented on 31st March 2017. The plans, comments and counter-arguments were published on the Authority's website.

[219] Decision of 5th February 2016, 4/2016 - DIUC.
[220] Resolution of 14th July 2016, 394/2016/E/com.
[221] Resolution of 28th June 2016, 351/2016/R/gas.

International coordination with ACER and CEER

During the course of 2016, the Authority continued to have multilateral collaborations with other European regulators, through the Agency for the Cooperation of Energy Regulators (ACER), as described in paragraph 3.1.4.

In relation to the natural gas sector, the Authority has actively participated in the ACER work groups responsible for infrastructure management and implementation of the Network codes, with particular reference to:

- ACER's analysis on the best indicators of contractual congestion at interconnection points, for a possible revision of the European guidelines on methodologies for congestion management;
- ACER Opinions on the analyses prepared by ENTSO-E in the context of *Winter and Summer Outlook*;
- ACER opinion on carrying out investments in gas transport infrastructures and on the consistency between the European ten year development plan and the National plans.

In addition, the Authority has participated, contributing with the provision and the validation of the data and information in its possession, in the monitoring activities that in 2016 resulted in the publication of the following reports:

- the *Annual Report* on the activities carried out by ACER;
- the *Annual Report* on the implementation of REMIT;
- the Report on the state of implementation of the Network code on gas balancing;
- the Report on the state of implementation of the Code for gas capacity allocation;
- the Report on the state of implementation of the rules for the management of congestion at gas network interconnection points;
- the Report on the monitoring of wholesale and retail markets for electricity and natural gas;
- the Report on the state of progress of the regional initiatives.

Over the course of 2016 the Authority continued to collaborate with other European regulators, including through the Council of European Energy Regulators (CEER), as described in paragraph 3.1.4. As regards the gas sector in particular, the Authority participated in the drafting of a document that contains the guiding principles that should be taken into account in the definition of the objectives and strategies relating to the security of supply. This document has been prepared to contribute to the review process, initiated by the European Commission, of the European regulation (EU) 994/2010.

The energy market of South-Eastern European countries

Also in 2016 the Authority contributed to the implementation of the Treaty establishing the Energy Community (EnCT) of South-Eastern Europe, as described in paragraph 3.1.4.

As regards the natural gas sector in particular, the *Energy Community Regulatory Board* (ECRB), after having expressed a favourable opinion on the preliminary certification carried out by the Albanian regulator ERE of Trans Adriatic Pipeline AG (TAP AG), highlighted that the same

procedure should be reformulated once the company TAP AG is operational in the management of infrastructure. Furthermore, the *Gas Working Group* gained further insight into the issues concerning: the inter-operability of gas infrastructures, taking into account regulation (EU) 703/2015, network losses on gas distribution network, pilot projects, in collaboration with ACER, *Gas Regional Initiative South-South East* and the inclusion of Contracting parties in ACER's reports on the monitoring of gas wholesale markets.

The energy market in the Mediterranean countries

During the course of 2016, the Authority consistently maintained its international commitment in the Mediterranean, in particular through MEDREG, of which it is the founder and promoter (as already described in chapter 3).

With regard to activities carried out in gas sector, the Natural Gas Working Group (GAS WG), co-chaired by the Portuguese (ERSE) and Greek (RAE) regulators, drafted the report G*uidelines of Good Practice on Capacity Allocation-Work Methodology.* The Authority, in collaboration with the Greek regulator, carried out the first questionnaire aimed at assessing the methodologies adopted in the Member States. The Group then dedicated itself to the A*ssessment of Competition Indicators and Market Process Indicators within MEDREG Members,* with the study of good practices on tariff methodologies.

The activities on energy platforms, promoted by the European Commission, had a decisive boost thanks to the political support of the governments participating in the Union for the Mediterranean, expressed on the occasion of the meeting of Energy Ministries of 1st December 2016, in Rome.

The gas platform is aimed at the creation of a structured dialogue which allows the gradual development of a Euro-Mediterranean gas market, capable of ensuring security of supply and the correct balancing of the interests of producer countries and centres of consumption. In order to achieve the above objectives, the platform will enable the identification of potential gas hubs and an infrastructural development Plan, as well as the identification of projects of common interest for the integration of sub-regional markets through certain technical-economic feasibility studies, to also be carried out with the support of the member countries of the Union for the Mediterranean (UfM) and financial institutions. The work programme envisages a study phase of the current situation and of the prospects (evolution of gas supply and demand, development of infrastructures, etc.) connected to the launch of discussion tables between the various stakeholders (Mediterranean Observatory for Energy and Eurogas).

4.1.5 Compliance

In the past year, no legally binding decisions were adopted by the Agency or the Commission that the Regulatory Authority would have to implement in accordance with Art. 41.1.d) of Directive 73/2009/EC.

Compliance of the tasks entrusted to the Regulatory Authority under the Gas Directive

For a description of the main competences and powers conferred to the Authority by the current laws, see the Annual Report 2013 and the new regulations set out in section 2 of this Report.

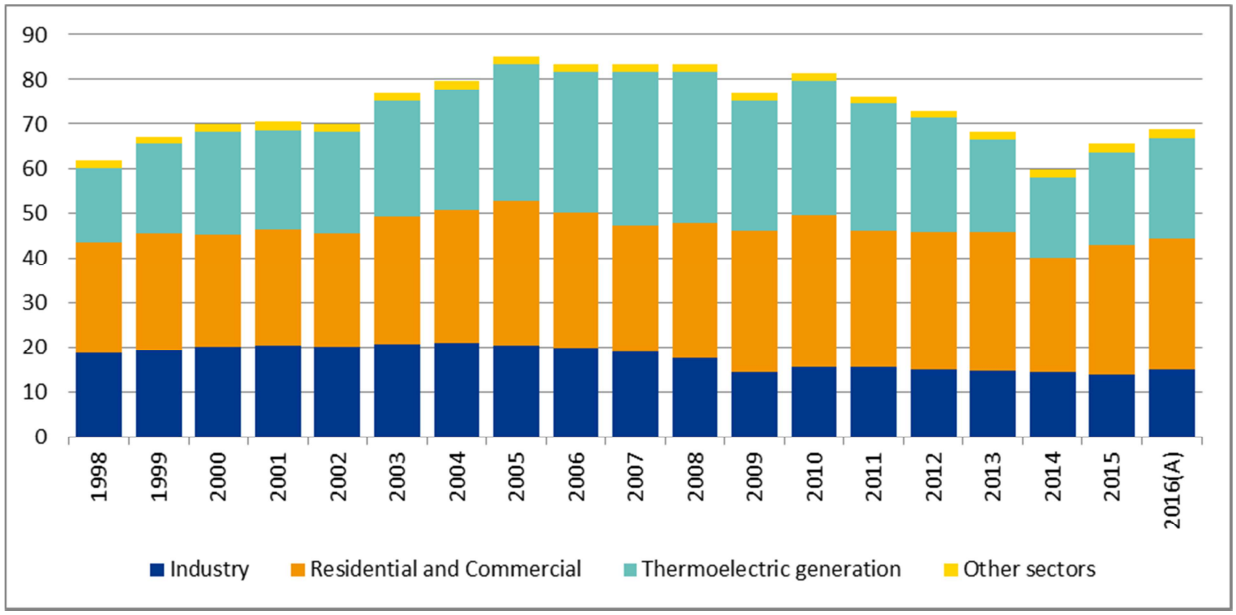
4.2 Promoting competition

4.2.1 Wholesale markets

Over the course of 2016 there has been a strengthening of the economic recovery: GDP has recorded an increase of 0.9% compared to 2015 and the ISTAT index of industrial production has shown an increase of 1.6%.
The sectoral detail of the industrial production index shows that manufacturing sectors that grew the most compared to 2015 are: manufacturing of vehicles (+5.1%), metallurgy and manufacturing of machinery and equipment (+3.6% for both), as well as the electronics (+3.3%). The most gas intensive sectors showed different results: metallurgy markedly increased, as we have just seen; manufacturing of plastics and processing of non-metallic mineral products increased by 2.1%; an increase of 1.4% took place in the manufacturing of chemicals and chemical products; while wood, paper and printing productions decreased by 0.9%.
However, as regards the climate 2016 was similar to 2015, which was warmer than the norm.
In 2016 the gross domestic consumption of natural gas (which includes consumption and system losses), according to the preliminary results disseminated by the Ministry of Economic Development, increased by about 3.4 billion cubic meters, rising to 70.9 G(m^3) from 67.5 g(m^3) in 2015. In percentage terms, gross consumption grew by 5% compared to 2015.

Figure 4.4 Natural gas consumption by sector

G(m^3); values net of consumption and system losses



(A) Provisional data.

Source: Ministry of Economic Development, National Energy Report, various years.

In keeping with the economic trends mentioned above, in 2016 industrial consumption recorded a significant increase, equal to 7.3%. An even higher growth, equal to 8.4%, also occurred in the consumption of thermoelectric generation, favoured in the last quarter of the year also due to the temporary unavailability of about a third of the nuclear power stations in France (largely closed for safety tests ordered by the French Authority for the supervision of nuclear safety), a fact that reduced electricity imports from France. However, the increase in civilian consumption (residential

and tertiary) was more contained, rising by 1.7% compared to 2015. Conversely, the increase in "other uses", which particularly include uses for transport, was less significant compared to the most recent years (4.2%). Gas usage for transport recorded a slight fall (-0.8%), the first after years of continuous increases, especially driven by the incentives for methane cars.
2016 is therefore the second consecutive year of recovery of end demand, which has returned to the levels of 2013 and has reached 80% of the maximum, which was reached in 2005.
The growth in end demand has been accompanied by an adequate increase of net imports (6.6%). The volumes of gas imported from abroad have in fact increased by 4 G (m^3) with respect to 2015, reaching 65.3 G (m^3); on the contrary, exports fell by 9 M(m^3). However, the declining trend in national production (-14.6%) continues, and has been particularly significant in the last year. Over the course of the year withdrawals from storage were greater than inputs; therefore the volumes in storage at the end of the year were 58 M(m^3), lower than the quantities at the beginning of the year. Also taking into account system consumption and network losses, the net value of domestic consumption in 2016 was equal to 68.9 G(m^3), a value 5.1% higher than 2015.
Since, as has been seen, the increase in domestic demand has been met by higher imports, the level of external dependence, measured as the ratio between gross imports and gross domestic consumption, further increased to 92.1%, the highest value recorded so far.

Based on the data collected in the usual A*nnual Survey on the Regulated Sectors* carried out by the Regulatory Authority for electricity, gas and water, in 2015 a total of 5.551 M(m^3) was extracted from 21 companies (the same number as 2015), grouped into 16 corporate groups. Approximately 81.5% of all national production was extracted by the Eni Group, the dominant operator of this segment with an absolutely majority share and far ahead of the second corporate group, Royal Dutch Shell, which has 8.3%. The latter's share - unlike more recent years - has fallen compared to last year, also because production for this group reduced by 34%, more than the average.

According to the preliminary results disseminated by the Ministry of Economic Development, in 2016, Italy imported 65.283 M(m^3), i.e. 4.017 M(m^3) more compared to 2015. On the contrary, exports decreased slightly from 221 to 212 M(m^3). For this reason net imports recorded a growth rate equal to that of gross imports, equal to 6.6%, and bounced back to 65,071 M(m^3) from the 61,045 M(m^3) of 2015.

Figure 4.5 exposes the quantities of gas supplied in the last two years per country of origin[222]. Compared to 2015 imports from Libya (-32%) and from Northern Europe (-60% from Norway, -55% from the Netherlands and -2% from Russia) decreased, while those from Algeria (+150%) strongly bounced back and a small increase (+1%) was also seen from Qatar.
In 2016 exports of gas from Algeria to Italy almost tripled: in fact, the 7,642 M(m^3) in 2015 jumped up to 19,073 M(m^3). After several years of downfall since spring 2013, Algerian exports to Italy via pipeline have started to grow again since the last quarter of 2015 thanks to the gradual return to operation of the deposits that were damaged in that territory, In 2016, as we have seen, these exports have returned to levels comparable to those of 2012, growing at a pace that has also been confirmed in the first few months of 2017.
In recent years several contracts have been renegotiated for the supply of gas in the long term, which has allowed greater flexibility in gas volumes and price dynamics that are more in line with the market conditions which have greatly changed with respect to the pre-crisis period. In the

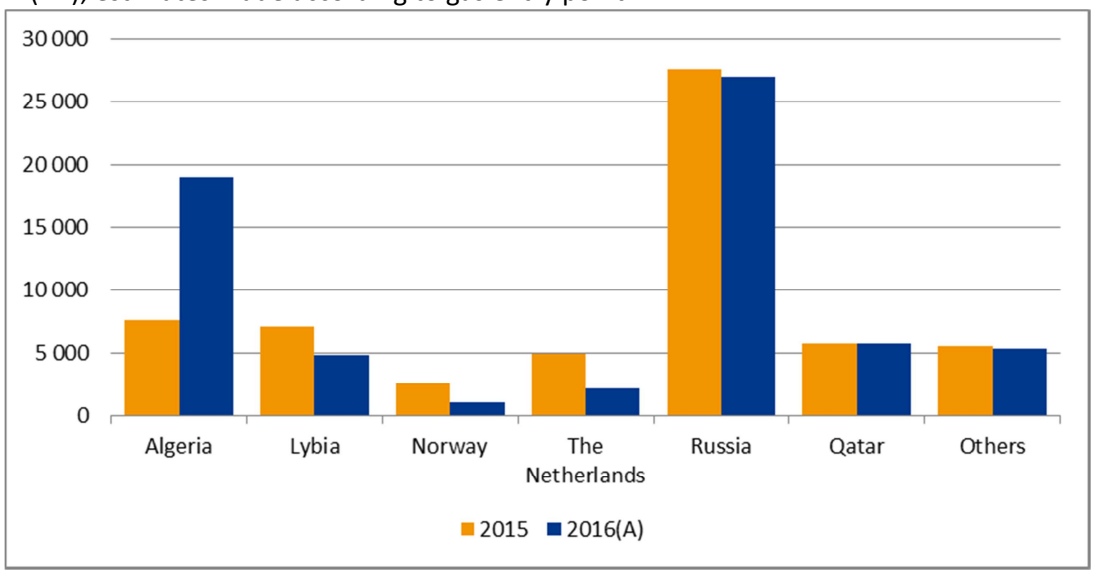
[222] Imports are broken down by physical and not contractual country of origin of the gas. The gas imported through swap arrangements is also accounted for based on its physical origin.

current contracts price formulae that also contain indexation of hub performance are more present.

As a result of these changes, in 2016, the weight of Russia among the countries exporting to Italy decreased by almost four percent, having returned to 41%. Algeria's share of imported gas rose from 12% to 29%, followed by 9% from Qatar which, this year, has exceeded Libya, which decreased from 12% to 7%. In 2016 8% of Italian imports arrived from Other countries. Finally, the incidence of Norway and the Netherlands have decreased even further, which together account for 5 % (against 12% in 2015).

Figure 4.5 Gross imports of gas according to origin

M(m^3); estimates made according to gas entry point



(A) Preliminary data.

Source: Ministry of Economic Development.

According to the (provisional) data collected by the Authority with the Annual Survey on Regulated Sectors, 63.5 G(m^3) were imported into Italy in 2016, 3.9 more than in 2015[223]. The increase was thus 6.5%, practically the same as that estimated in the data from the Ministry of Economic Development[224]. Of the total gas supplied from abroad 5 % , i.e. approximately 3.2 g(m^3), was purchased from the European power exchanges.

As always, the first place in the list of importers was held by Eni, which purchased a total of 33.4 G(m^3) of gas from abroad in 2016, 4.2% more than in 2015. The increase in Eni's imports, lower than the total national increase in imports, brought down the market share of the company to 52.7% (51.2% if calculated on the value of ministerial source imports), from 53.8% in 2015. This is the second consecutive fall since 2010, when - thanks to the antitrust ceilings established by

[223] Figure always from the Annual Survey on Regulated Sectors.

[224] The differences with respect to the ministerial data depend in part on the number of companies that respond to the Regulatory Authority's Annual Survey and partly on discrepancies in the classification of the import data. In other words, it is likely that some quantities that the ministry ranks as imports, in the Regulatory Authority's survey are considered as "Purchases at the Italian frontier", in view of customs clearance.

Legislative Decree No. 164[225] of 23 May 2000 - the foreign portion of gas procured by Eni had fallen to 39.2%. Since then, after the effects of the legislative measure expired, this figure had been constantly rising until 2014, a year in which it reached 56.5%.

Edison's growth in imports was much stronger (+16.3%), second in the standings, procuring 2 G(m3) more than in 2015. Therefore, its share in the import market rose to 23.1% and it closed the gap with Eni by three percentage points compared to the previous year. A good increase was also seen in Enel Trade's imports which rose from 6.7 to 7.2 G(m^3) in 2016. Therefore, Enel Trade remained in third place with a share of 11.4%. As in 2015, the fourth position in the ranking of importers is occupied by ENOI in 2016 as well, whose quantities imported, however, represent a tenth of those of Enel Trade, i.e. the third importer. In fact, the share of ENOI fell to 1.2%.

As in previous years, the groups[226] with a share of over 5% of the total gas procured (i.e. produced or imported) were Eni, Enel and Edison (Table 4.3). Together, these top three importers imported 55.3 of the 63.5 G(m^3), i.e. 87.2% of the gas that entered the Italian market. Considering the quantities also produced nationally, the three groups account for 87.3% of all the gas procured. As in the past, this share is on the increase (it was 86.5% in 2015), due to the growth of the Edison's and Enel's shares not offset by the fall in Eni's share. The three groups are also the only ones that have each a share larger than 5% of the available gas, with an overall share for the three (88.8%) slightly higher than the share of gas procured.

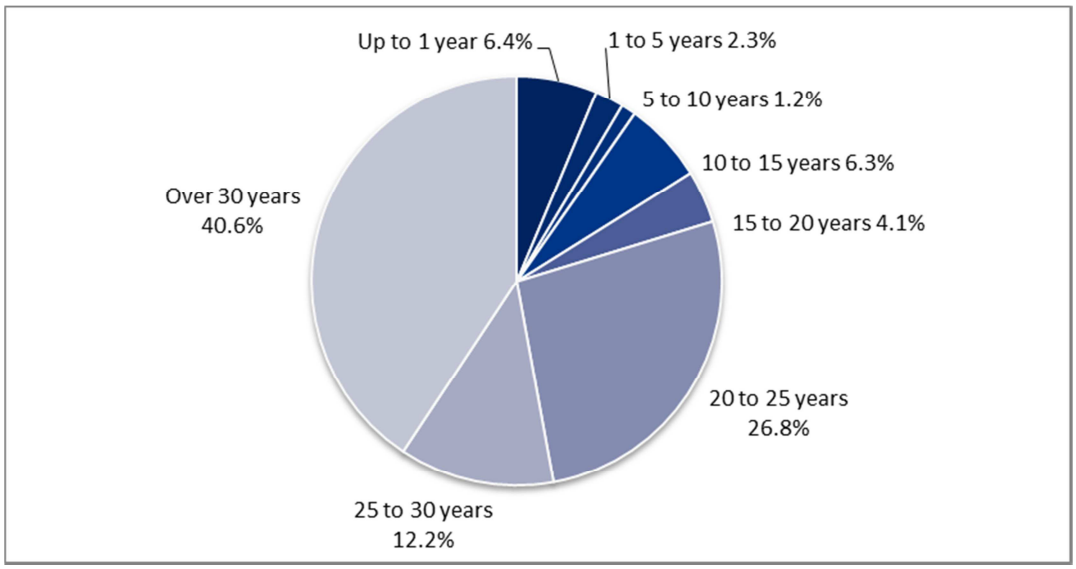
The analysis of the Annual Contract Quantities negotiated in the (annual and multi-annual) import contracts active in 2016 according to the full duration (Figure 4.6) reveals a rather long structure. The share of long-term contracts, that is, those with a duration of over 20 years, stands at 79.7%, an increase compared to last year (76%). The ratio of short-term imports, i.e. those with a maturity of less than five years, decreased (8.6% against 11.7% in 2015), while that of medium-term contracts (5-20 years) fell slightly compared to last year (11.7% instead of 12.3% in 2015) when it was halved (24.1% in 2014). The Annual Contract Quantities underlying the shares expressed in the figure have decreased continuously, while in 2016 the agreed volumes rose to approximately 86 G(m^3). Furthermore, the percentage of spot imports[227], i.e. those with a duration of less than one year, decreased to 6.4% in 2016, against 9.2% in 2015.

[225] Among other measures, the Decree envisaged the establishment of maximum ceilings for imports and sales on the final natural gas market by a single operator (75% of imports in 2002, which is reduced to 61% in 2010), with the objective of determining the conditions for the entry into the imported gas market of entities other than Eni and the other two entities historically present, although with modest shares, in gas imports.

[226] Within the context of the gas market survey, participation in a corporate group is defined based on the specifications in Art. 7 of Law no. 287 of 10 October 1990: very briefly, membership in a group is established even if the investor company has de facto control of the investee company.

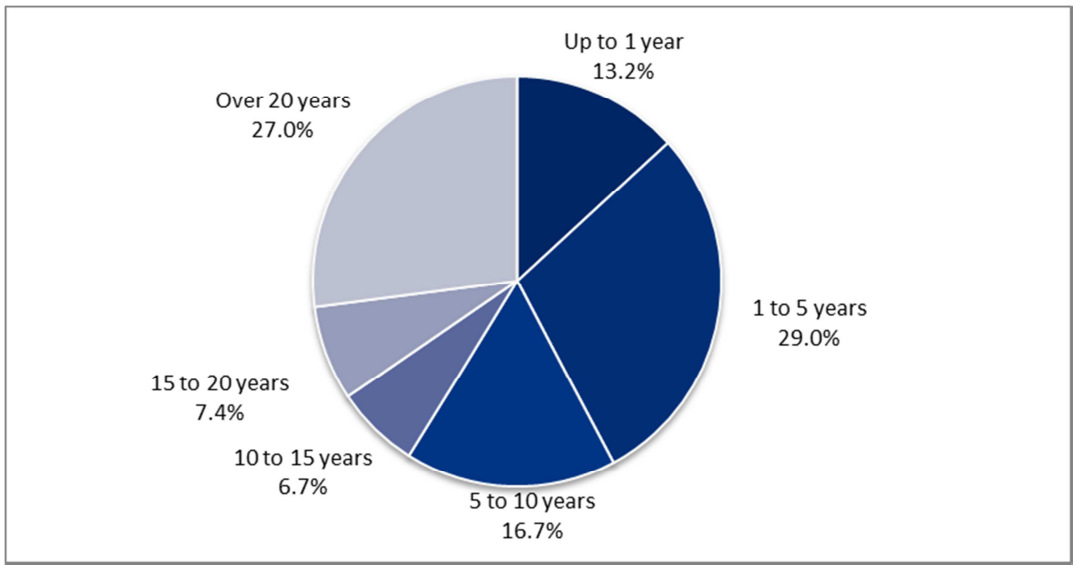
[227] It is worth mentioning that this was assessed, as in past years, while excluding the Annual Contract Quantities of spot contracts that did not give rise to imports in Italy, because the gas was sold directly abroad by the operator active in Italy, who purchased it.

Figure 4.6 Structure of (annual and multi-annual) contracts active in 2016, according to the full duration



Source: Annual Survey on Regulated Sectors.

Figure 4.7 Structure of (annual and multi-annual) contracts active in 2016, according to residual life



Source: Annual Survey on Regulated Sectors.

In terms of residual life, the existing contracts as of 2016 (Figure 4.7) turned out to be overall still quite long, but the contract structure is shortening, albeit very slowly: 58.9 % of contracts (56.2% in 2015) will expire within the next ten years and 42.2% of those (35.8% in 2015) will end within the next five years. 34.5 % of the contracts in force today have a residual life of over 15 years (35.8% in 2015).

Table 4.3 Wholesale market development

Year	Total (A) Demand G(m³)	Peak (B) demand M(m³)/day	Production G(m³)	Import capacity G(m³)/year				No. of companies with a >5% production quota and import capacity	No. of companies with >5% available gas	Three leading group's share of total demand
				Total	Priority access for transit (C)	Priority access for LT contracts	Unreserved access			
2001	125.1	n.d.	15.5	n.d.	n.d.	n.d.	n.d.	n.d.	2	68.2%
2002	111.8	n.d.	14.3	84.0	0.5	77.3	4.2	3	3	67.4%
2003	123.6	n.d.	13.9	84.8	0.5	78.8	3.1	3	3	63.8%
2004	127.3	386	12.9	88.7	0.5	84.6	2.1	3	3	62.4%
2005	138.3	421	12.0	90.6	0.5	73.5	16.7	3	3	66.7%
2006	134.3	443	11.0	92.3	0.5	74.5	17.3	3	3	66.5%
2007	136.1	429	9.7	98.4	0.5	86.1	11.8	3	3	63.8%
2008	151.5	410	9.3	100.3	0.5	96.1	3.7	3	3	57.1%
2009	147.2	436	8.0	110.9	0.3	102.6	8.0	3	4	49.2%
2010	173.5	459	8.3	116.0	0.3	103.1	12.6	3	5	42.3%
2011	178.9	401	8.4	116.3	0.2	103.0	13.0	3	3	42.1%
2012	178.3	464	8.6	116.9	0.2	102.5	14.2	3	3	40.5%
2013	180.8	360	7.7	122.1	0	102.6	19.5	3	3	42.7%
2104	210.9	330	7.1	121.7	0	95.5	26.1	3	3	51.4%
2015	244.5	340	6.8	120.3	0	83.4	36.9	3	3	50.6%
2016	266.9	384	5.8	120.1	0	85.2	34.9	3	3	46.4%

(A) Volumes of gas sold in the domestic wholesale and retail market; including resales and self-consumption.

(B) Injection peak reached in the following days: 26/01/2004, 19/12/2005, 25/01/2006, 18/12/2007, 18/02/2008, 21/12/2009, 17/12 / 2010, 25/01/2011, 02/07/2012, 11/02/2013, 29/01/2014, 03/02/2015, 20/01/2016; the volume indicated includes inputs, supply from storage, losses and internal network consumption

(C) In Italy there is no differential treatment for transits treated as normal transport; the value indicated in the table above refers to a transit contract that was granted priority access as part of a multi-year contract.

(D) The volumes of gas available include production, net imports and storage.

Source: AEEG processing on Snam Rete Gas data and operator statements.

In 2016, the total demand of the gas sector, understood as the sum of the volumes of gas sold on the wholesale market (including resales) and retail plus self-consumption, increased by 9%, reaching 266.9 G(m3) (Table 4.3). The wholesale market handled 195.5 G (m3) in an increase compared to 2015 (+10%), the retail market handled 57.4 G(m3), recording an increase of 6.9% compared to 2015, while self-consumption amounted to 14.1 G(m3), also an increase (+7.2%). The operators that in 2016 had a higher than 5% share of this market remained at 4, as in 2015.

More specifically, the industrial groups and the respective shares, shown in brackets, are: Eni (22.8%), Engie (13.6%), Edison (10%) and Enel (9.1%). The first two recorded a lower share than last year, Edison's recorded share remained substantially unchanged, while Enel's share increased by 1.5 percentage points. In fifth place, Royal Dutch Shell with 3.9% (while in 2015 it had 4.5%). The first three groups together account for 46.4% of the total demand, a decrease compared to last year (when it was 50.6%).

In the following section the wholesale market's sales and prices are described in detail.

4.2.1.1 Monitoring the level of prices of the wholesale market

Data on the wholesale gas market comes, as usual, from the initial and provisional elaboration of data collected in the annual survey that the Regulatory Authority carries out on the state of the electricity and gas markets in the previous year. With regard to gas sales, the survey targeted 570 companies accredited with the Registry of Operators, which declared operations in gas sales for the wholesale or retail market in 2016 (even for a limited period of the year). Of these, 513 companies responded, of which 39 declared they were inactive during the year. Of the 474 active companies, 81 sold gas exclusively on the wholesale market, and were classified as pure wholesalers, 281 sold gas only to end customers and were classified as pure retailers, and the remaining 112, who worked on both the wholesale market and the end market, were classified as mixed operators.

Table 4.4 Sales and prices in the wholesale market in 2016

M(m^3); c€/m^3

Operators	Number	Sales	Price
Pure wholesalers	81	95,590	18.46
Mixed operators	112	99,865	19. 49
Total	193	195,455	18.98

Source: Annual Survey on Regulated Sectors.

The wholesale market, which overall handled 199.5 G(m^3), was supplied for 49% by pure wholesalers and the remaining 51% by mixed operators. Unlike recent years, in 2016 the number of companies in the wholesale market did not grow, while the total amount of gas that they traded overall did increase; 193 suppliers, six less than the year before, sold a total of 18 G(m3) more than in 2015. Thanks to these trends (larger market and lower number of suppliers) the average unit volume grew by 13.4%, rising from 893 to 1,013 M(m^3) of the overall market, showing an upward trend for the third consecutive year, after several years of downward trends.

Between the beginning of 2016 and the first quarter of 2017: 7 companies launched a natural gas wholesale business, 9 companies closed while 7 companies changed corporate group.

There were 5 mergers. In particular: Chiara Gaservizi was incorporated into Simecom with effect from 1st January 2016; in September Unogas Energia incorporated GEO. GdF Suez Energia Italia incorporated GdF Suez Energie and at the same time took on the new company name Engie Italia. while Ternienergia incorporated Terni Energy Gas&Power at the same time beginning wholesale activities; in December Acam Clieti was incorporated by Eni. Illumia Trend incorporated Illumia Gas Supply and A2A incorporated A2A Trading. On 1st January 2017 Youtrade incorporated BeNRG and in February Tradenergia was incorporated by Metano Nord.

As in 2015, the wholesale market concentration fell in 2016 as well; in practice, if the slight rise recorded in 2014 is excluded, the wholesale market concentration is in constant decline. In 2016 the share of the top three companies (Eni, Eni Trading & Shipping ed Enel Trade) fell to 30.8% from the 31.4% calculated in 2015. Likewise, the combined share of the top five companies also decreased from 46.1% to 45.6%: the three already mentioned, plus Edison and Engie Global Markets. Obviously, the HHI calculated on the wholesale market only also fell, as compared to 2015, from 560 to 525, remaining however below the 1,500 value considered to be the first indication of concentration.

In 2016, the average price charged on the wholesale market was 18.98 c€/m^3, higher than the 16.75 c€/m3 of the VTP (Source: Platts), but still a sharp fall (-24.7%) compared to the value recorded in 2015 of 25.22 c€/m^3.

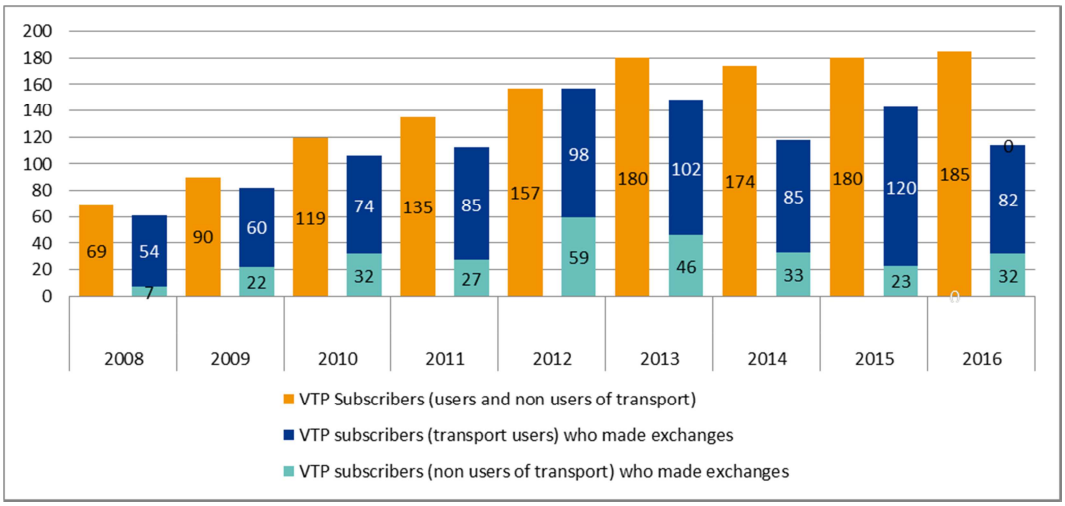
The price charged by mixed operators was 19.49 c€/m3, 1.03 c€ higher than the price charged by pure wholesalers.

Virtual trading point

The main trading platform in Italy's wholesale market is the Virtual Trading Point (VTP), operated by Snam Rete Gas, the leading transport network operator. The sales that can be recorded are both those that occurred through bilateral contracts (called over-the-counter - OTC), and those undertaken as part of the regulated markets operated by the GME. Since September 2015 it has been possible to record contracts managed by third-party Power Exchanges[228] on the Virtual Trading Point. The rules approved by the Regulatory Authority gave, in fact, third-party Power Exchanges access to the Italian national market, through the GME, thereby broadening the offer of futures products with physical delivery of gas to the VTP.

In 2016, 114 bodies performed gas exchanges, sales and acquisitions at the VTP; only 32 of these were pure traders, insofar as they are non-users of the transport system. As in 2015, the positive trend in the demand for natural gas increased the number of VTP subscribers, reaching a peak of 185 in 2016. Nevertheless the number of those who carried out transactions (Figure 4.8) decreased by 29 units compared to 2015. Conversely, the number of pure traders (i.e. subscribers but non-users of the transport system) increased to 32 units, compared to 23 in 2015. This is therefore a recovery that follows three years of ongoing decline.

Figure 4.8 VTP subscribers since 2008



Source: Annual Survey on Regulated Sectors.

[228] A third party Power Exchange is the operator of a regulated foreign market, on which derivative financial instruments are traded that require physical delivery and whose clearing and guaranteeing transactions made on this market are settled through a clearing house (i.e. the third party that assumes the counterparty risk); or it is the clearing house itself which, directly or through its subsidiaries or affiliates, is responsible for all formalities for the physical delivery of the products offered.

Figure 4.9 shows the development of gas transactions that took place at the national gas system entry points and the exchanges registered at the VTP. The graph groups imports at entry points, redeliveries to the VTP and, with the title "VTP-GME", the set of exchanges registered at the VTP arising from trading on the markets operated by the GME, i.e. those that occurred on the Gas Balancing Platform (PB-GAS) up to September 2016, but also those in M-GAS markets and, finally, those managed as clearing houses. Imports at entry points, including all transactions (commercial and customs), are grouped in a single heading, which includes the sales registered at Tarvisio, Passo Gries, Mazara, Gorizia and Gela as well as the gas redeliveries made at the LNG terminals.

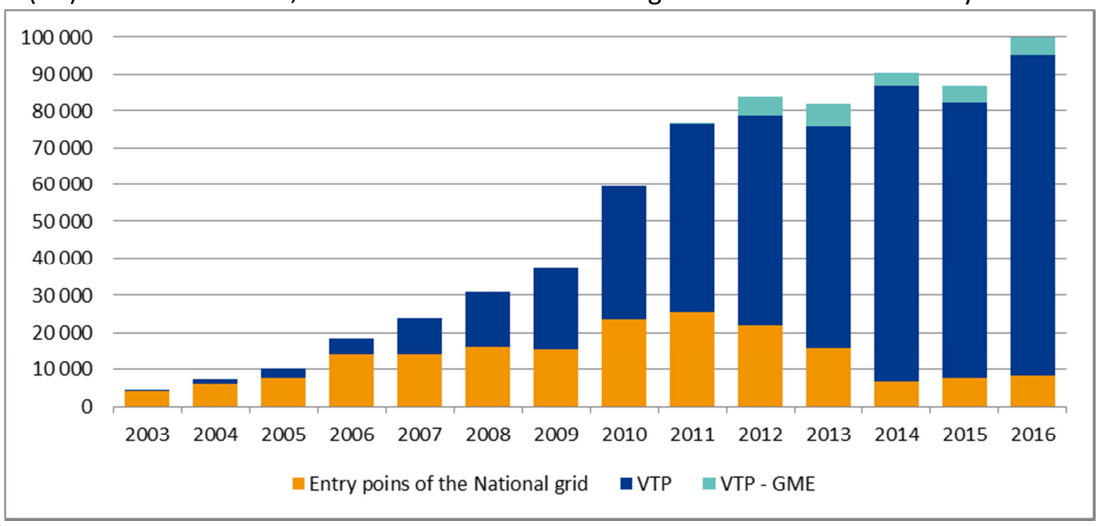
As we see, the VTP has grown significantly over time, both in terms of number of transactions and of volumes traded, whilst the share of trade at the NTN entry points has been declining, eroded, in part, by the decrease in imports and, in part, by the other purchase methods available: VTP and organised markets.

In 2016, due to the increase in imports, the volumes recorded at the NTN entry points showed a significant recovery (+10%), following the robust recovery (+16%) seen in 2015. OTC volumes traded at the VTP, which suffered the first setback after over ten years of uninterrupted growth, also increased once more in 2016. With an increase of 16% they more than recovered from the fall of 7% recorded in 2015.

Once more a considerable growth, equal to 18%, has affected the entry VTP-GME, which follows that of 18% in 2015. Starting from autumn 2015 transactions recorded on the VTP, which acts as a clearing house, have gradually been considerably increasing, especially from the second quarter of 2016. Furthermore, as will be seen in greater detail in the next paragraph, the launch of the new balancing market, which has rendered the G+1 and G-1 balancing platforms inactive from the fourth quarter of 2016, has led to a sharp increase in trade in the last quarter on the various M-GAS platforms.

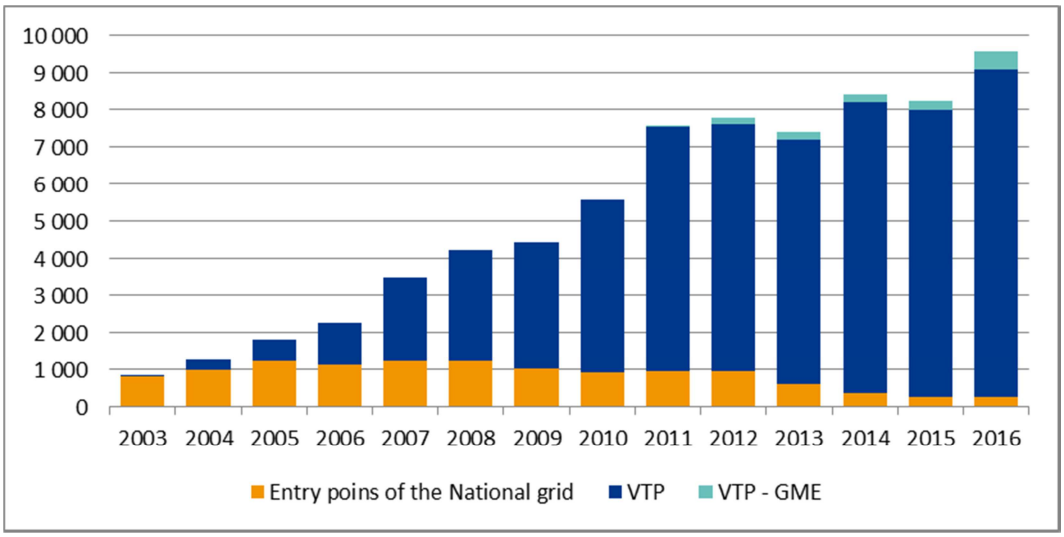
Figure 4.9 Volumes of transactions at the national network entry points

M(m^3) standard 38.1 MJ; the transactions refer to the gas fed into the network by the user-vendor



Source: AEEGSI processing on Snam Rete Gas data.

Figure 4.10 Number of transactions at the national network entry points



Source: AEEGSI processing on Snam Rete Gas data.

Gas exchange

The creation of a Gas Exchange in Italy was implemented in 2007 by Decree Law No. 7 of 31 January 2007, converted with Law No. 40 of 2 April 2007, which established the requirement for owners of natural gas production concessions to yield the rates of gas produced in Italy due to the State and, for importers, to offer a share of imported gas on the regulated capacity market. With Law No. 99 of 23 July 2009, the economic management of the gas market was entrusted exclusively to the GME, which exclusively manages the purchase and sale offers (and all associated services) according to economic merit criteria.

The first nucleus of the Gas Exchange was created in March 2010 with the institution of the trading platform for the exchange of imported gas, known as P-GAS. But the launch of the true natural gas spot market with the GME acting as the central counterparty took place in October 2010, with the foundation of **M-GAS**. On this market, operators authorised to make transactions on the VTP can buy and sell spot quantities of natural gas. At that time it was divided into:

- MGP-GAS (Gas day-ahead market), in which the bargaining occurs with offers to sell and purchase for the next gas-day. The negotiation mode is continuous with closing auction;
- MGP-GAS (Gas day-ahead market), in which the bargaining occurs with offers to sell and purchase for the next gas-day. The negotiation mode is continuous with closing auction;.

PB-GAS, which became operational in late 2011, replaced the "storage" with a "market" balancing system, where the price is no longer established by the Regulatory Authority, but determined by the intersection between stored gas supply and demand. Those who own storage capacity are required to participate in such a mechanism. The mandatory participation, together with Snam Rete Gas as Balance Manager (RdB), enabled much greater gas movement in this market than in the others managed by the GME.

PB-GAS is divided into the following sectors:

- Sector G-1, an actual day-ahead market where, on a voluntary basis, several flexible resources, including Edison's LNG and storage, may be called upon to respond to possible offers by Snam Rete Gas for coverage of provisional system imbalance;
- Sector G+1, a day after market, where operators offer daily, for purchase and sale, the storage resources they have available. Similarly, Snam Rete Gas offers to buy or sell a quantity of gas corresponding to the overall system imbalance, in order to procure the resources offered by the operators that are necessary to keep the system in balance.

By decree of 9th August 2013, the Ministry of Economic Development set the date of 2nd September 2013 for the launch of the futures market managed by the GME (MT-GAS), in implementation of the provisions of art. 32. paragraph 2. of Italian Legislative Decree of 1st June 2011. n. 93. This market, which was added alongside existing spot markets, is undertaken according to methods of continuous trading with many trading books, one for each type of tradable product and referring to different delivery periods, in which gas purchase and sale bids are selected.

From September 2015 operators can also extend the VTP transactions recording made at Power Exchanges managed by entities other than the GME[229]. In particular, the GME was instructed to record the VTP transactions carried out on third-party Power Exchanges. The gas trading platforms that offer products with physical delivery to the VTP are ICE Endex and PEGAS of the EEX group operated by Powernext, which, in March 2015, had already launched VTP futures products without physical delivery.

With the full implementation of the European balancing regulation[230], the activities on PB-GAS were suspended[231] from 1st October 2016, in favour of a balancing system which, over the course of the day, puts all flexible resources available such as storage, import or LNG regasification into competition. In this system, users and the TSO access the same spot product markets to obtain the resources needed to balance the individual position and the aggregate system position, respectively. Furthermore, this reform introduces unbalancing prices that make the individual users liable for balancing their positions, so that the network as a whole is balanced. In this context, the system operator Snam Rete Gas provides users with real-time information on the status of the network so that it is the users who efficiently balance the system, conversely limiting purchases and sales on the market to what is strictly necessary to provide "price markets".

In addition to the existing MGP-GAS and MI-GAS, on 1st October 2016 the following spot product markets were activated, useful for the purposes of balancing:

- The storage gas market (MGS) allows all users to exchange the ownership of gas held in storage via a single auction session at marginal price; Snam Rete Gas can access this market in order to both securely manage in any overall network deviations (pursuant to art. 2.5 of the Annex to resolution 312/2016/R/gas) and for other operations (pursuant to art. 7.1 of resolution 312/2016/R/gas);

[229] Resolutions 12nd June 2015, 282/2015/R/gas, and 10th September 2015, 436/2015/R/gas.
[230] Regulation (EU) 312/2014, approved by the European Commission on 26th March 2014.
[231] See the resolution of 16th June 2016, 312/2016/R/gas.

- The locational product market (MPL) takes place according to auction trading procedures and only at the request of Snam Rete Gas. On this market Snam Rete Gas is supplied by users authorised for the quantities of gas needed to manage the physical requirements located inside the balancing zone or any expected deviations between overall network inputs and withdrawals.

Prices and volumes

Within the contexts of the gas markets managed by the GME, in 2016 overall volumes for 47.5 TWh were traded, in line with what was recorded in 2015 (-3%). However, a profound change in the distribution of these volumes on the various platforms can be observed from the last quarter of the year, coinciding with the implementation of the new gas balancing (see above).

In particular, from table 4.6 it can be seen how the reduction of the volumes on the balancing platforms G+1 and G-1, active until the third quarter of 2016, corresponds to a net increase in trade in the last quarter on the MI-GAS, MGP-GAS platforms and on the newly formed MGS. In particular until September 2016, the G+1 sector of PB-GAS recorded total volumes for 30.6 TWh (approximately +5% compared to the same period of 2015), in the face of greater volumes required for balancing purposes by Snam Rete Gas. Additionally Snam Rete Gas procured 6.2 TWh on the G-1 sector in a greater number of sessions (89 sessions up to 30 September 2016) compared to those recorded in the same period of the previous year (63 up to September 2015). The launch of the new balancing market has also restored trading on the MGP-GAS, which had been inactive since 2013, with exchanges between 53 operators, including Snam Rete Gas, for total volumes of 0.3 TWh, mostly related to the product delivered the next day (75%). The increase in liquidity was also extremely important on the MI-GAS with 7.0 TWh of total volumes exchanged between 57 operators, among which Snam Rete Gas is dominant(86%).

Table 4.5 Annual volumes for each of the gas markets managed by the GME

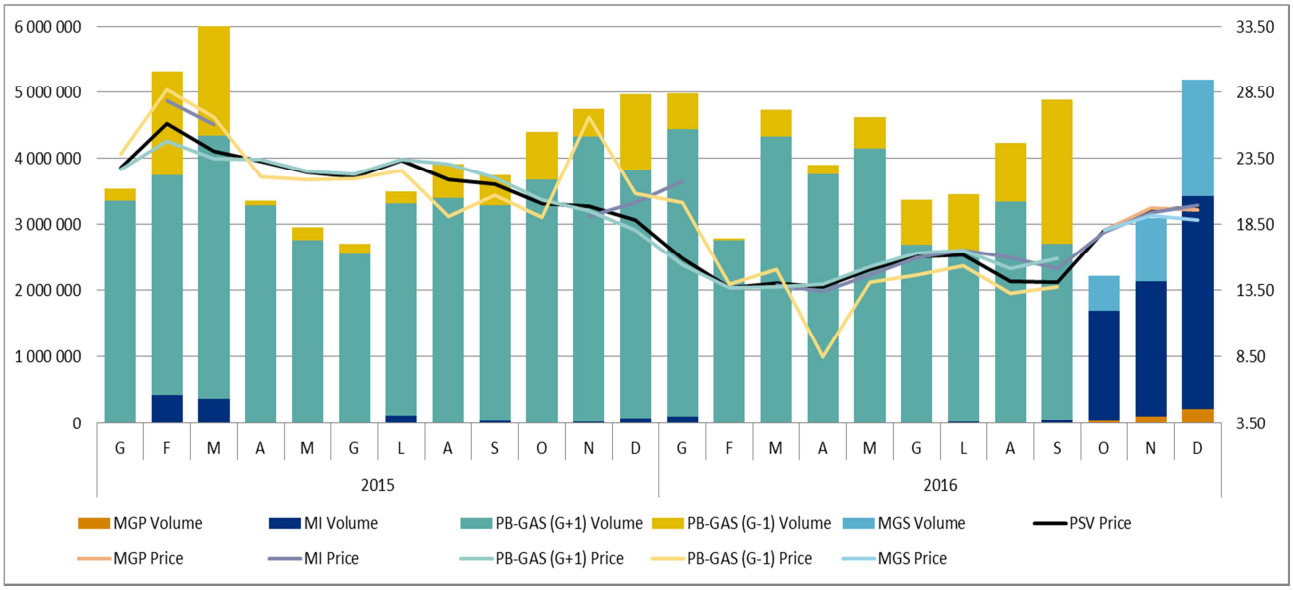
MWh

		2010	2011	2012	2013	2014	2015	2016
P-GAS	Import	365	-	-	-	-	-	-
	Royalties	-	2,869,528	2,707,932	1,800,900	-	-	-
	DL n. 130/10	-	-	-	-	-	-	-
M-GAS	MI-GAS	-	12,616	36,120	3,820	102,130	1,009,437	7,089,717
	MGP-GAS	-	149,378	135,900	13,300	-	-	334,930
	MT-GAS	-	-	-	-	-	-	-
	MGS	-	-	-	-	-	-	3,269,012
	MPL	-	-	-	-	-	-	-
PB-GAS	PB-GAS (G+1)	-	1,711,574	34,925,457	40,832,824	38,584,290	40,863,279	30,568,460
	PB-GAS (G-1)	-	-	-	48,344	2,940,479	7,326,319	6,218,251

Source: GME.

Figure 4.11 Monthly evolution of prices and volumes in the markets that are useful to the balancing gas

€/MWh; MWh



Source: GME.

Operators' interest for long-term standard products tradeable on the MT-GAS hasn't changed, continuing to record a total absence of pairings. The three sectors of the P-GAS platform also confirm a persistent illiquidity, already observed in previous years.

As regards the resulting prices on the various platforms, for the first nine months of 2016, the PB-GAS recorded an average price of 15.1 €/MWh and 14.46 €/MWh for sessions G+1 and G-1, respectively. In the last quarter of the year, the newly formed sector MGS recorded an average price of 18.7 €/MWh, while the average price of 19.1 €/MWh, recorded in the same period by both the MGP-GAS and MI-GAS sectors, is slightly higher. On average, all these prices are all aligned with the monthly average VTP price, which records an average annual value of 15.8 €/MWh (-29% compared to 2015), with the exception of PB-GAS (G-1) which has continued to record significant punctual deviations compared to the more stable prices of the other products.

4.2.1.2 Monitoring the level of transparency, the level and effectiveness of market opening and competition

Measures for the development of competition in the wholesale market

The operation of the natural gas markets, whose main technical rules have a consolidated structure, required only a few adjustments:

- over the course of the year the Authority has expressed its favourable assessment, to the Ministry of Economic Development, in relation to the amendments to the gas market

regulations (M-GAS), prepared by the GME, relating to units of measurement and round-off rules[232] and billing and payment times relating to economic transactions of the gas market[233];

- in September the GME's proposal to amend the M-GAS regulation which - in compliance with the new balancing regime and the regulations concerning neutrality of the RdB - established certain supplements to the rules of operation of the M-GAS fund, was approved[234]. In the event of non-compliance of the RdB this fund carries out the payment of the transactions carried out on the M-GAS to the GME;
- In addition, the updating of the convention, between GME and Snam Rete Gas, governing the procedures for applying the rules for the management of gas markets and the related information flows was approved[235], in compliance with the launch of the new balancing regime;
- The regulation of the PB-GAS market platform, which has been temporarily maintained no longer as a tool for balancing but as an organised market for the trading of gas in storage and for the management of the locational product market, has been amended[236];
- The fees for 2017 for participating in the balancing platform and the contribution envisaged for transactions on the gas market managed by the GME have been approved[237]
- Finally. the Authority has approved[238] the provisions relating to the management of gas markets. necessary for the full implementation of the new balancing regime as well as the I*ntegrated text of provisions concerning the regulatory conditions for the management of physical natural gas markets* (TICORG).

4.2.2 Retail markets

From the provisional results of the Annual survey, on which the contents of these pages are traditionally based, it emerges that 57.4 G(m^3) were sold on the end market, free or protected, in 2016, in addition to 152 M(m^3) supplied through last resort and default services[239]. Therefore, the overall value of final sales is equal to 57.5 G(m^3), with a growth of 3.5 G(m^3) compared to 2015.

In order to have a figure comparable with the previously mentioned final gas consumption figure published by the Ministry of Economic Development it is, however, necessary to consider the volumes related to self-consumption, over 14 G(m^3), which brings the overall consumption value

[232] See the opinion of 14th January 2016, 11/2016/I/gas.
[233] See the opinion of 4th March 2016, 83/2016/I/gas.
[234] Resolution of 15th September 2016, 502/2016/R/gas.
[235] Resolution of 29th September 2016, 539/2016/R/gas.
[236] Resolution of 20th October 2016, 584/2016/R/gas.
[237] With the resolution of 6th December 2016, 737/2016/R/gas.
[238] With the resolution of 16th February 2017, 66/2017/R/gas.
[239] The request for last resort and default supply data was introduced in the annual survey in a very simplified form for the first time this year. Therefore, for this type of supplies the details (consumption sector, connection type, etc.) are not available with which the final sales are usually analysed. Therefore, in the rest of the paragraph all the detail analyses are carried out net of this market component.

resulting from the Annual survey to 71.65 G(m^3), i.e. a value comparable to the 70.9 G(m^3) from the ministerial source. The two sources classify gas volumes handled in the year in different ways

Table 4.6 Final consumption of natural gas in 2014 and in 2015

Withdrawal points in thousands; volumes in M(m^3)

	VOLUMES			WITHDRAWAL POINT		
	2015	2016	VAR. %	2015	2016	VAR. %
Final sales	53,700	57,386	6,9%	21,282	21,073	-1.0%
Last resort and default suppliest	307	152	-50,5%	66	91	38.3%
TOTAL MARKET	54,008	57,538	6,5%	21,348	21,164	-0.9%
Self-consumption	13,165	14,118	7,2%	2,0	2,6	28.2%
FINAL CONSUMPTION	67,172	71,656	6,7%	21,350	21,167	-0.9%

Source: Annual Survey on Regulated Sectors.

The self-consumption entry increased compared to 2015: about 7 % in terms of volume and by 28 % in terms of withdrawal points. This entry has a very strong influence on electricity generation (88.5% of self-consumption belongs, in fact, to this area).
As will be seen more clearly in the remainder of this section, the rise in final consumption, significant in both in the data emerging from the annual survey and in those of the ministry, appears therefore to be closely linked to the growth of production sectors, while in 2016 civilian consumption underwent a slight decline (see infra).

Table 4.7 Sales and prices to the end market in 2015

M(m^3); c€/^{m3}

Operators	Number	Sales	Price
Pure vendors	281	10,862	46.82
Mixed operators	112	46,524	30.73
Totale	393	57,386	33.78

Source: Annual Survey on Regulated Sectors.

Of the 57.4 g(m^3) of gas sold on the end market. 10.8 g(m^3) were sold by pure vendors while the remaining 46.5 G(m^3) were brokered by suppliers also active in the wholesale market. The average price charged to final customers decreased by 5.15 c€, a further fall (-13%) which follows the 8% reduction of 2015. As usual, this price was higher than what was offered to end users by wholesalers, which stood at 30.73 c€/m3. The reason for the positive difference, equal to 3.05 c€, lies mainly in the type of customer and their characteristics. In fact, companies operating mainly in the retail market deal mostly with domestic customers who are connected to distribution networks and, although numerous, are characterised by low consumption. Conversely, the customers served by wholesalers are primarily great consumers, especially industrial types, who are surely able to obtain more favourable prices thanks to high consumption levels. Additionally, industrial customers are often directly connected to the transport network and therefore do not pay distribution costs.

The price differential offered to other retailers was, however, much more limited. Faced with a value of 18.98 c€/m^3 charged by wholesalers, suppliers(i.e. companies that operate primarily on the end market) requested on average 19.49 c€/m^3, for the gas sold to other suppliers, i.e. about

half a cent more. The price charged to other suppliers also decreased compared to 2015 (- 24.1%). In comparison with 2014 values, we can observe that both differentials fell significantly: last year the differential on the price set by the wholesalers to retail customers was almost 12 c€/m^3, while the differential on the price charged to other intermediaries was almost 6 c€.

As usual, the significant growth in sales on the end market (as we have just seen, equal to 6.9%) was accompanied by an increase (+15) of the number of active suppliers in this segment of the supply chain: from 378 operators in 2015 to 393 in 2016[240]. Therefore, the rising trend, also observed in the electricity market, in the number of suppliers has remained. The average unit sales volume increased slightly, from 142 M(m3) in 2015 to 146 M(m^3) in 2016, although this value is still far from the pre-crisis values, i.e. the 230 M(m^3) sold on average in 2009, also because then the number of suppliers was significantly lower.
The increase in the number of suppliers is also explained by the many movements that occur each year between companies. In 2016: 38 companies started selling to end users, mainly companies that were already selling either in the wholesale market or in the sale of electricity; 10 companies in total went out of business; 8 companies acquired or sold their business; 9 companies changed corporate group and there were 9 mergers.

9.9% (meaning 39) of the 393 active suppliers that responded to the Annual Survey serve customers throughout the all 19 Italian regions that use methane[241]; 63.4% of the companies (249) sold electricity in 6 to 18 regions; the remaining 105 companies (26.7%) dealt with 1 to 5 regions. The number of companies operating throughout the country has been growing steadily (they were 7% in 2014 and 8.4% in 2015).

The shareholding structure of the share capital of gas suppliers displayed little foreign presence: only 11 companies (out of the 386 that provided this information) had a non-Italian majority shareholder. Direct foreign participants were mostly Swiss and German companies, but there were also companies from Luxembourg, Austria and Spain.

To properly calculate market shares and the concentration level of the final sales market we need to analyse not the work of individual companies, but that of corporate groups (Table 4.8).

In 2016, the concentration level in the final sales market, steadily declining for years, increased slightly compared to 2015. The first three groups controlled 44.8%, while the previous year the figure was 44.9%. Considering the first five groups, the portion of market served was 55.2% (against 53% in 2015).

The HHI index calculated on the sales market amounted to 881, therefore stable compared to the 2015 value which was 882. The level has therefore remained well below the 1,000 threshold, the value below which the concentration is usually considered too weak.

Furthermore, Eni's market weight fell by almost two and a half percentage point compared to 2015 and its distance from Edison, which went back to being the second operator (in 2015 it was in third place, behind Enel), shortened considerably, having declined to 6.8 percentage points compared to the 13.1 in 2015. Conversely, the distance between the second and third group, Enel,

[240] As seen in the section dedicated to the wholesale market, this year 513 out of 570 companies responded to the annual electricity and gas sector survey that, in the Regulatory Authority's Register of Operators, stated that they sold gas during 2016 (even for a limited period of the year). Apart from the 39 companies that said they remained inactive, out of the remaining 474 there were 81 who sold gas exclusively in the wholesale market. The retail market operators were therefore 393.
[241] No gas service in Sardinia.

increased because of the particularly high increase in the Edison group's sales (47%) which was much higher than the growth seen by Enel (14%).

Table 4.8 Top twenty groups by sales to the final market in 2016

Volumes in M(m^3)

GROUP	VOLUME	SHARE	POSITION IN 2015
Eni	12,266	21.4%	1°
Edison	8,347	14.5%	3°
Enel	6,618	11.5%	2°
Iren	2,442	4.3%	4°
Hera	2,004	3.5%	5°
Engie	1,884	3.3%	7°
Energeticky a Prumyslovy Holding A.S.	1,496	2.6%	-
A2A	1,377	2.4%	9°
Royal Dutch Shell Plc	1,208	2.1%	8°
E.On	1,008	1.8%	6°
Sorgenia	833	1.5%	10°
Ascopiave	800	1.4%	11°
Estra	792	1.4%	12°
Axpo Group	640	1.1%	16°
Unogas	628	1.1%	13°
Eg Holding	605	1.1%	14°
Gas Natural Sdg Sa	480	0.8%	17°
Repower Ag	475	0.8%	20°
Dolomiti Energia	470	0.8%	15°
Egea	371	0.6%	21°
Others	12,641	22.0%	-
TOTAL	57,386	100.0%	-

Source: Annual Survey on Regulated Sectors.

As concerns the shifting rankings of the groups, in addition to Enel and Edison exchanging positions, we should note the entry of the Czech group Energeticky Prumyslovy a Holding (which includes the company EP Commodities), which recently entered the Italian market, straight into 7th place. The groups Engie, A2A, Axpo Group, Repower and Egea also moved up the rankings.

Table 4.9 provides a summary of the data regarding the final sales market of natural gas by market type and consumer sector over the past two years, gathered by starting from the data collected through the annual survey, which, it should be remembered, are provisional for 2016.

Net of last resort and default supplies, 67 G(m^3) were sold last year - of which 13.2 for self-consumption and 53.8 for sales - to 21.3 million customers (redelivery points)

Overall, gas quantities increased compared to 2015 in every sector, with the exception of domestic. Self-consumption, which rests mostly with the thermoelectric power generation

industry, experienced a significant increase (7.2%), the open market showed a 10.4% increase, while there was some loss (7.8%) in sales at standard market conditions. However, the values of this market shown in Table 4.6 for the year 2015 do not include the quantities provided through default and last resort services, as these are not divisible into the various sectors. These amounted to € 302 M(m^3) in 2015 and 152 M(m^3) in 2016. If one includes the default and last resort services, the gas sold at standard market conditions becomes equal to 9.7 G(m3), and the loss rises to 9.1%.

Table 4.9 Final market by consumer sector

Customers in thousands and volumes in M(m^3)

CONSUMER SECTOR	2015				2016			
	STANDARD CONDITIONS	OPEN MARKET	SELF-CONSUMPTION	TOTAL	STANDARD CONDITIONS	OPEN MARKET	SELF-CONSUMPTION	TOTAL
VOLUMES								
Domestic	9,741	5,056	66	14,863	8,825	5,687	0	14,512
Central heating	598	1,966	8	2,571	726	1,741	11	2,478
Business and services	17	7,097	73	7,187	-	7,286	76	7,362
Industry	5	17,880	1,361	19,245	-	18,743	1,540	20,283
Power generation	0	10,137	11,657	21,794	-	13,104	12,490	25,595
Public services	4	1,200	0	1,204	-	1,274	0	1,274
TOTAL VOLUMES	10,364	43,336	13,165	66,865	9,551	47,835	14,118	71,504
REDELIVERY POINTS								
Domestic	13,325	6,446	0	19,770	12,169	7,406	0	19,575
Central heating	60	141	1	202	91	108	1	200
Business and services	7	1,052	1	1,060	-	1,059	2	1,060
Industry	3	181	0	184	-	179	0	179
Power generation	0	1	0	1	-	1	0	1
Public services	0	67	0	67	-	60	0	60
TOTAL POINTS	13,394	7,888	2	21,284	12,261	8,812	3	21,076

Source: Annual Survey on Regulated Sectors.

Customers who bought gas for self-consumption grew strongly, as well as those served in the open market; conversely customers of the market at standard conditions of service were reduced overall by 8.5% (but here too, if we take into account the default and last resort services the decrease is reduced to 8.2%).

2016 was slightly warmer than 2015, for this reason there was no boost to civilian consumption which, in fact, showed a 2.4% decline in the domestic sector and consumption in condos with domestic use which fell by 3.6%; the business and services sector shows a slight increase of 2.4% and public services increased by 5.8%. High growth was also apparent in the thermal power generation consumption (17.4%), however, also favoured by low gas prices and, in the last part of the year, driven by higher gas requirements to replace the lower imports of electricity from France. The slight recovery of the manufacturing sector has led to a rise in industrial consumption of 5.4%.

These change rates have improved, with the exception of condos and the industrial sector, if one considers only sales on the **open market**, where the volume of gas sold to families was 12.5% higher than in 2015, showed a variation of 2.7% for the tertiary sector, grew by 29.3% for the thermoelectric power generation sector, and rose by 6.1% for public service activities. At the base of the volume growth there is also a significant increase in customers, which increased overall by almost one million redelivery points (+ 11.7%), which follows in the wake of the remarkable increases also recorded in previous years (respectively +1.4 million in 2013, +1.3 million in 2014 and +1million in 2015). In relation to condos with domestic use, in 2016 the open market recorded a significant loss in terms of both customers (-23.4%) and volumes (-11.4%), which instead rose considerable in the market at standard conditions (+53.4% in customers and +21.4% in volumes).

The picture changes completely if, instead, we look at the data of standard conditions market, showing losses in terms of both volumes and customers, with the exception of condos that we have just seen. This is because displacements are still ongoing in this market due to the gradual expulsion from the standard conditions - by operation of law - of all non-domestic categories of customers. As you will recall, according to Decree Law no. 69 of 21 June 2013, from the second half of 2013 the requirement to offer the economic conditions laid down by the Regulatory Authority covers only domestic end customers and no longer other users with different uses and low consumption or dealing in public service activities[242]. Therefore, from the second half of 2013 non-domestic customers have been gradually removed from the scope of the standard offer and the data collected shows this.

In this respect it should be noted that, again in 2016, several suppliers among those who responded to the annual survey entered as standard market conditions the consumption data of customers who, although no longer being entitled to the economic conditions laid down by the Regulatory Authority, demanded similar terms and conditions otherwise they would drop the supplier. But the volumes purchased by these customers should be more correctly counted in the open market, since it is by exercising market power that customers were able to obtain such conditions, and not by appealing to an established standard outside of the contractual relationship between customer and supplier.

Evaluating the market as a whole, we see that in 2016: the domestic sector bought 14.5 G(m^3), i.e. 20% of all gas consumed (sold or self-consumed); condos with domestic use bought 3%, or 2. G(m^3); business used 10%, corresponding to 7.4 G(m^3); industry consumed 28%, i.e. 20.3 G(m^3); power generation absorbed 36%, equivalent to 25.6 G(m^3); public service activities, finally, consumed 2%, equivalent to 1.3 G(m^3).

The portion of volumes purchased on average on the open market was 67%, at standard market conditions 13%, and self-consumed 20%. If we consider sales in the strict sense and therefore exclude self-consumption, 83.4% of the gas was purchased on the open market and the remaining 16.6% at standard market conditions. In terms of customers, however, 58.2% went with standard market conditions, while only 41.8% bought in the open market.

The proportion of volumes purchased on the open market is equal to 39.2% in **domestic** and 70.6% for **condos** (all the percentages are calculated on the total sales in a strict sense).

[242] Before this law, the following customer owned redelivery points were entitled to protection service: households, condos with household use with lower than 200,000, non-households with lower than 50,000 m^3/year consumption, public service activities.

The breakdown of final market sales (net of self-consumption) by consumer sector and customer size confirms the analysis that has often been offered in the past: with the increase of customer size, the open market gradually acquires more weight. In fact, 70% of the energy sold on the open market is bought by customers with consumption from 200,000 m^3 upwards.

Table 4.10 Final market by customer type and size in 2016

M(m^3)

CONSUMER SECTOR	CUSTOMERS BY ANNUAL CONSUMPTION BAND (m^3)						TOTAL
	< 5,000	5,000-50,000	50,000-200,000	200,000-2,000,000	2,000,000-20,000,000	> 20,000,000	
STANDARD MARKET CONDITIONS	8,737	736	78	-	-	-	9,551
Domestic	8,649	175	1	-	-	-	8,825
Central heating	88	561	77	-	-	-	726
Business and services	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-
Power generation	-	-	-	-	-	-	-
Public services	-	-	-	-	-	-	-
OPEN MARKET	7,002	4,848	2,523	5,860	9,283	18,318	47,835
Domestic	5,526	146	11	4	-	-	5,687
Central heating	66	1,221	366	77	11	-	1,741
Business and services	1,143	2,424	1,129	1,793	657	141	7,286
Industry	211	711	777	3,537	7,676	5,831	18,743
Power generation	0	4	11	109	693	12,288	13,104
Public services	57	343	229	339	247	59	1,274
TOTALE	15,739	5,584	2,601	5,860	9,283	18,318	57,386

Source: Annual Survey on Regulated Sectors.

As previously mentioned in Chapter 3 (see paragraph 3.2), ten years from the complete opening of the energy markets, the experience gained by the companies that operate in the open market, or at least those that were part of it from the outset, can be regarded as a solid. Therefore, for the first time the Annual Survey on Regulated Sectors has posed some questions to electricity and natural gas suppliers aimed at assessing the offer quantities, types and methods that these provide to customers who have chosen to be supplied on the open market.

Here as well, as previously mentioned in Chapter 3, care must be taken in reading the results of the new questions, both because these have generated many requests for clarification and need for interpretation by the respondents, and because it is an initial reconnaissance intended to be subsequently refined, also on the basis of the answers obtained. Furthermore, as the suppliers have expressed considerable difficulty in responding to the new questions relating to non-domestic customers, whose supply traditionally has much more varied and complex requirements

compared to domestic supply, for this year the presentation of the results collected focuses almost exclusively on the latter[243] which in any case offers some initial interesting ideas.

The average number of commercial offers that each gas supplier is able to offer to their potential customers is equal to 8 for domestic customers, 7 for condos with domestic use and 26 for non-domestic customers. Obviously, the latter benefits from a greater choice as it is generally a more important customer in terms of volumes consumed and certainly has more varied requirements compared to those of a domestic customer. 29% of suppliers offer domestic customers only one contractual arrangement, 30% offer up to three and the remaining 41% of suppliers offer their customers a range that includes four offers and over.

Of the 8 offers made available to the domestic customer on average, 4 can only be purchased online. i.e. only through the internet which is now a very important sales channel through which the company can clarify its offer with all the necessary details , thereby saving on management costs. For now, online offers do not seem to have been of great interest for families, as it was found that only 15.3% of customers have signed a contract offered through this channel.

As concerns the preferred type of price, it was found that the 68.8% of domestic customers on the open market had signed a fixed price contract (i.e. with the price that does not change for at least one year from the time of signing), while 31.2% chose a variable price contract, i.e. with a price that changes according to the times and methods established by the contract itself. There are various kinds of indexation methods for variable price contracts. 46.4% of customers who signed a variable price contract signed a contract that provides a fixed discount on the energy component (CMEM+JRC) established by the Authority for the standard offer service; 18.2% of customers chose a contract that involves Brent indexation and 30.3 % of customers chose a contract that involves forms of indexation other than those just mentioned. These alternative forms are very diverse: the most frequent include coupling with the PFOR (which is a part of the CMEM component), with the VTP day-ahead and with the prices of the Dutch *Title Transfer Facility* (TTF) market.

Finally, as concerns the presence of additional services in the contracts signed, among domestic customers who chose a fixed price contract a clear preference emerges (65%) for contracts which involve participation in a points programme and a moderate popularity (21%) of contracts that provide an accessory service. Conversely, among customers who have signed a variable price contract there is greater interest in obtaining a rebate/discount for one or more free periods or of a fixed sum in cash (32%) and for contracts that entail other forms of benefits (45%) such as the ability to pay the bill in instalments, the guarantee of obtaining a lower price than that charged by the previous supplier, the possibility of providing self-readings or to have monthly readings , personalised telephone services, or insurance for small household accidents.

4.2.2.1 Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

On retail market sales prices, the Authority has two surveys available:

[243] The only result presented for non-household customers concerns the number of offers available because the appropriate question in the questionnaire for suppliers achieved a good response rate.

- one on the average supply conditions of natural gas, carried out in accordance with Resolution ARG/gas 64/09 of 28 May 2009, which collects, on a quarterly basis, the monthly data on the prices charged by suppliers to domestic and non-domestic customers, broken down into consumption classes and sectors;
- the other carried out as part of the Annual Survey on regulated sectors, which collects data relevant to the previous year according to various retail categories (market, consumption classes and sectors and connection types).

As mentioned in Chapter 3 (see section 3.2.2.1), the Regulatory Authority also defined the system for monitoring the electricity and natural gas retail markets (TIMR), which requires operators of the final electricity and natural gas sales (with more than 50,000 withdrawal points served) to submit their data, on the average monthly electricity prices charged on the final market, to the Regulatory Authority on a quarterly basis, along with numerous other indicators (the results of the TIMR are presented in next paragraph). As a matter of fact, starting January 2012, the average prices collected by the Regulatory Authority from the suppliers required to do so by the TIMR, pursuant to Resolution ARG/gas 64/09, have been converging in the retail monitoring system. Under an institutional agreement, however, all the data collected pursuant to resolution ARG/gas 64/09 are provided every six months to the Ministry of Economic Development, which sends it to Eurostat to fulfil obligations on the statistics of the final electricity and natural gas prices. As the latter were amended in 2016[244], over the course of 2017 Resolution ARG/gas 64/09 should be amended to meet the new European requirements.

The data from the Annual Survey are instead used for the statistical analyses carried out by the Regulatory Authority, especially those presented in the annual reports to national and European authorities.

The provisional analysis of the data from the survey conducted by the Regulatory Authority on 2016 shows that last year the average gas price (weighted by the quantities sold) charged by companies selling on the final market, net of taxes, totalled 33.8 c€/m3 (Table 4.11). This price in 2015 was equal to 38.9 c€/m3. Overall, therefore, the average price of gas in Italy showed a decrease of 13%. The reduction significantly involved (around 4 c€/m^3) all customer sizes. The classes with the greatest decrease, in both absolute (-4.7c€/m^3) and relative terms (about 18%), were those with a consumption of over 20 million cubic metres. This contributed to widening the price gap between the smaller and larger customers, which during the five-year period under consideration increased from 23.5 to 30 c€/m^3. With increase in consumption, prices naturally tend to drop, due to the reduction of fixed costs per unit. In particular, the incidence of distribution fees is much higher for smaller consumption whereas for larger customers, who are connected directly to the transport network, this component does not exist. Moreover, small power consumption is characterised by a higher correlation with the seasonal and weather conditions, which leads to higher modulation charges. In addition, supplies to large customers are characterised by a more flexible price system, in which the indexing formulas respond more

[244] On 17th November 2016 the European Parliament and the Council adopted the Regulation (EU) 2016/1952 on European statistics on natural gas and electricity prices and repealing Directive 2008/92/EC, which entered into force on 7 December 2016.

quickly and intensely to the structural changes in international markets. Finally, it can be said that the ability to get more affordable supply conditions is directly proportional to the size of the customer, based on greater knowledge of the market and greater attention paid to the contractual terms.

Overall, gas quantities increased compared to 2015 in every sector, with the exception of domestic. Self-consumption, which rests mostly with the thermoelectric power generation industry, experienced a significant increase (7.2%), the open market showed a 10.4% increase, while there was some loss (7.8%) in sales at standard market conditions. However, the values of this market shown in the table for the year 2015 do not include the quantities provided through default and last resort services, as these are not divisible into the various sectors. These amounted to € 307 M(m^3) in 2015 and 152 M(m^3) in 2016. If one includes the default and last resort services, the gas sold at standard market conditions becomes equal to 9.7 G(m3), and the loss rises to 9.1%.

Table 4.11 Average sales prices net of taxes on the final market

c€/m^3; annual consumption classes expressed in m^3

ANNUAL CONSUMPTION BAND	2012	2013	2014	2015	2016
Under 5,000	60.3	61.2	58.8	55.7	51.8
5,000 to 50,000	50.0	51.3	46.9	46.0	42.3
50,000 to 200,000	48.3	44.4	41.4	41.0	37.2
200,000 to 2,000,000	41.1	36.6	35.0	32.5	28.4
2,000,000 to 20,000,000	36.9	33.8	34.0	28.0	24.2
Over 20,000,000	36.8	32.7	32.2	26.5	21.8
TOTAL	45.5	44.0	42.3	38.9	33.8

Source: Annual Survey on Regulated Sectors.

Table 4.12 shows a cross-section of average prices by consumption sector. The overall average of each sector depends on the allocation of sales volumes among consumption classes. As stated above, domestic customers, characterised by the prevalence of lower unit consumption, had a higher total average price, whereas industry and power generation had lower prices for the opposite reason.

Table 4.12 Retail sales prices on the final market by consumption sector and customer size in 2016

c€/m^3; annual consumption classes expressed in m^3

CONSUMER SECTOR	CUSTOMERS BY ANNUAL CONSUMPTION BAND (m^3)						TOTAL
	< 5,000	5,000-50,000	50,000-200,000	200,000-2,000,000	2,000,000-20,000,000	> 20,000,000	
Domestic	52.0	42.3	38.6	33.7	-	-	51.8
Central heating	46.3	43.4	41.7	37.5	32.2	-	43.0
Business and services	48.6	39.1	35.1	28.2	25.7	19.2	32.4
Industry	50.5	41.9	36.9	28.7	25.7	25.5	37.5
Power generation	51.3	42.3	35.8	28.0	23.9	20.9	25.2
Public services	59.1	47.3	34.0	28.5	26.0	22.1	22.4
TOTAL	51.8	42.3	37.2	28.4	24.2	21.8	33.8

Source: Annual Survey on Regulated sectors.

Monitoring the transparency level including compliance with transparency requirements and the degree and effectiveness of market openness and the competition.

The monitoring system of retail markets (already described in Chapter 3 and in the previous section) works so the Regulatory Authority can regularly and systematically observe retail operating conditions, including the degree of market openness, competitiveness and transparency, as well as the end customers' level of participation and degree of satisfaction.

In section 3.2.2.1 it was mentioned that the Authority, on 21 March 2017, published the update of the *Retail monitoring, Annual Report 2014 and 2015*, which updates the results of the monitoring activities carried out for the years 2012 and 2013. For the natural gas sector, the update primarily shows an increase in the number of active operators on the open market. The competitive pressure put on medium-large suppliers by small and medium suppliers, evidenced by the increase in their market shares, is in any case differentiated by type of end customer. Unlike the electric sector, for the two year period 2014-2015 the competition between suppliers took place primarily on a regional or sub-regional scale, not national. Despite the growth of certain corporate groups (confirmed by the increase in the number of operators that are among the top four in at least one region), for the entire four year period analysed only two operators are among the top four suppliers in at least ten regions. Furthermore, on average the regional concentration increased in the period 2012-2015, although with particularly different trends among the different regions. With regard to non-domestic customers (i.e. condos with domestic use, other uses and public service), it can be observed that large operators have increased their market shares at the expense of medium-large suppliers. The increasing competitive pressure exerted by subjects outside of the retail monitoring sample should also be noted.

Moreover, the upward trend that began in 2012 of transitions between the different methods of supply for non-domestic customers continued. In 2015 these values stood at 13.3% for other uses under 50,000 m^3/year, 26.3% for other uses with consumption over 50,000 m^3/year and 20.4% for public services. These results confirm how these market sectors are the most dynamic in the gas sector, even two years from the entry into force of Italian Law n.98 of 9th August 2013, which re-delimited the customers entitled to the standard offer service, in fact leading to the entry of these types into the open market.

For domestic customers, despite the growth of the top national operator, which also provoked the increase of concentration indices, between 2012 and 2015 the competitive dynamics has allowed medium sized operators to erode the market shares of both larger and smaller operators. Still with reference to domestic customers, in 2015 transitions between methods of supply were recorded for 12.8% of domestic customers. The value of the total of the abovementioned transitions remains almost constant since 2013, when a substantial increase of almost five percentage points compared to the previous year was recorded. In the two years considered, a reduction in re-negotiations concerning changes in supplier was seen (re-negotiations stood at 5.1% in 2015 for domestic customers, a slight increase compared to the previous year). Finally, as in the electricity sector, historic suppliers have a certain advantage in increasing their market shares on the open market. In fact, in the 2012-2015 period their territorial presence was strengthened on average, although in an inconsistent way regionally (the share of historic suppliers increased in some regions and decreased in others).

It should also be noted how historic suppliers, and in particular the largest national operator, still serve the majority of their domestic customers in the standard offer service. For both domestic customers and condos with domestic use, the most prevalent supply method is still the standard offer service. In 2015, 68% of redelivery points owned by domestic customers were supplied under

the standard offer regime, although the gradual transition of these customers to the open market continues. As concerns the supply type with reference to condos with domestic use, in 2015 the results relating to the division by market type seem to reflect the conduct of only one operator and, therefore, investigations are currently ongoing in this regard.

In the natural gas sector it also emerged that the domestic customer, compared to the other types of customer, had not yet reached an adequate ability to orient themselves in the open market.

The Report also analyses the indicators related to the processes and organisational mechanisms in support of the operation of the sales market. In particular the **complaints** index has been continuously decreasing since 2012 for the open market (standing at 1.4% in 2015), against an almost constant result for the standard offer service (equal to approximately 0.7% in the period considered). For customers connected to the low pressure network (mostly domestic customers), in 2015 the number stood at around 153 thousand, of which around half refers to the open market.

Between 2014 and 2015 the phenomenon of **incomplete switching** reduced both nationally and regionally (with the exception of Tuscany), which, however, is still significant, standing at 8.5% in 2015; this results in the need to gain further insight into the reasons behind this phenomenon. Furthermore, the **unavailability of switching measurements within the established time period** underwent a fluctuating trend over the four year period. Finally, in the natural gas sector as well the indicators of the quality of telephone services and distribution services subject to monitoring continue to generally stand at higher qualitative levels compared to the minimum standards prescribed by the Authority, although with fluctuating results over the years for distribution services.

It is noted that suspensions for **arrears** are requested more frequently for non-domestic customers rather than for domestic customers. This difference is less pronounced compared to the electricity sector, but still growing. In addition, requests for suspension are lower on average than in the electrical sector. In this respect it should be noted that, in the gas sector, unlike the electricity sector, distributors are only required to satisfy requests for suspension up to a predetermined maximum number (however, the Authority has already intervened on several occasions with changes to the regulation in order to increase these limits), and that remotely managed meters that enable remote suspension of the supply are not in operation to an extent comparable with the electricity sector.

Trova Offerte

As concerns the measures adopted to promote effective competition, it is worth mentioning **Trova Offerte (Offer Finder)**, a search system for natural gas suppliers' commercial offers **for domestic customers.**

In March 2017 the system displayed over 35 offers, mainly at fixed price, with the most affordable offer resulting in potential savings, calculated based on annual expenditure before tax and for homes in Rome, of around 170 €/year (-15%) with respect to the supply under regulated conditions, and of around 270 €/year (-21%) with respect to least affordable offer. In comparison to the situation observed in March 2016, gross expenditure associated with the most affordable offer is currently around 95 €/year less. Always considering the most affordable offer, in March 2017 the potential saving is greater, if compared with that found a year ago, both with respect to

the supply under regulated (-106 €/year in March 2016) and with respect to the least affordable offer (-190 €/year in March 2016).

Searches for joint offers displayed up to six/seven results; the most affordable annual expenditure associated with the joint offer displayed for the city of Rome is higher (+28 €/year) than that obtained by summing the expenditure associated with the most affordable offer for the single supply of electricity and natural gas available in the same location (the difference was less significant in March 2016: +12 €/year), around 210 €/year (–12%) lower compared to the sum of the expenditure associated with standard offer prices (in March the difference was 135 €/year) and around 350 €/year lower compared to the least affordable joint offer. For 2017 as well, it is confirmed that the most affordable offers, based on the search results, are those that involve a fixed gas price for at least one year, stipulation of the contract via the internet, electronic clearance of payments and sending bills in electronic format.

Switching

Based on data provided by natural gas transport and distribution operators, the percentage of switching, i.e. the number of customers who switched suppliers during the calendar year 2016[245], was 6.6% total, or 50.8% when measured according to the consumption of customers who switched (Table 4.13). As always, both percentages were higher than those observed in the previous year, although the 2016 data for non-domestic customers, like those of the previous year, probably still suffered from the steps toward the open market driven by the regulatory changes referred to above.

Table 4.13 Switching rates of final customers

CUSTOMERS BY SECTOR AND BY ANNUAL CONSUMPTION BAND	2015 CUSTOMERS	2015 VOLUMES	2016 CUSTOMERS	2016 VOLUMES
Domestic	6.2%	7.2%	6.1%	7.0%
Central heating	7.4%	10.0%	9.1%	12.8%
Public services	15.8%	23.2%	19.0%	26.9%
Other uses	10.5%	55.0%	12.2%	58.2%
Of which:				
< 5,000 m³	8.9%	11.5%	10.1%	13.1%
5,000-50,000 m³	17.1%	18.3%	19.8%	21.0%
50,000-200,000 m³	23.2%	23.7%	25.5%	25.9%
200,000-2,000,000 m³	29.3%	32.2%	31.2%	34.2%
2,000,000-20,000,000 m³	60.0%	66.0%	58.6%	63.6%
> 20,000,000 m³	67.4%	58.3%	72.0%	63.6%
TOTAL	6.5%	45.8%	6.5%	48.7%

Source: Annual Survey on Regulated Sectors.

[245] For convenience, the text refers generically to customers. However, it should be noted that this is the number of re-delivery points in the case of transport users and the number of metering units in the case of distribution users.

In 2016, supplier switching by domestic consumers, not required by law, was still not particularly high but it has been stable or increasing for several years (Fig. 3.16). Last year, the share of customers who switched at least once was, in fact, 6.1%, corresponding to a 7.2% portion of the volumes. The fraction of condos with domestic use who switched to another supplier was higher at 11.1%, with volumes corresponding to 13.2% of that consumption sector. 19.3% (equivalent to 28.8% in volume terms) of the public service agencies chose to switch to a new supplier; it is a fairly high rate, but this is one of the categories that by law must leave the protected market. Finally, the "other uses" that switched their supplier were all together 12.7% of the total in terms of customers and 60.5% in terms of volume.

Table 4.14 Switching rates by region and customer type in 2016

Percentages

REGION	DOMESTIC		CENTRAL HEATING		OTHER USES		PUBLIC SERVICES		TOTAL	
	CUSTOMER	VOLUME	CUSTOMER	VOLUME	CUSTOMER	VOLUME	CUSTOMER	VOLUME	CUSTOMER	VOLUME
Piemonte	5,7	6,3	11,9	16,5	13,9	71,2	22,4	32,1	6,4	59,8
Valle d'Aosta	3,0	3,4	8,2	11,7	14,5	45,1	46,5	75,4	4,8	39,8
Lombardia	5,6	6,8	10,6	14,7	12,6	60,9	20,3	31,2	6,2	50,2
Trentino Alto Adige	2,8	3,4	3,7	5,2	7,8	53,1	11,5	7,4	3,4	44,9
Veneto	6,7	7,7	9,7	12,0	15,7	65,9	18,7	35,0	7,5	54,0
Friuli Venezia Giulia	6,4	8,2	11,1	15,5	14,9	73,5	9,4	12,6	7,1	62,7
Liguria	5,2	6,6	10,8	14,2	12,0	55,1	28,7	50,7	5,6	43,7
Emilia Romagna	5,2	5,7	4,7	5,9	11,4	52,1	20,1	30,3	5,7	44,7
Toscana	7,0	7,7	6,2	6,9	13,6	63,2	20,8	29,3	7,4	53,7
Umbria	6,3	14,7	7,9	9,2	15,1	56,3	20,9	30,6	7,0	48,8
Marche	6,8	7,6	10,6	13,3	11,8	57,5	16,3	25,2	7,2	44,5
Lazio	6,5	7,6	17,6	14,3	12,2	64,2	23,1	19,2	6,9	49,6
Abruzzo	8,0	9,8	7,5	9,9	7,9	44,8	19,1	38,6	8,1	37,0
Molise	20,2	22,9	31,4	31,6	26,0	17,5	26,0	29,0	20,6	19,2
Campania	7,3	8,5	31,0	14,7	12,1	57,0	16,8	22,8	7,6	48,3
Puglia	5,8	7,0	5,0	5,7	10,9	65,4	11,7	33,8	5,9	56,9
Basilicata	6,7	7,8	26,2	20,8	15,5	51,9	23,9	41,4	7,3	41,1
Calabria	5,3	6,3	5,8	5,9	11,3	96,4	12,3	27,8	5,5	89,9
Sicilia	4,8	5,6	15,1	7,0	9,8	24,9	8,6	17,2	5,0	22,9
ITALY	6,1	7,2	11,1	13,2	12,7	60,5	19,3	28,8	6,6	50,8
NORTH	5,7	6,7	9,6	13,4	13,1	61,7	20,4	30,5	6,3	51,5
CENTRE	7,2	8,7	13,5	12,5	12,3	59,6	21,2	24,6	7,5	48,6
SOUTH AND ISLANDS	6,0	7,1	20,5	11,4	11,4	57,2	13,7	27,0	6,2	50,6

Source: Annual Survey on Regulated sectors.

Given the territorial fragmentation of the natural gas market, the levels of switching at the local level, also detailing the type of customer, are shown in Table 4.14. As in past years, domestic customers located in Central Italy, also in 2015, exhibit liveliness well above that of the rest of the country, with switching rates that are typically higher than the national average, especially if rates calculated on customers are considered. In general, however, the territorial values maintain a discrete territorial correlation, especially in the Central North and in areas with a lower intensity of

consumption. Conversely, Southern Italy and the Islands exhibit, overall, less of a desire to change suppliers.

In the case of domestic levels, the percentages in Central Italy are on average 7.2%, in terms of customers and 8.7% in terms of volume, compared to the national average of 6.1% (customers) and 7.2% (volume). Similar data also emerged regarding the switch of condos with domestic use, also higher than the national average in the South and Central Italy.

Regarding public services, the rates in Central Italy were the highest in terms of customers (21.2% against 19.3% of the national average), but the North is in the lead in terms of volumes (30.5% against 28.8%); "other uses" in the North and Centre showed homogeneous values for customers (around 12.5%) and much larger volume percentages than in the South.

Complaints and reports

In the period between 1 January 2016 and 31 December 2016, there were 13,522 communications regarding the gas sector (about 34%). Compared to 2015, the number of communications thus underwent a very slight reduction. Again compared to the previous period, there was no significant difference in the ratio between requests for information and complaints (Table 4.15).

The most frequent topics of gas sector communications received by the help desk in 2016, subject to classification, were as follows: billing, bonuses, the market and contracts (Table 4.16). Compared to 2015, there was an appreciable decrease in gas bonus complaints and a slight one in complaints regarding markets, while those regarding the connections and works were basically stable.

Table 4.15 Gas sector communications received by the energy consumer help desk

	2015		2016	
	GAS	TOTAL(A)	GAS	TOTAL(A)
Complaints	13,240	36,734	12,941	34,447
Requests for information	516	4,041	581	4,519
TOTAL COMMUNICATIONS	13,756	40,775	13,522	38,966

(A) Total for the electrical, gas and dual fuel sectors.

Source: Energy consumer helpdesk.

As for billing, the main issues (all slightly reduced) concerned consumption (invoices on account, adjustments, correction requests), compliance with the regular periodicity of invoicing and carrying out readings or using the self-readings provided by the customers.

As for the market (which includes complaints handled according to the special conciliation procedure), most of the communications referred to issues regarding the proper application of the Code of Business Conduct, the unknown supplier, switching suppliers and double billing.

As for contracts, most of the communications involved non-payment, contract transfers, exercising the right of withdrawal and termination of the supply.

Finally, with regard to connections and works, complaints focused on activation and takeover issues as well as the time employed to provide such benefits.

Table 4.16 Topics of gas sector communications received by the energy consumer help desk

TOPICS	2015		2016	
	NUMBER	SHARE	NUMBER	SHARE
Billing	4.856	35%	3,667	27%
Market	2.248	16%	2,360	17%
Bonus	2.856	21%	3,929	29%
Contracts	2.142	16%	1,980	15%
Connections/Works	798	6%	788	6%
Technical Quality	30	0%	27	0%
Metering	308	2%	281	2%
Prices and rates	133	1%	144	1%
Commercial quality	229	2%	204	2%
No competence	156	1%	142	1%
TOTAL CLASSIFIED	13.756	100%	13,522	100%

Source: Energy consumer helpdesk.

4.2.2.2 Recommendations on supply prices, investigations and measures to promote effective competition

Measures to promote competition and recommendations on final sales prices

See section 3.2.2.2 for a description of the Regulatory Authority's analysis and recommendations on final sales prices in both the electricity and gas sector.

Conducting investigations and inspections and imposing measures for the effective promotion of competition

See section 3.2.2.2 again for the activities carried out by the Italian regulator in 2016.

4.3. Security of supply

In implementing the Third Energy Package, Legislative Decree no. 93/11 allocates functions and responsibilities having to do with this section of the Annual Report to the EC (i.e. monitoring the balance between energy demand and supply, predicting future demand and available supply, additional capacity and measures to cover peak demand or decreases in supply) exclusively to the Ministry of Economic Development.

5. CONSUMER PROTECTION AND DISPUTE SETTLEMENT IN ELECTRICITY AND GAS

5.1 Consumer protection

Compliance with Annex 1 of the Directive 2009/72/EC

Arts. 37, para. 1, point n), and 41, para. 1, point o) of directives 2009/72/EC and 2009/73/EC require that the regulator, in collaboration with other authorities, should ensure that the consumer protection measures, including those of Annex 1, are effective and enforced.

The implementation status of the measures provided for in this Annex did not undergo substantial changes In Italy; see details in Table 5.1 of the Annual Report of 2014. The only innovations concerned para. 1, points h) and j).

In particular Para. 1, point h) requires that customers be *allowed to handle their consumption data and that any registered supplier be allowed to have access to their own consumption data based on an explicit agreement free of charge*. In April 2015, the Regulatory Authority published a consultation document with guidelines on the various ways of making data available on historical power consumption and power withdrawal from low-voltage final customers (see next paragraph).

Para. 1, point j) requires that consumers *receive a final balance payment as a result of switching suppliers, after no later than six weeks from the switch*. The Authority provided[246] that the closing invoice be issued no later than 8 days before 6 weeks from the day the supply stopped or within 2 days before the 6 weeks expire in case of immediate invoice delivery (e.g. E-billing).

Guaranteeing access to consumption data

Legislative Decree no. 93/11 provides that, within six months from the publication of the decree (31st December 2011), the Regulatory Authority should adopt new rules or modify existing ones in order to "*... allow consumers to have access to relevant consumption data and require distribution companies to make consumer data accessible to suppliers while taking care of their quality and timeliness of delivery"*.

The billing regulation allows customers to be informed on the actual consumption data. In addition, customers can request the data from suppliers by means of complaints and requests; the suppliers will get the data from the distributors.

Considering the wide dissemination of smart meters in the electricity sector, final customers have available on electronic display the current consumption data, both in power and energy, as well the consumption values used for the last invoice broken down into peak/off-peak/mid-level hours.

[246] Resolution of 10th March 2016, 100/2016/R/com.

Moreover, the Italian legislation provides that the Integrated Information System (SII[247]) should develop the procedures for the centralised management of consumption data communication and their respective services, via a central register of the withdrawal points and an operator accreditation system; the first implementation phase of such procedures started and ended in 2012.

Finally, the Regulatory Authority introduced[248] its guidelines on the various ways of making data available on historical power consumption and power withdrawal from low-voltage final customers, in implementation of the rules of Legislative Decree no. 102/2014 adopting European Directive 2012/27/EU on energy efficiency.

The consultation scheme looks at two distinct types of historical consumption data:

- data corresponding to billing intervals;
- data corresponding to consumption time profiles.

Public service requirements

The public service requirements of Legislative Decree no. 93/11 (art. 35, para. 2 and art. 35, para. 3), beyond the ones discussed below concerning vulnerable customers, refer to the following:

- the right to switch suppliers within 3 weeks of the request;
- access to transparent information concerning tariffs and fees as well as basic contractual conditions;
- necessary measures to assure consumers of the dissemination with final customers of the consumer checklist developed by the European Commission, providing practical information on their rights;
- the Regulatory Authority defining criteria promoting energy efficiency such as to optimise electricity company use of electricity, including by providing rational energy management services, formulating innovative offers and introducing intelligent metering systems and smart grids.

Since 2008, the Single Buyer has set up an Energy Consumer Help Desk disseminating information to final users through a call centre.

With regard to domestic customers, the Regulatory Authority also introduced tools to:

- improve knowledge and understanding of the market and its rules, like the publication of the *Atlas of energy consumer rights* and the adoption of the resolution on the transparency of bills;
- facilitate the evaluation and selection of offers on the open market, like making available the Offer Finder service and requiring suppliers to submit a cost comparison chart to their end

[247] Adopted by resolution of 17th November 2010, ARG/COM 201/10.
[248] With the consultation document of 2rd April 2015, 186/2015/R/eel.

customers before concluding the contract.

Memoranda of understanding with consumers' associations were also activated to promote consumer information.

The *Code of Business Conduct of the sale of electricity and gas to final users*[249] regulates (by implementing widely the requirements of the third energy package) the right of access to transparent information concerning tariffs and fees as well as the basic contractual conditions of final customers.

Legislative Decree no. 21 of 21st February 2014, transposed into Italian law Directive 2011/83/EU on consumer rights, supplementing and amending some rules of the Consumer Code, with regard to the conclusion of contracts between suppliers and consumers, if these contracts are concluded at a distance or away from business premises.

Therefore, the Regulatory Authority adapted[250] the provisions of the Commercial Code of Conduct to the changes of the Consumer Code, concerning the pre-contractual requirements for the suppliers and the procedures for exercising the right of withdrawal by the final domestic customer. In this case, it was established that these adaptations be applied only to contracts entered into at a distance or away from business premises and that predictions about the indication of the after-tax price (except for the option to indicate the price including tax because of the supply structure) and the price reporting criteria be confirmed.

As for the start of contract execution, the right to reconsider was made to apply to all new domestic contracts, where the signing took place by means of distance communication or outside business premises. Information requirements were consequently introduced for suppliers for the benefit of the final customers, as well as provisions regarding reasonable and proportionate costs to be paid to suppliers in case the right of withdrawal is exercised, if the customer had already requested the execution of the contract.

The Commercial Code of Conduct was amended in 2016.[251] in the part that concerns suppliers' information requirements. In particular it was envisaged that customers should be informed of the possibility of access to free conciliation procedures and, limited to the domestic customers, should be informed of the list of bodies authorised for this purpose. Such information should be provided through contracts, the supplier's website or the supplier's responses to complaints. Responses to complaints must also indicate the automatic compensation for which the customer may be eligible.

The Regulatory Authority augmented switching procedures in 2011, in particular the information flows between distributor and supplier with regard to passing on the data and scheduling in such a way that the supplier can use them to bill according to established schedules, and facilitated said flows with communication standards. The period of three weeks for switching procedures laid down for the electricity sector by Directives 72/2009/EC and 73/2009/EC was also introduced in 2011. The same term was introduced in the natural gas sector in 2015.

[249] Annex to the resolution of 8th July 2010, ARG/COM 104/10.
[250] With the resolution of 4th June 2015, 269/2015/R/com.
[251] Resolution of 21st July 2016, 413/2016.

In 2015, the Regulatory Authority established[252] for the electricity sector that from 1st June 2016 all operations to move to a new supplier be carried out centrally through the Integrated Information System (SII), the national database to make the information exchange between operators in the sector more transparent and efficient. With the new rules, suppliers do not have go to the individual distributors but to the SII, through which they can perform the operation more rapidly and with greater ease. In April 2016 the Authority adopted further provisions[253] for the implementation of this reform in the electricity sector and for the reduction of switching times in the gas sector.

Definition of vulnerable customers - Electricity Sector

As for the electricity sector, the Legislative Decree no. 93/11 does not provide a specific definition of vulnerable customers (as in natural gas sector, see below). In any case, art. 35 on Public Service Requirements and Consumer Protection requires that all domestic consumers and small businesses (with fewer than 50 employees and a turnover of less than € 190 million) that do not choose their supplier on the open market are served as part of the standard offer service (art. 1, para. 2 of the decree law no. 73 of 18 June 2007, converted into law no. 125 of 3 August 2007). It also establishes that in relation to the development of competitive conditions in the retail market and as a result of the monitoring conducted at least every two years, the Ministry of Economic Development may adapt the **standard offer service** forms of provision, in particular with regard to industrial customers. The service fees are updated on a quarterly basis, by reference to market conditions related to liberalised stages of the supply chain (supply and marketing costs).

The Regulatory Authority initiated[254] in 2015 a process to define a reform roadmap with the general objective of developing an efficient retail electricity sales market, through the consolidation of the open market supply as the ordinary mode of supply even for small customers (domestic customers and small companies).

In keeping with the principle of proportionality, which is based on the adoption of measures consistent with the actual evolution of the market situation, the evaluation of the intervention options took place with respect not only to the supply conditions, but also demand conditions. In other words, the interventions were calibrated to take account of the actual competence of smaller customers and its evolution over time.

The Authority's intervention has therefore followed two lines of action.

The first one has provided for the reform of the standard offer in order to progressively make it more consistent with the role of universal service that it is intended to take on, with the establishment of the market as the only normal mode of supply of electricity for customers in general. This prompted the reassessment, among other things, of the procedures for determining the economic conditions of the standard offer regime, particularly as regards the fees to cover the costs of supply[255] and marketing costs, for which it is reasonable to expect - once the standard

[252] With the resolution of 14th October 2015, 487/2015/R/eel.
[253] Acting 28th April 2016, 208/2016.
[254] With the resolution of 4th June 2015, 271/2015/R/com.
[255] These costs are determined by the Authority at the end of each quarter for the next quarter and are therefore necessarily based on estimates of the costs of supply for the Single Buyer, inclusive of any cover against the volatility of wholesale electricity prices .

offer service evolves, taking on the connotation of universal service used by an increasingly limited number of customers - that the unit values per customer would increase above the current values, moving away from the price conditions to which customers normally have access when being supplied on the open market.

The second line of action is intended to support the maturation of the retail market in the segment of smaller customers, facilitating the access of these customers to the market, through an evolution of the protection mechanisms "guided and supervised" by the Authority, phasing out the current alternation between the standard offer regime and the open market; there are two initiatives in place for these purposes:

- the introduction of a supply which is similar to an open market supply, the *Tutela Simile*[256].
- the presentation of guidelines on free-price offers under equivalent protection conditions, PLACET offers [257] (free price offers under uniform contractual conditions).

For the description of these please refer to paragraph 3.2.2.2.

A protection mechanism has been active since January 2009, designed specifically for domestic customers in situations of economic hardship or serious health conditions, by which they receive a bonus or discount on the supply of electricity. As of 31st December 2016, the families that made use of the subsidy at least once were 2.7 million; the families with active bonus were 622,410 in 2016, a value that is essentially identical to the previous year. This is in addition to the 27,624 bonuses supplied to holders of purchase cards, which increased by 22.7% compared to 2015.

In 2012, changes were introduced to the electricity bonus rules for customers with serious health conditions (electricity bonus for physical hardship), described in detail in the Annual Report 2013. The beneficiaries in 2016 were 30,373, up 7.5% over the previous year. The bonus expenses are covered by the proceeds of a specific tariff component, paid by the customers who do not benefit from the subsidy.

As explained in chapter 2, the procedure for the implementation of the provisions of Legislative Decree no. 102 of 4th July 2014, transposing the European Directive on energy efficiency, was concluded in December 2015[258]. In particular, with art. 11, para. 3, of the Decree, the Regulatory Authority was called to adjust the components of the electricity tariff, in order to go beyond the progressive structure with respect to consumption by identifying tariff components consistent with service costs and also to stimulate virtuous behaviours and favour the achievement of efficiency objectives. The Decree also provides that the Regulatory Authority formulate proposals for the definition of new criteria to determine cost compensations to be granted to economically disadvantaged groups (social bonuses).

Since 2015, the Regulatory Authority has envisaged[259] some hypotheses of corrective action to the rules with the purpose of increasing the range of beneficiaries, the saving rate for owners,

[256] Resolution of 11th July 2016, 369/2016/R/eel.
[257] Consultation document of 30th March 2017, 204/2017/R/com.
[258] With the resolution of 2nd December 2015, 582/2015/R/eel.
[259] Report to the Parliament and Government of 22nd June 2015, 287/2015/I/com.

breaking down the bonuses and the saving rate based on the customer's consumption profile and household size and reducing the tax (excise) or parafiscal (general expenses) components based on the increase in costs related to the reform of electricity tariffs.

Pending the complete revision of regulations, the Regulatory Authority approved[260] some transitional provisions for the the calculation in 2016 of the valid bonuses for customers suffering financial hardship. Following the adoption of the Decree of the Ministry of Economic Development of 29th December 2016, the Authority adapted the rules for calculating bonuses for 2017.

Definition of vulnerable customers - Gas Sector

Legislative Decree n. 93/11 described as "vulnerable" domestic customers, non-domestic customers consuming less than 50,000 S(m^3)/year and final customers with utility accounts for public service activities, i.e. utility accounts owned by a public or private facility recognised as doing assistance work.

This provision was later amended by Decree-Law no. 69 of 21st June 2013, which provided that "*only for domestic customers*", as part of public service requirements, should the Regulatory Authority continue to update the standard offer. As a result of this change, the Regulatory Authority intervened to clarify that the following still have the right to be **served at standard conditions**:

- consumption points owned by a domestic customer;
- consumption points of condos with domestic use, with consumption not exceeding 200,000 S(m^3)/year;

Decree law no. 69/13 was ratified with Law no. 98 of 9th August 2013, confirming the termination of the standard offer for non-domestic final customers. The Regulatory Authority therefore took action to adjust the arrangements of the Consolidated Gas Sales Text (TIVG) with the provisions of the ratified Decree Law.

In parallel there were the Regulatory Authority's measures to reduce dependence of the standard offer updates on long-term import contracts (so-called "gas reform"). In particular the reform instructed that, for the purpose of updating the raw materials component, the reference to the oil price trend, as resulting from long-term contracts, be gradually replaced with the price trend resulting in short-term gas markets (spot markets). With the fourth quarter of 2013 the process was completed. The reference to long-term contracts was completely eliminated and replaced 100% with the price that is formed on the short-term market. Waiting for the Italian futures market to be fully operational, provided by Legislative Decree 93/11, the reference to prices that are formed on the Dutch TTF market was retained.

As already shown for the electricity sector, the Regulatory Authority initiated a procedure[261] to define the protection services Roadmap, while an Antitrust Draft Law' envisages the cessation of

[260] With the same resolution of 2nd December 2015, 582/2015/R/eel.
[261] With resolution of 4th June 2015, 271/2015/R/com.

price protections for small natural gas consumers. This process is directed to define a gradual absorption of price protection mechanisms, in order to permit the maturation of a mass retail market and, therefore, the voluntary and informed exit of the final customers from the current protection services toward the open market.

Legislative Decree no. 93/11 establishes that natural gas supply criteria and conditions should be identified and updated as regards the **last resort service** (FUI) for all vulnerable customers who remain without a supplier for reasons beyond their control.

As concerns the range of customers involved: the following customers are entitled to the last resort supply service[262]: disconnectable final customers, that is, domestic customers including condos with consumption not exceeding 200,000 S(m^3) per year, and the other customers with consumption not exceeding 50,000 S(m^3) per year, who are without a supplier for reasons beyond their control; non-disconnectable final customers, i.e. users related to public service activities, who are without a supplier for whatever reason. These provisions are confirmed in the arrangements defined by the Regulatory Authority as part of the *Consolidated Gas Sales Text* (TIVG). In particular this governs the procedures and times for activation and cessation of the service, as well as the procedures for the transfer of natural gas transmission and distribution capacities. In addition, the economic conditions that the parties are required to apply to the end customers served are set.

The supplier of the last resort service is identified through public proceedings, managed by the Single Buyer on the basis of the indications given by the Authority. In view of the termination of the services carried out by the suppliers identified in the month of September 2014, the Authority has initiated[263] a process to amend the guidelines applicable from October 2016.

The Authority has outlined[264] the possible amendments, also aimed at promoting the participation of stakeholders in public proceedings. The new rules were approved in August 2016[265], and with this the provisions contained in Italian Decree of 22nd July 2016 of the Ministry of Economic Development were also implemented. In September 2016 the Single Buyer carried out the procedures for identifying suppliers of the last resort service for the period 1st October 2016 to 30th September 2018.

The gas sector also features a **default service** whose purpose is to ensure the balancing of the distribution network and is intended for customers who are not entitled to the FUI service as they do not belong with the above mentioned types of customers. The default service was fully launched during the thermal year 2013-2014.

A social protection mechanism has also been active since 2009, designed specifically for domestic customers who are in situations of economic hardship or serious health conditions, by which they receive a gas bonus.

As of 31st December 2015, the customers who benefited from the economic hardship gas bonus amounted to 448,707 (essentially the same number as in the previous year), whose applications,

[262] The provisions of the legislative decree n. 93/11 (art. 7. paragraph 7) and the Ministerial Decree of 7th August 2013.
[263] Act 24th June 2016, 337/2016/R/gas.
[264] Consultation document 24th June 2016, 338/2016/R/gas.
[265] Resolution 4th August 2016, 465/2016/R/gas.

after passing all the Municipality checks with regard to eligibility requirements, were admitted to the subsidy after the checks of gas distribution companies. The households who took advantage of the subsidy at least once since the entry into force of the mechanism were more than 1.5 million.

For coverage of costs resulting from applying the gas bonus, the Regulatory Authority established, within the mandatory natural gas distribution and metering tariff, the GS component, charged to customers other than domestic customers. The value of the component is defined together with the tariff update. The funds charged to the State Budget are added to the funds raised from the customers.

Actions common to the electricity and gas sectors

The phenomenon of unsolicited contracts refers to the cases where final customers are coaxed into concluding unsolicited electricity and/or natural gas supply contracts, as a result of unfair business conduct, practiced by suppliers with the goal of acquiring such contracts by activating switching procedures at the expense of the customer and of the previous supplier, who would have been entitled to continue the supply. In view of the increasing number of reports received in recent years from final customers and their associations, the Regulatory Authority considered it necessary to take action to curb this phenomenon, also because of its negative impacts on the development of retail market competition. After carrying out reconnaissance activities and a detailed process of consultation, regulation on the matter was defined in April 2012 and was described in detail in the Annual Report 2013.

At the conclusion of a project aimed at simplification and greater flexibility and transparency, on 1st January 2016 the **Bill 2.0**[266] came into force, whose features were presented in the Annual Report 2015. In order to incentivise the abandonment of bills in paper format, the Authority also envisaged that, from the same date, a discount be applied to all customers served under the standard offer regime who had chosen a direct debit payment method or chosen to receive the bill in electronic format. The level of this discount was defined in December 2015[267].

Over the course of 2016 the Authority completed the process initiated regarding the **billing** of consumption to final customers in the electricity and natural gas retail market, also as a result of the issues that emerged in this area.

The Authority firstly intervened[268] to regulate the closing bill, which accounts for consumption up to the last day of the contractual relationship, in cases in which this relationship ends; subsequently[269] it regulated the period bills, issued over the course of the contractual relationship between supplier and final customer. With the latter measure the Authority approved the *Integrated text on the Authority's provisions for billing in the retail service for electricity and natural gas customers* (TIF[270]), which has the same field of application as the regulations concerning closing bills, whose provisions it incorporates.

[266] Approved by the resolution of 16th October 2014, 501/2014/R/com.
[267] Resolution 11th December 2015, 610/2015/R/com.
[268] Resolution of 10th March 2016, 100/2016/R/com.
[269] Resolution 4th August 2016, 463/2016/R/com.
[270] Annex A to Decision 463/2016/R/com.

Through the TIF, the Authority sought to define a single text containing all the provisions relating to billing of retail sales, which suppliers are required to comply with in the context of contracts with their final customers under standard offer regimes and/or in the open market and in the context of contracts under the *Tutela Simile* regime. With reference to the open market, suppliers are required to provide, in their range of offers, a contract with billing clauses that are exactly the same as those under standard offer regimes, while for other offers they are free to waive these clauses according to the provisions of the TIF; in these cases, however, information requirements for the benefit of the final customer are envisaged.

The regulation concerning closing bills entered into force in June 2016 and applies in all cases of termination of supply, i.e. in cases where, for whatever reason (change of supplier, deactivation of the point and transfer), the supply contract ceases between the supplier and final customer connected to the low voltage network, with the exclusion of supplies destined to public lighting, for the electricity sector, and excluding supplies below 200,000 S(m^3)/year, for the natural gas sector.

Specifically, the suppliers' and distributors' requirements in relation to the following were defined:

- the time period for issuing the bill, requiring that it should be issued, at the latest, eight days before the expiry of the six weeks from the date of termination of the supply or within two days before the expiry of the six weeks, in the case of immediate delivery (e.g. through electronic bill);
- the metering data to be used in the bill, requiring that the supplier prioritises the use of actual metering data received from the distributor and the self-readings validated by the same[271] and, only in the absence of these, estimated metering data. In the absence of actual data, the supplier may issue a closing bill based on estimated data, informing the customer that this bill is subject to further adjustment following the provision of the required information by the distributor;
- the procedures for the use of self-reading; in order to increase the availability of actual data, the Authority has required and regulated the communication of the self-reading in cases of change of supplier and transfer, in particular for customers in both sectors that do not have meters enabled with remote reading[272];
- the provisions on the information flows between vendor and distributor related to the transmission of the metering data for the termination of the supply;
- the introduction of compensation to be paid to the final customer by the supplier in cases of delayed issue of the closing bill, or by the distributor in cases where the metering data has not been provided to the supplier within a useful time for issuing the closing bill;
- the introduction of an additional compensation, that the distributor must pay to the supplier, if the time limit for providing the data is not respected, in all cases of termination of supply.

[271] The same resolution also governed the activities that the distributor must carry out in case of self-reading, requiring its validation and re-performance at the date of supply termination.
[272] This refers in particular to the withdrawal points treated on an hourly basis for the electricity sector and the redelivery points not equipped with smart meter for the gas sector.

The Authority has also started monitoring suppliers, with the objective of assessing possible changes to the structure and the level of the compensations introduced. In this context information was also acquired from distributors in order to verify the efficiency of the provision of metering data for the termination of supply.

In relation to so-called "billing period", for each sector and for each type of customer the TIF defines the frequency for issuing ordinary bills, at the same time envisaging that the open market supplier can only alter this by increasing it[273]. Furthermore, a time constraint to issuing the bill was introduced, equal to 45 days from the last consumption day charged in the bill, a constraint that may be different in the open market.

Similarly to what is required for closing bills, for period bills the supplier is also required to respect an order of priority when using metering data in its bills, which prioritises actual metering data provided by the distributor and self-readings communicated by the final customer and validated by the distributor[274], also establishing that where its own estimates are used, the supplier must determine the estimated metering data based on the information available on the customer's actual historical consumption, in order to minimise the deviation between actual consumption and estimated consumption. In any case the supplier shall carry out the necessary recalculations, when actual data is available, and to issue a bill based on actual consumption at least once a year and may only bill consumption from after the date of issue of the bill provided that this is appropriately disclosed to the final customer.

In order to allow easier understanding of the bills, the Authority has established that, in the event of monthly billing and if the final metering figure of the period is a self-reading, it is not possible to use mixed bills, i.e. bills containing both actual and estimated consumption.

For billing period, the Authority also considered it appropriate to incentivise the use of self-reading for customers in both sectors that do not have meters enabled with remote reading[275], introducing the requirement for all suppliers to adopt it, in periods well defined and indicated by the same, and envisaging specific procedures so that the final customer is updated on the opportunity to use self-reading. Additionally, with the TIF the possibility to communicate the self-reading was also extended to final customers of both sectors equipped with remotely managed meters, if they have received bills containing estimated data for two consecutive months, and the requirement was introduced to also consider and transmit to the distributor any self-readings received through a written complaint or a telephone report. In view of the self-reading requirements imposed on suppliers, the corresponding requirements of validation and transmission of the outcomes to the supplier were defined for distributors, with specific time limits.

The Authority has also provided for new compensations to be paid to the customer:

[273] For example, for domestic customers in the electricity sector a bimonthly billing frequency is envisaged; in the open market the supplier may waive this rule, envisaging a monthly frequency.

[274] In the open market the supplier can establish a different order of priority, provided that it issues a bill that contains actual consumption at least once per year.

[275] This refers in particular to the withdrawal points treated on an hourly basis for the electricity sector and the redelivery points not equipped with smart meter for the gas sector.

- from suppliers, in the event of issuing a period bill beyond the time limit of 45 days[276] from the last day of consumption charged on the bill;
- from distributors, in the event that the metering data have been estimated for two consecutive months for customers with remotely managed meters.

Alongside the TIF, the Authority has introduced[277] specific requirements for metering and **instalments,** in particular:

- as concerns metering, for both sectors the requirement of recording the causes (suitably coded) of failed reading attempts and the requirement of providing automatic compensations, paid by the distributor to the supplier, in case of delayed provision of metering data, have been introduced;
- for those carrying out the standard offer regime, the requirement of allowing the amounts billed to be paid by instalments, in cases of billing of anomalous amounts or non-compliance with the billing frequency envisaged in the TIF, has been introduced; this requirement is also set for suppliers in the open market, who may also offer improved methods for payment by instalments.

The abovementioned requirements and the TIF entered into force on 1st January 2017, with the exception of certain provisions for which different timings are envisaged[278].

[276] Or other period as may be specified by the supplier of the open market.
[277] With the same resolution 463/2016.
[278] In particular, that concerning self-readings by customers of the electric sector with remotely managed meters and the adoption of self-readings via complaint or telephone reports will enter into force in April 2017.

5.2 Dispute settlement

The Regulatory Authority conciliation service

The **energy customers conciliation service**, established by the Regulatory Authority to implement art. 44, para. 4 of Legislative Decree no. 93/11, has been active since 2012 in the management of disputes; it is managed in pooling by the Single Buyer and has been experimentally operational since 1st April 2013, starting full operation on 1st January 2016.

The conciliation service is a voluntary procedure of alternative dispute resolution that can be activated by the final electricity and natural gas customers for any problem (which does not deal with tax and fiscal profiles) against energy operators (suppliers and distributors) in case of failed or unsatisfactory reply to the complaint. The procedure takes place entirely online and in the presence of an impartial third party conciliator who's a mediation expert and by virtue of special training and updating sessions periodically organised by the Regulatory Authority in collaboration with the Single Buyer. Any final agreement is a valid transaction between the parties in accordance with art. 1965 of the Civil Code.

Due to its characteristics, the conciliation service is already in line with EU legislation on Alternative Dispute Resolution (ADR), most recently with Directive 2013/11 / EU of the European Parliament and of the Council of 21st May 2013 on alternative consumer dispute resolution and amending Regulation (EC) 2006/2004 and Directive 2009/22/EC.

The experimental phase of the conciliation service ended on 31st December 2015. The Regulatory Authority mandated[279] the Single Buyer to come up with an annual "bridge" project for the continuity of the conciliation service and for the identification of activities for the development of a subsequent three-year project, operational starting from 1st January 2017, in view of the changed scenario due to the implementation of the mandatory nature of the conciliation attempt. This project was later approved by the Regulatory Authority[280].

From its operational launch (1st April 2013) to the 31st December 2016 the conciliation service received a total of 7,943 activation requests. In 2016 main access channel was the associations of final domestic customers (59%). 28% of the requests were due to the channel of delegates other than the associations and the final customer activated the conciliation service directly in 13% of the cases. Most of the conciliation service activation requests concerned final domestic customers and the electricity sector. From the aggregation of the data we obtain also the prevalence of domestic customers in both the electrical (67%) and gas sector (89%). As for the subject matter of the disputes, the mention of which is at the discretion of the final customer, it emerged that 72% of the conciliation service activation requests had to do with disputes regarding billing matters, including, among other things, disputes on adjustments, readings, self-readings, consumption, billing frequency, invoicing correction and metering. As for the estimated value of the dispute, it was indicated in 53% of activated disputes: of these, 82% did not exceed € 2,000 (small claims threshold under Regulation (EC) 861/2007 of 11th July 2007, establishing a European procedure for small disputes). The percentage of activation requests admitted to the conciliation service was

[279] With resolution of 5th November 2015, 522/2015/E/com.
[280] With resolution of 11st December 2015, 598/2015/E/com.

equal to 79%; the inadmissibility cases (20%) were mainly due to non-successful transmission of the documentation to be attached to the activation request and breach of procedural deadlines. In 1% of cases the request was withdrawn.

Operator (suppliers or distributors) participation in the procedure activated by their customers took place on a voluntary basis until 30th June 2015[281], whereas after this date participation became mandatory for electricity standard offer market operators and distributors of both sectors. As of 31st December operators participated in the procedure for 69% of admitted requests; in this context, the disputes successfully settled were 80% of those concluded.

With the approval of the new art. 141. paragraph 6, letter (c) of the Consumer code - which has updated art. 2. paragraph 24(b) of Italian Law n. 481/95, allocating the Authority the power to regulate, with its measures, the methods for performing the extra-judicial dispute resolution procedure - the conciliation attempt becomes a condition of admissibility of the action before the Judicial Authority for disputes in the regulated sectors[282].

The Authority has implemented the aforementioned legislation with the adoption[283] of a comprehensive and analytical text of the provisions applicable to such a case, collected in the **Integrated Text on Conciliations** (TICO)[284], which introduced a procedure for trialling mandatory conciliation attempts through the Conciliation Service and has identified the alternative procedures available. The TICO has incorporated the previous regulations[285], the effects of which have ceased on 1st January 2017, with the exception of conciliation requests submitted by 31st December 2016 and up to their conclusion.

The TICO, operational from 1st January 2017 for both the electricity and gas sectors, shall apply to disputes which have arisen between final electricity customers supplied at low and/or medium voltage and final natural gas customers, as well as final customers of gases other than natural gas distributed by means of the urban networks supplied at low pressure, both domestic and non-domestic, including *prosumers* (electricity producers and consumers and operators - suppliers and distributors - and, limited to the *prosumer,* also the GSE.

The following disputes are excluded from the field of application of the TICO: disputes relating exclusively to tax and fiscal profiles; those that the customer could not possibly present in court because it is time-barred; those for which injunctions, class actions and other actions to protect the collective interests of the consumers and users promoted by Consumer Associations pursuant to the Consumer Code have not been promoted; those subject to special resolution procedures, unless the customer also requires the award of damages.

In any case, the mandatory conciliation attempt does not preclude the granting of urgent and precautionary judicial measures.

[281] Unless the operator itself had not committed to biannual participation to the Service through inclusion in the appropriate list of ADRs published on the Authority's website.
[282] Italian Legislative Decree n. 130/15 implemented Directive 2013/11/EC of the European Parliament and of the Council of 21st May 2013 in Italian law on the ADR for consumers, amending Regulation (EC) 2006/2004 and Directive 2009/22/EC (Directive on the ADR for consumers).
[283] Resolution of 5th May 2016, 209/2016/E/com.
[284] Annex to resolution of 209/2016/E/com.
[285] Annex to resolution of 21st June 2012, 260/2012/E/com.

The Authority has also extended[286] the obligation to participate in the conciliation attempt to all operators (with the exception of last resort suppliers- FUI), which until 31st December 2016 was only valid for suppliers operating under standard conditions, electricity and gas distributors and GSE (for disputes relating to simplified purchase and resale arrangements and on-the-spot trading) and limiting this obligation to participate to the first meeting. Any failure to comply with this obligation may be punished by the same Authority in accordance with the legislation in force. However, within five days prior to the date of the first meeting the operator convened may reasonably justify non-participation in the meeting set by the Conciliation Service, provided that these reasons refer to one of the causes of inadmissibility of the conciliation attempt and subject to self-declaration by the final customer; these justified reasons, if proven, are communicated to the final customer and result in archiving of the request.

The condition of admissibility for judicial proceedings shall be deemed to be met if the first meeting through the conciliation service concludes without agreement, including cases of non-appearance of the counter-party.

With reference to the conciliation service it was established, among other things, that:

- the procedure cannot be activated for those disputes for which a mandatory conciliation attempt is pending or has already been carried out in accordance with the Authority's regulations;
- the request for conciliation can be submitted after 50 days from the submission of the complaint to the operator in the event of a lack of response (and without prejudice to the possibility of activating the procedure after the reply to the complaint is received, if earlier), and within a maximum period of one year from the sending of the complaint;
- the request for conciliation is inadmissible: lack of prior complaint, failure to respect the procedural deadlines for activation, dispute pending or handled by other out-of-court dispute resolution body (*ne bis in idem*), lack of one of the formal elements of the conciliation request provided for by the regulations, dispute duplicates a request already filed for reasons other than formal shortcomings of a conciliation request ;
- the procedure can be activated through the telematics platform provided by the Conciliation service or, alternatively, but only for domestic customers not assisted by a delegate, by mail or fax, without prejudice to the online performance of the procedure itself;
- the first meeting is set within 30 days from the submission of a complete application, but no earlier than ten days from the communication to the parties of the date of the meeting;
- both parties, even separately, can request the Conciliation service to postpone the first meeting, only once, due to justified and documented impossibility to participate, provided that the party concerned requests this postponement within five days prior to the date of the first meeting and at the same time indicates a later date not more than seven days from the date of the postponed meeting;
- if in the request for conciliation the final customer documents the suspension of supply due to an invoice promptly challenged with a complaint to the operator, the meeting for the conduct

[286] In accordance with art. 2. paragraph 12(h) of Italian Law n. 481/95.

of the conciliation attempt is set within 15 days from the complete application, rather than within the ordinary 30 days;

- the time limit for the conclusion of the procedure is equal to 90 days from the submission of a complete application, which may be extended by a further 30 days, on the joint request of the parties and by the Conciliation Service, also at the request of the conciliator who deems it appropriate due to the complexity of the dispute, after notice to the parties;
- the agreement signed by the parties and by the conciliator has the value of an enforceable instrument in accordance with art. 2, paragraph 24 letter b) of Italian Law n. 481/95;
- the conciliators, both internal and external to the Conciliation service, must possess specific requirements[287] (training in the field of mediation achieved through a body referred to in art. 17 of Italian Ministerial Decree of 18th October 2010, n. 180, integrity, general understanding of the law and specific knowledge of the sectors governed by the Authority by attending specialist courses or seminars lasting not less than fourteen hours and updates at least every two years lasting not less than ten hours) and must ensure the neutrality, even by means of respect for a specific code of ethics.

Other conciliation services

Italian legislative decree n. 130/15, transposing directive 2013/11/EC of the European Parliament and of the Council of 21 May 2013 on the alternative resolution of consumer disputes (directive on *Alternative Dispute Resolution* (ADR) for consumers), among other things, has appointed the Authority, for the regulated sectors, as the competent Authority for the ADR of consumers. The Authority has been assigned many tasks, including the institution, the maintenance and the publication of the list of ADR bodies delegated to manage national and cross-border disputes, which fall within the field of application of the said decree and which comply with the relevant requirements.

As of 31st March 2017, the Regulatory Authority's ADR list includes, in addition to the conciliation service, three mediation bodies[288] and five joint conciliation bodies, with a commitment, by means of application for registration, to adapting to the requirements of Part V , Title II-bis, of the Consumer Code and of the regulations adopted by the Authority in December 2015[289]. On the basis of the certification of the specialist training of the individuals appointed by the dispute resolution bodies, all the ADR bodies have been registered with reference to both the electricity and gas sectors; four bodies (two of mediation and two joint conciliation) were also registered with reference to the water services sector.

The Authority continues to support the joint conciliations carried out by the bodies registered in the Authority's ADR list including through the payment of a contribution to the associations themselves in the event of the successful conclusion of the procedure, to be charged to the Fund arising from sanctions imposed by the Authority.

[287] Art. 5. paragraph 5.2(c) of the TICO.
[288] Resolutions 10th March 2016, 91/2016/E/com; 24th March 2016, 122/2016/E/com; 31st May 2016, 279/2016/E/com; 2nd February 2017, 39/2017/E/com.
[289] Annex to the resolution of 17th December 2015, 620/2015/E/com.

The list and the relative updates are transmitted to the Ministry of Economic Development, as the sole reference point, for the purposes of the relative communications to the European Commission, which draws up the consolidated list of ADR bodies operating in the European Union. To this end, each body is required to participate in the platform *Online Dispute Resolution* (ODR), an interactive website managed by the European Commission, in accordance with Regulation (EU) 524/2013 of the European Parliament and of the Council of 21st May 2013, on the online resolution of consumers' disputes.

As concerns information, an *ad hoc* web page has been developed on the Authority 's website concerning the ADR and ODR, where you can view and download the Authority's ADR list as well as consult specific FAQs regarding the registration of bodies in the Authority's ADR.

Alternatively, the final customer can carry out the mandatory conciliation attempts for judicial purposes by using:

- the conciliation procedures through the Chambers of Commerce, as envisaged by art. 2. paragraph 24, letter b) of Italian Law n. 481/95, following the stipulation of a special convention with Unioncamere. The convention, which was signed on 28th December 2016 in order to ensure uniformity of treatment nationally, has identified, safeguarding the specific nature of the areas for which the Authority is responsible, principles and methods applicable to such procedures. In particular, among other things, the convention: ensures inexpensive access to the procedure, excludes the possibility for the mediator to formalise proposals for agreement in accordance with Italian Legislative Decree of 4th March 2010, n. 28, makes the assistance of a legal expert during the procedure optional, enables the enforceability of the agreement and lays down specific forms of monitoring;
- the procedures performed by one or more mediation bodies registered to the Ministerial Register referred to in Italian Legislative Decree n. 28/10, with which the Authority considers it appropriate to sign specific protocols, in a second phase and on a residual basis.

With reference to the alternative procedures for carrying out the attempt, the relevant regulatory and procedural rules in place for such procedures remain in force, including those relating to the participation of the counter-party and the possible enforceability of the agreement.

With particular regard to the Chambers of Commerce, Unioncamere has notified of the membership of a group of about forty Chambers of Commerce, which guarantee a significant territorial coverage. For the purposes of the operation of the participating Chambers, it was agreed that the participating mediators and staff of the Chambers of Commerce must be previously trained in the areas for which the Authority is responsible and that such training should be equal to 14 hours (with two-yearly updates of 10 hours), also by means of remote connection through *web-conference* and/or *e-learning*.

By virtue of the approval of the project 2017-2019 for the implementation of TICO and regulation of the functions entrusted by the Authority to the Single Buyer from 1st January 2017[290], over the course of 2017, the progressive operation of the new Conciliation Service platform, for adaptation to the TICO, was envisaged with a view of further developing the information system and

290 Annex A to resolution 383/2016/E/com.

providing greater efficiency and effectiveness, also in the light of the expected increase in incoming volumes.

With regard to the information on the Authority's website in relation to out-of-court dispute settlement procedures, the specific web page has been updated as a result of the entry into force of the TICO. The update involved, among other things, the provision of the tutorial and FAQS, also available in English. The information on the Conciliation Service is updated every six months. There is also a special alert on the compulsory nature of the conciliation attempt as a condition of admissibility to judicial action for disputes in the areas covered by the Authority.

We have also created a web page dedicated to the Chambers of Commerce party to the convention signed by the Authority and Unioncamere and, for final domestic customers, to ADR bodies as well.